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"SUPPORT TO A RESEARCH: EXPORT CONTROL BY WTO MEMBERS AND RECOMMENDATIONS FOR VIET NAM"

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I. Introduction

Vietnam and the European Union (EU) are preparing themselves for the negotiations of a free trade agreement (FTA) between the EU and Vietnam.

Consistently with the new generation of EU FTAs, the EU-Vietnam FTA is expected to cover more issues than the classical elimination of customs duties by the parties for substantially all trade. One of these new issues concerns the European Union's desire to regulate the use of export control regulations in the FTA.

Vietnam maintains several export control regulations, which can be classified according to three objectives, whether or not they are explicitly stated:

- Export controls for security reasons: the Government of Vietnam controls the exports and the destination of military goods and any other goods which it considers could have a military use and should not be exported to certain types of customers;
- Export controls for environmental, infrastructural or archeological reasons: the Government of Vietnam restricts the exportation of certain commodities, natural resources and goods of an archeological, historical or artistic heritage, in order to avoid their depletion in its territory. This category also encompasses the control of exports of goods, the transportation of which would be either too polluting or destructive of the existing infrastructure (e.g. heavy lorries destroying the roads in remote areas);
- Export controls for economic reasons: the Government of Vietnam restricts the exportation of goods, which constitute an important input for its domestic industry, in order to avoid either lack of availability of these goods or to reduce their domestic price. In the latter case, the Vietnamese downstream industry would have access to cheaper input material and hence enhance its competitiveness.

Typically, the focus of the negotiations would be on the third category of export controls. However an economic objective can also be "hidden" behind measures formally belonging to the first and second categories. Hence it is important to analyze the three categories.

This report intends to facilitate the preparation by the Government of Vietnam of its negotiations with the EU regarding export controls. The Government of Vietnam has requested in this regard information pertaining to the experience of other countries in export control regulations, the economic impact of these regulations on the economy of these countries and the consistency of export control regulations with existing multilateral and bilateral trade agreements.

This report provides the requested information and it also describes the situation in Vietnam. The Vietnamese contributors to this report listed the export control measures currently in

place in Vietnam and they assessed their impact on the Vietnamese economy. On that basis, and in light of the research regarding the other countries and the existing international trade agreements, this report provides certain observations on the Vietnamese export control policy, as further input for the determination of Vietnam's negotiating position regarding this matter.

This report is divided in the following chapters:

1. The first chapter provides a schematic analysis of the export control measures applied by some of the main trading partners. The countries selected are the US, EU, India, Brazil and China. The US and the EU are two industrialized countries and the EU itself is demanding Vietnam to address the issue of export controls in the FTA. Hence it is important to understand its practice in this regard. India, Brazil and China are important emerging economies and it is useful to understand how they distinguish themselves from the industrialized countries. The export control regimes of countries in earlier stages of development and of LDCs are not addressed, since Vietnam does not necessarily want to benchmark its policies according to those of these countries.

2. The second chapter provides an analysis of the efficiencies of export control measures of the five above-mentioned countries. It first provides general background theoretical information on the economic impact of the export control measures on national economies and competitiveness. It then addresses the specific impact of export restrictions applied by the above-mentioned countries, in particular on trade flows, prices, and other relevant variables.

3. The third chapter describes the main concerns regarding the consistency of certain export control measures with the WTO and free trade agreements of the EU and third countries. It thus addresses the international trade rules governing export taxes and export restrictions, and those that enable the adoption of trade restrictive measures for non-trade policy objectives (such as the environment and national security). Furthermore, considering that certain export control measures have an impact on the price of input material for a downstream industry, this chapter also addresses the rules governing subsidies. Key case-law of the WTO already exists regarding the issue of export controls. Not only this concerns the most obvious case "China – raw material", but also other cases which have an impact on the analysis under the Agreement on Subsidies and Countervailing Measures (such as Canada – feed in tariffs). Such case law is examined as well.

4. The fourth chapter deals specifically with Vietnam's export control policy and its impact on the economy of Vietnam (trade, prices, etc.). This chapter is written by the Vietnamese contributors and it provides their views regarding the optimal Vietnamese export control regime in this regard.

5. The conclusion summarizes the main legal and economic issues pertaining to export controls that should be considered in the preparations of FTA negotiations regarding this matter and it provides some observations with respect to the Vietnamese export control policy.

In this way, the report will have covered all relevant information which will enable the Government of Vietnam to better prepare for negotiations and assess its negotiating position with respect to its export control regime.

II. Analysis of the export control measures applied by some of the main trading partners

II.1 Key preliminary considerations on the export control measures applied by Vietnam's main trade partners

The composition of each country's export restrictive measures varies considerably according to the country's developmental status. Similarities exist in the mix of measures adopted by industrialized countries and those instituted or maintained by emerging economies.

Specifically, the United States and the European Union do not generally apply taxes or other restrictions on exports unless these are in accordance with international agreements, particularly multilateral environmental agreements (MEAs). There are few instances were export restrictions concern economic objectives in these countries, such as the gas sector in the United States and the agricultural sector in the European Union. However, both countries have adopted very advanced export controls systems on defence items, or "dual-use" items[1] for foreign policy and security reasons as well as for short-supply purposes.

The emerging economies like Brazil, China, and India have on the contrary progressively recurred to export taxes, prohibitions and various forms of quantitative restrictions on a wide range of primary commodities, namely food and agricultural raw materials, and industrial raw materials such as energy and non-energy minerals and metals. The most commonly stated rationales for such measures are the need to ensure domestic supply and "adequate" domestic prices, to offset tariff escalation and to avoid price fluctuations, along with public policy goals such as environmental protection and preservation of exhaustible natural resources.

[1] Dual-use items are defined as "items, including software and technology, which can be used for both civil and military purposes, and shall include all goods which can be used for both non-explosive uses and assisting in any way in the manufacture of nuclear weapons or other nuclear explosive devices". Council Regulation (EU) No. 428/2009 of 5 May 2009, Article 2 (1).

This fundamental difference reflects the diversities of national interests and concerns among the various countries: on the one hand, the industrialized countries are net import dependent on primary supplies from the developing countries to feed their industry structure. Their export control measures mainly focus on a nucleus of high-technology products to prevent weapons proliferation and terrorism. On the other hand, the emerging economies use export restrictions in combination with industrial policy measures as an instrument to accelerate their economic transition, diversify their exports and upgrade their industrial structure to avoid dependence on commodity-led growth.

Interestingly, all countries maintain export prohibitions and licensing requirements in compliance with MEAs. This concerns the Convention on International Trade on Endangered Species of Fauna and Flora (CITES), the Montreal Protocol on Substances that Deplete the Ozone Layer, the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, the Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances; the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and the Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Their Disposal. The export control measures adopted in this context aim to ensure environmental and human health protection, and preservation of natural resources.

II.2 The measures applied in the United States

A. Export taxes

The United States does not apply any export tax on goods, since the U.S. Constitution's Export Clause bars Congress from imposing such taxes[2].

B. Export controls on dual-use items for security reasons

The United States maintains an articulated export control system for national security and foreign policy purposes, including for reasons of short-supply, on defence items or munitions[3], dual-use goods and technology, and items that would assist in the proliferation of nuclear, chemical, and biological weapons or the technology used to deliver missiles[4].

[2] According to Article I, Section 9 of the Constitution of the United States: "No tax or duty shall be laid on articles exported from any State". For a detailed description of the rationale behind such prohibition see Jensen, E., The Export Clause, 6 Florida Tax Review 1 (2003).

[3] A defense item is defined as an item that is "specifically designed, developed, configured, adapted, or modified for a military application", has neither "predominant civilian application" nor "performance equivalent to an item used for civilian application…and has significant military or intelligence application such that control is necessary". *International Traffic in Arms Regulations*, 22 CFR 120.3.

[4] The current U.S. system of export controls dates back to the First World War, and since then it has been either reinforced or softened according to U.S. national security and foreign policy goals. Cupitt, R. T.,

The U.S. system is implemented through several licensing and enforcement agencies, to which Congress has delegated authority to regulate foreign commerce and control exports.

a) The U.S. Munitions List (USML)

Under the *Arms Export Control Act* (AECA) of 1976[5] and the *International Traffic in Arms Regulation* (ITAR)[6], manufacturers, exporters, and brokers of items on the U.S. Munitions List (USML)[7] must register with the Department of State via the Directorate of Defence Trade Controls (DDTC) and pay a yearly fee[8]. Registration does not confer *per se* any export privileges but it is a prerequisite to export licensing approval. Submitting a licence application is mandatory for any item under USML[9]: companies must certify eligibility to export and an understanding of the law governing such exports; the licence application review process verifies technical specifications, ultimate end-use and end-users of the items as well as all parties involved in the proposed transactions, which are checked against a "watch list" of known or suspected export violators. The average license processing time was 17 days in FY2011[10]. An exporter may ask for a review of a decision by the DDTC concerning refusal, revocation or amendment of an export licence, in which case the Under Secretary for Arms Control and International Security has the authority to make a final decision[11]. However, out of a total of over 82,000 applications for export licences or

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Reluctant Champions: Truman, Eisenhower, Bush and Clinton: U.S. Presidential Policy and Strategic Export Controls (Routledge: 2000). During the last decade, in particular, concerns about Iran and other States' efforts to develop nuclear, chemical and biological weapons technology, together with the terrorist attacks of September 2001, have led the United States to progressively strengthen global regulations on strategic trade controls to prevent mass destruction weaponry and military sensitive technologies proliferation in line with UN Security Council Resolution 1540 of 28 April 2004.

[5] 22 USC Chapter 39.

[6] The ITAR implements the AECA. Department of State online information "International Traffic in Arms Regulations". Viewed at: http://pmddtc.state.gov/regulations_laws/itar_official.html (visited 15 June 2013).

[7] 22 CFR Section 120-130. The U.S. Munitions list enumerates all defence and dual-use items subject to the U.S. export control system. It includes items regrouped into twenty-one category: firearms; artillery projectors; ammunition; launch vehicles, guided missiles, ballistic missiles, rockets, torpedoes, bombs and mines; explosives, propellants, incendiary agents, and their constituents; vessels of war and special naval equipment, tanks and military vehicles; aircraft, [spacecraft] and associated equipment; military training equipment; protective personnel equipment; military [and space] electronics; fire control, range finder, optical and guidance and control equipment; auxiliary military equipment; toxicological agents and equipment and radiological equipment; spacecraft systems and associated equipment; nuclear weapons design and test equipment; classified articles, technical data and defense services not otherwise enumerated; and submersible vessels, oceanographic and associated equipment, in addition to two categories of reserved products.

[8] Fergusson, I. F. and Kerr, P. K., The U.S. Export Control System and the President's Reform Initiative, CRS 41916, 19 April 2013. Viewed at: http://www.fas.org/sgp/crs/natsec/R41916.pdf (visited 15 June 2013), at 6.

[9] An exporter may make a self-determination, based on the USML, as to whether the item is controlled on the USML. However, any exporter seeking a formal government opinion can request a Commodity Jurisdiction (CJ) determination. An appeal of a CJ determination may be made to the Managing Director of the DDTC for a final determination. Department of State online information "Commodity Jurisdiction" Viewed at: http://www.pmddtc.state.gov/commodity_jurisdiction/index.html (visited 15 June 2013).

[10] Fergusson, *supra* n. 8, at 6.

[11] 22 CFR 128.13.

authorization in 2011, less than 1% was refused and there were no appeals of these decisions[12].

Civil penalties for violations of AECA and ITAR include the payment of fines to the U.S. Treasury and a Consent Agreement, under which the company is required to institute enhanced compliance measures[13]. Since 2010, eight Consent Agreements were imposed[14]. U.S. Immigration and Customs Enforcement, Homeland Security Investigations (HSI) works with the Department of Justice to investigate potential criminal violations of the AECA and ITAR[15].

b) Commerce Control List (CCL)

Under the *Administration Act* (EAA)[16] and the *Export Administration Regulations* (EAR)[17], the Bureau of Industry and Security (BIS) in the Department of Commerce administers the export control system of dual-use items for national security, foreign policy and short supply purposes. Products included in the Commerce Control List (CCL)[18] may require a licence from the BIS before they may be exported or re-exported depending on the item, the country of destination, its end-use, and the end-user and it is up to the exporter to find out if a licence is needed (unless informed directly by the BIS). The rules are frequently updated and made available on the BIS website[19]. Most items on the CCL are controlled on foreign policy-based grounds pursuant to four major multilateral non-proliferation export control regimes: the Wassenaar Arrangement on transfers of conventional arms and dual-use goods and technologies, the Missile Technology Control Regime (MTCR), the Nuclear Supplier Group (NSG) on the non-proliferation of nuclear weapons, and the Australia Group (AG)[20]. Foreign Policy controls may be unilateral or multilateral. Items are controlled unilaterally for anti-terrorism, regional stability or crime control. Anti-terrorism controls forbid almost

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[12] Trade Policy Review – Report by the Secretariat, United States, WTO Doc., WT/TPR/S/275/Rev.1, 12 February 2013, Part 3, para. 96.

[13] 22 CFR 127.10.

[14] Department of State online information "Consent Agreements". Viewed at: http://pmddtc.state.gov/compliance/consent_agreements.html.

[15] 18 USC Section 554.

[16] Although the last incremental extension of the EAA expired on August 21, 2001, the export licensing system created under the authority of the EAA has continued in effect by a presidential declaration of a national emergency and the invocation of the International Emergency Economic Powers Act (IEEPA). 50 USC Sections 1701 *et seq.* Fergusson, *supra* n. 8, at 2.

[17] The EAA is implemented by the Export Administration Regulations. 15 CFR 730 *et seq.*

[18] 15 CFR Chapter VII, subchapter C, section 774. The CCL is a list of specific goods, technologies and software that must be controlled by the EAR. It is composed of 10 categories of items: nuclear materials, facilities, and equipment; materials, organisms, microorganisms, and toxins; material processing; electronics; computers; telecommunications and information security; lasers and sensors; navigation and avionics; marine; and, propulsion systems, space vehicles, and related equipment. Each of these categories is further classified under five function groups: equipment, assemblies, and components; test, inspection, and production equipment; material; software; and technology. Each controlled item has an export control classification number (ECCN) based on the above categories and functional groups, which is accompanied by a description of the item and the reason for control. Fergusson, *supra* n. 8, at 3-4.

[19] BIS online information. Viewed at: http://beta-www.bis.doc.gov/index.htm (visited 16 June 2013).

[20] For more information on these regimes see Woolf, A. F., Nikitin, M. B., Kerr, P. K., Arms Control and Non Proliferation: A Catalogue of Treaties and Agreements, CRS Report RL33865.

entirely exports directed to Cuba, Iran, Sudan, Syria, and North Korea. National security controls are based on a multilateral control list; however, the designation of countries to which those controls are applied is based on U.S. policy[21].

All applications for export licences are reviewed within nine days of receipt, unless the license is referred, when appropriate, to other agencies, in which case the agency must recommend that the application be approved or denied within 30 days[22]. Applicants denied an export licence application may appeal to the Under Secretary for Industry and Security. In the past two years, the BIS has received between 10 and 15 appeals. In FY 2011, the BIS processed 25,093 export licence applications valued at approximately US$89.6 billion up from 21,660 applications processed in FY 2010[23].

The Office of Export Enforcement (OEE) at BIS and HSI are responsible for investigating potential criminal violations of the dual-use export control laws. HIS and the OEE work with the Department of Justice to prosecute criminal cases, and the Office of Chief Counsel for Industry and Security to impose civil fines and deny export privileges[24].

c) Nuclear facilities, materials and equipment

Nuclear facilities, materials and equipment are subject to specific export controls under the *Atomic Energy Act* of 1954, as amended, in addition to those provided for in the EAA and the AECA. The Nuclear Regulatory Commission (NCR), established as an independent agency under the *Energy Reorganization Act*, is responsible for administering export controls on such items[25]. The Department of Energy is responsible for the re-export of such nuclear materials and equipment and the export of nuclear technology. An exporter must submit an application to the NCR and decisions may be appealed to the federal courts of appeal[26].

d) Reform

The U.S. global export control system is currently undergoing a process of comprehensive review following the 2009 President's launch of the Export Control Reform Initiative (ECR Initiative) aimed at rationalising the system through the creation of a single licensing agency, a single control list, a single enforcement structure, and a single information technology system[27]. So far, efforts have been mainly directed towards the rebuilding of the

[21] Fergusson, *supra* n. 8, at 4.
[22] Executive Order 12981, 60 FR 62981, 8 December 1995.
[23] Trade Policy Review – Report by the Secretariat, United States, WTO Doc. WT/TPR/S/275/Rev.1, 12 February 2013, Part 3, para. 103.
[24] Fergusson, *supra* n. 8, at 4.
[25] The NCR licensing policy and control list are located at 10 CFR 110.
[26] Trade Policy Review – Report by the Secretariat, United States, WTO Doc. WT/TPR/S/275/Rev.1, 12 February 2013, Part 3, para. 106.
[27] Fergusson, *supra* n. 8, at 11 *et seq.* See Export.gov online information, "President's Export Control Reform Initiative". Viewed at: http://export.gov/ecr/ (visited 16 June 2013).

U.S. export control lists[28]. The Export Enforcement Coordination Center (E2C2) was also created in 2012 with the aim to improve the enforcement of the export control system[29].

C. Other export controls

The United States maintains an export ban on mercury for environmental purposes[30], as well as the usual export bans on endangered species, narcotic drugs, hazardous waste and pesticides.

The United States also controls its exports of liquefied natural gas (LNG), although such exports have been booming in the recent past. Pursuant to the Natural Gas Act, exports of LNG require authorization from the Department of Energy (DOE)'s Office of Fossil Energy and from the Federal Energy Regulatory Commission, which must decide if such exports are in the "national interest". Exports to FTA countries are presumptively considered "in the national interest" and hence are automatically authorized. This is not the case for the non-FTA countries, although 95% of exports to these other countries were authorized, despite considerable delays to process their applications[31]. Part of the determination of "national interest", relies on the impact of the exports on prices and general economic impact. Other criteria the DOE listed are "domestic need, adequacy of supply, the environment, geopolitics, and energy security"[32].

D. Summary

In summary, the United States applies the three categories of export controls identified in the introduction to this report, namely those for security reasons, those for environmental reasons and, to a lesser extent, those which have an economic rationale, such as the controls on the exports of liquefied natural gas.

II.3 The measures applied in the European Union

A. Export taxes and measures of equivalent effect

The European Union does not apply export taxes, in principle.

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[28] Trade Policy Review – Report by the Secretariat, United States, WTO Doc. WT/TPR/S/275/Rev.1, 12 February 2013, Part 3, paras. 107-109.
[29] *Id.*, para. 110.
[30] Mercury Export Ban Act (8 pp, 166K), 14 October 2008.
[31] See US Congressional Research Service, U.S. Natural Gas Exports: New Opportunities, Uncertain Outcomes, 8 April 2013, at 9.
[32] *Id.*, at 13.

The Common Agricultural Policy, however, enables the levy of export taxes on certain products if goods are in short supply in the EU or the EC price falls below world market level. They are intended to ensure that a regular supply of goods remains within the EC[33]. Currently, there are no such levies imposed. A system of minimum export prices is also established for live plants[34].

B. Export controls on dual-use items for security reasons

Export prohibitions are adopted by the Community and its Member States as part of the Common Foreign and Security Policy (CFSP) and to implement UN Security Council Resolutions. The export of arms may also be subject to prohibition as part of EC sanctions against certain countries. Currently, arms embargoes are in place against Burma (Myanmar), Côte-d'Ivoire, China, Congo (D.R.), Iraq, Iran, Lebanon, Liberia, North Korea, Sierra Leone, Somalia, Sudan, Uzbekistan, and Zimbabwe[35]. Arms controls are implemented at the member State level. Member States follow the EU Code of Conduct on Arms Exports[36] when assessing applications to export arms listed in the EU Common Military List, which was updated in 2012[37].

The EU export control regime is governed by Regulation No. 428/2009[38]. The list of controlled dual-use items is set out in Annex I to Regulation No. 428/2009[39]. This list is based on similar control lists adopted by international arrangements like the Australia Group (AG), the Nuclear Suppliers Group (NSG), the Wassenaar Arrangement (WA) and the Missile Technology Control Regime (MTCR). Items not listed in Annex I may also be subject to export controls under certain conditions specified in the Regulation[40].

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[33] See http://rpa.defra.gov.uk/rpa/index.nsf/UIMenu/4CCBA8C61D82148080256F72003D614C?Opendocument (visited 18 June 2013).

[34] Article 173 of Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation).

[35] Europa online information. Viewed at: http://europa.eu.int/comm/external_relations/cfsp/sanctions/measures.htm (visited 16 June 2013).

[36] European Union Code of Conduct on Arms Exports, 5 June 1998. Viewed at: http://www.consilium.europa.eu/uedocs/cmsUpload/08675r2en8.pdf (visited 16 June 2013).

[37] Common Military List of the European Union, adopted by the Council on 27 February 2012. Viewed at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:085:0001:0036:EN:PDF.

[38] Council Regulation (EC) No. 428/2009, 5 May 2009, setting up a Community regime for the control of export, transfer, brokering, and transit of dual-use items. Viewed at: http://trade.ec.europa.eu/doclib/docs/2009/june/tradoc_143390.pdf.

[39] The EU list of controlled items is based on control lists adopted by international export control regimes – the Australia Group (AG), the Nuclear Suppliers Group (NSG), the Wassenaar Arrangement and the Missile Technology Control Regime (MTCR). See Europa website. Viewed at: http://ec.europa.eu/trade/import-and-export-rules/export-from-eu/dual-use-controls/ (visited 16 June 2013).

[40] Such ad-hoc controls may apply where there is a risk that an export to a specific end-user might be diverted for use in a weapon of mass destruction, in violation of an embargo or in certain other situations specified in Articles 4 and 8 of the Regulation. The export of the Dual – Use Items which do fall under the definition of Dual – Use items provided by Article 2.1 of the Council Regulation but are not listed in Annex 1 to the Council Regulation does not require the authorization with the following reservations:

"A. *An authorization shall be required for the export of Dual-Use Items not listed in Annex I if the exporter has been informed by the competent authorities of the Member State in which he is established that the items in*

Under the EU regime, controlled items may not leave the EU customs territory without an export authorization. There are global, national general and individual authorization schemes, depending on the type of item and its destination, but all of them are valid throughout the EU territory.

With the entry into force of Regulation No. 1232/2011[41], amending Regulation No. 428/2009, there are currently six EU General Export Authorizations (GEAs), covering respectively: exports to Australia, Canada, Japan, New Zealand, Norway, Switzerland (including Liechtenstein) and United States of America (EU001); export of certain dual-use items to certain destinations (EU002); export after repair/replacement (EU003); temporary export for exhibition or fair (EU004); telecommunications (EU005); and chemicals (EU006).

The specific conditions for exporting under the GEAs are specified in Annex II of Regulation No. 428/2009 as modified by Regulation No. 1232/2011. National general export authorisations (NGAs) may be issued by individual EU countries, provided that they do not conflict with existing EU GEAs and that they are granted in accordance with conditions set

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question are or may be intended, in their entirety or in part, for use in connection with the development, production, handling, operation, maintenance, storage, detection, identification or dissemination of chemical, biological or nuclear weapons or other nuclear explosive devices or the development, production, maintenance or storage of missiles capable of delivering such weapons (Article 4.1).

B. *An authorization shall also be required for the export of Dual-Use Items not listed in Annex I if the purchasing country or country of destination is subject to an arms embargo decided by a common position or joint action adopted by the Council or a decision of the Organization for Security and Cooperation in Europe (OSCE) or an arms embargo imposed by a binding resolution of the Security Council of the United Nations and if the exporter has been informed by the competent authorities of the Member State in which he is established that items in question are or may be intended, in their entirety or in part, for a military end-use* (Article 4.2).

C. *An authorization shall also be required for the export of Dual-Use Items not listed in Annex I if the exporter has been informed by the competent authorities of the Member State in which he is established that the items in question are or may be intended, in their entirety or in part, for use as parts or components of military items listed in the national military list that have been exported from the territory of that Member State without authorization or in violation of an authorization prescribed by national legislation of that Member State* (Article 4.3).

D. *If an exporter is aware that Dual-Use Items which he proposes to export, not listed in Annex I, are intended, in their entirety or in part, for any of the uses referred to in A-C above he must notify the competent authorities of the Member State in which he is established which will decide whether or not it is expedient to make the export concerned subject to authorization* (Article 4.4).

E. *A Member State may adopt or maintain national legislation imposing an authorization requirement on the export of Dual-Use items not listed in Annex I if the exporter has grounds for suspecting that those items are or may be intended, in their entirety or in part, for use in connection with the development, production, handling, operation, maintenance, storage, detection, identification or dissemination of chemical, biological or nuclear weapons or other nuclear explosive devices or the development, production, maintenance or storage of missiles capable of delivering such weapons* (Article 4.5).

F. *A Member State may prohibit or impose an authorization requirement on the export of Dual-use Items not listed in Annex I for reasons of public security or human rights considerations* (Article 8)".

[41] Council Regulation (EU) No. 1232/2011, 16 November 2011, amending Council Regulation (EC) No. 428/2009 setting up a Community regime for the control of export, transfer, brokering, and transit of dual-use items. Viewed at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:326:0026:0044:EN:PDF.

out in the Regulation[42]. Member States may grant global authorisation (i.e., granted to one exporter and covering one or more items to one or more countries/end users) or individual licenses (i.e., granted to one exporter and covering exports to one end use only). France, Germany, Greece, Italy, Sweden, the Netherlands, and the UK currently have these authorisations. In assessing applications for individual or global authorizations, individual States must follow the criteria specified in the Regulation[43].

In summary, for a detailed account of all export control measures in the EU, it would also be important to verify the individual regimes of each EU Member State. While the EU legislation provides a common framework in this regard, the precise scope of export controls for dual-use items and security reasons may vary from one Member State to the other.

C. Other export controls

Regulation (EEC) No. 2603/69 of the Council[44] enables the Commission, at the request of the EU Members States to make the export of a certain product subject to an export authorization or to quantitative restrictions to prevent or remedy a critical situation arising from a shortage of essential products and where "Community interests call for immediate intervention"[45].

Article 10 of Regulation (EEC) No. 2603/69, as amended by Regulation (EEC) No. 1934/82 of 12 July 1982, and Regulation (EEC) No. 3918/91 of 19 December 1991, enables under certain conditions Member States to maintain export restrictions on petroleum oil products, oils obtained from bituminous material and other varieties of oil. The purpose is to enable Member States to implement international commitments to which they may be bound setting up, in case of supply difficulties, a system for the allocation of oil products among the contracting parties.

Furthermore, Regulation (EEC) No. 2603/69 allows Member States to apply quantitative restrictions on exports or on grounds of public morality, public policy or public security, the protection of health and life of humans, animals and plants, national cultural treasures and the protection of industrial and commercial property[46].

EU Member States typically apply export bans on endangered species, narcotic drugs, hazardous waste, valuable antiques and works of art in accordance with the existing relevant international agreements. The United Kingdom, for instance, has a rather sophisticated system of export health certificates for animals (including birds), animal products and

[42] Council Regulation No. 428/2009, Article 9(4).
[43] Council Regulation No. 428/2009, Article 12.
[44] Regulation (EEC) No. 2603/69 of the Council, 20 December 1969, establishing common rules for exports (OJ L 324, 27 December 1969).
[45] Articles 6 to 8.
[46] Article 11.

germplasm[47]. Other national legislations concern exports of medicines and the chemicals used in their manufacture, and rough diamonds, in accordance with the Kimberley process[48].

Furthermore, Regulation (EC) No. 689/2008 of the European Parliament and of the Council, of 17 June 2008, as amended on 7 January 2010, concerning the export and import of dangerous chemicals, applies control procedures to the exportation of certain hazardous chemicals or products containing them. The products concerned may be either banned or subject to an authorization procedure. The purpose of the legislation is to implement the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.

Finally, under the Common agricultural policy, agricultural products and processed foods typically require an export license from the national authorities[49]. There are several purposes in this respect, among other

- Enforcing possible export restrictions and prohibitions, in case of an outbreak or disease,
- Ensuring that EU Regulations for export relief schemes are correctly implemented,
- Preventing the unauthorized diversion of VAT zero-rated goods to the EU market,
- Ensuring that requirements for safety and security purposes have been adhered to, and
- Ensuring the collection of export statistics.

D. Summary

In summary, the European Union and its Member States apply the three categories of export controls identified in the introduction to this report. Like in the United States, the emphasis is on the export controls for security reasons. The EU regime also quite comprehensively applies the existing MEAs and it enables Member States to apply additional restrictions for environmental, health or cultural purposes. Furthermore, the EU regulation concerning chemicals and products containing them is rather stringent.

The EU export controls for economic reasons are mainly found in the agricultural sector, in the context of the application of the Common Agricultural Policy, and for petroleum oil

[47] See http://rpa.defra.gov.uk/rpa/index.nsf/UIMenu/4CCBA8C61D82148080256F72003D614C?Opendocument, (visited 18 June 2013).

[48] "The Kimberley Process (KP) is a joint governments, industry and civil society initiative to stem the flow of conflict diamonds – rough diamonds used by rebel movements to finance wars against legitimate governments". See http://www.kimberleyprocess.com/ (visited 18 June 2013).

[49] This concerns in particular cereals, rice, sugar, olive oil and table olives, fresh and processed fruits and vegetables, wine, beef and veal, pigmeat, sheepmeat and goatmeat, poultry, milk and milk products, eggs and agricultural ethyl alcohol. See http://europa.eu/legislation_summaries/agriculture/agricultural_products_markets/l67001_en.htm (visited 18 June 2013).

products and their derivatives. The objectives are to ensure the availability in the EU of food and petroleum products and to control domestic prices. Export restrictions on other products for economic reasons are also authorized under Regulation (EEC) No. 2603/69, but none seems to have been adopted at this stage.

II.4 Measures adopted by India

A. Export Taxes and measures of equivalent effect

India applies taxes on the exportation of several food products, agricultural raw materials and industrial raw materials. This concerns in particular:

- tanned and untanned hides, skins, and leathers (except manufactures of leather) ranging from 10% to 25% of the f.o.b. value of the product since 2000[50];
- ferrous waste and scrap, and remelting scrap ingots of iron at 15% of the f.o.b. value since 2007;
- chromium ores and concentrates at Rs 3,000 per tonne since 2007[51];
- iron ores and concentrates (including iron ore fines) at 20% of the f.o.b. value since 2009. This tax was further raised to 30% as from 30 November 2011[52].
- shellac and lac-based products at Rs 2.30 per quintal, manganese ore at Rs 4 per tonne, chrome ore at Rs 6 per tonne, mica products at 3.5% of the f.o.b. value, and iron ore at Rs 1 per tonne, pursuant to the *2006 (Repealing and Amending) Act*[53].

Stated rationales for such measures include the promotion of downstream processing, the maintenance of an "adequate" domestic price, and the preservation of natural resources. Export taxes are sometimes introduced by India on a temporary basis to attain short-term goals: for instance, on 9 April 2010, the government of India introduced a Rs 2,500 per tonne levy on raw cotton and an ad valorem duty of 3% on exports of cotton waste, both expired after a six-months period[54] to ensure adequate domestic supply and to contain an increase in the price of cotton in the domestic market[55].

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[50] Customs Notification No. 133/2000, 17 October 2000.
[51] Korinek, J. and Jeonghoi, K., Export Restriction on Strategic Raw Materials and their Impact on Trade and Global Supply, in OECD, The Economic Impact of Export Restrictions on Raw Materials, 2010, OECD Publishing, at 113.
[52] European Commission, DG Trade, Ninth Report on Potentially Restrictive Measures, at 39. Viewed at: http://trade.ec.europa.eu/doclib/docs/2012/june/tradoc_149526.pdf (visited 16 June 2013). Iron ore pellets were on the contrary fully exempt from export duty as from 1 March 2011. See WTO Doc., Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, 20 October 2011, para. 131.
[53] Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, 20 October 2011, para. 132. Table III.16.
[54] Central Board of Excise and Customs (2010). The Second Schedule Export Tariff & Corresponding Exemption Notifications. Viewed at: http://www.cbec.gov.in/customs/cst-0910/cess.pdf (visited 16 June 2013).
[55] Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, 20 October 2011, para. 131.

Under the Export Policy Schedule (Foreign Trade Policy 2009-2014), India has applied minimum export prices (MEPs) on two commodities: Basmati rice and onions[56]. As to Basmati rice, the MEP was initially set by the Directorate General of Foreign Trade (DGFT) at US$ 1,100 per ton of the f.o.b. value; it was then reduced to US$ 900 per ton in September 2009[57] and finally removed on 4 July 2012[58]. With respect to non-processed onions (all varieties except Bangalore Rose onions and Krishnapuram onions), the regime in operation in the last years has swung between an export ban (from December 2010 to February 2011[59] and again from 9 September 2011 to 20 September 2011[60]) to export through state trading subject to various levels of MEPs, ranging from $600/ton on 18 February 2011 to US$170/ton on 31 March 2011 to $400/tonne as the latest notified revision[61]. On 19 July 2011, the government of India declared that 12,500 tons of Basmati rice may be exported duty free at a minimum export price of US$ 400[62]. Indian authorities declared that MEPs are aimed at ensuring adequate prices and availability of targeted commodities in the domestic market[63].

B. Export controls on dual-use items for security reasons

Traditionally, India has been reluctant to adopt the standards of industrial countries under the Multilateral Export Control Regimes regarding dual-use products, as it viewed these as denying technology to selected countries, particularly developing countries. However, since the 90's, as India became itself producer of dual use goods, it sought to participate to those multilateral arrangements, such as the Wassenaar Arrangement on transfers of conventional arms and dual-use goods and technologies. However India remains opposed to the Nuclear Non-Proliferation Treaty (NPT) in its present form. Nevertheless, it signed an historic Indo-US Civil Nuclear Agreement in 2008. The latter became possible after India agreed to align its Export Control System in accordance with the guidelines of the Missile Technology Control Regime (MTCR) and the Nuclear Supplier Group (NSG). India, however, is not yet a member of the existing multilateral arrangements[64], because, it seems, of difficulties related to enforcement mechanisms with regards to export control[65].

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[56] Department of Commerce (2010), "Schedule 2: Export Policy" (Foreign Trade Policy 2009-2014). Viewed at: http://pib.nic.in/archieve/foreigntradepolicy/foreigntradepolicy.pdf (visited 16 June 2013).

[57] Directorate General of Foreign Trade (2009), Notification No. 5/2009-2014, 7 September 2009.

[58] Notification No. 6 (RE-2012) /2009-2014. Viewed at: http://164.100.9.245/Exim/2000/NOT/NOT12/not0612.htm (visited 16 June 2013).

[59] Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, Table II.4.

[60] Directorate General of Foreign Trade (2011). Notification Nos. 73/2010 and 75/2010 respectively. Viewed at: http://dgft.gov.in/exim/2000/not/not10/indexn1011-ftp.htm (visited 16 June 2013).

[61] Directorate General of Foreign Trade (2011). Notification No. 70/ 2010. Viewed at: http://dgft.gov.in/exim/2000/not/not10/indexn1011-ftp.htm (visited 16 June 2013).

[62] Outside this quota an export duty of Rs 48000/ton is levied. Directorate General of Foreign Trade. (2011). Directorate General of Foreign Trade (2011). Notification 60/2010. Viewed at: http://dgft.gov.in/exim/2000/not/not10/not6010.htm (visited 17 June 2013).

[63] Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, 20 October 2011, para. 133.

[64] As indicated above, these are the Australia Group (AG), the Nuclear Suppliers Group (NSG), the Wassenaar Arrangement (WA) and the Missile Technology Control Regime (MTCR).

[65] See Nayan, Rajiv. 2011. Integrating India with the Global Export Controls System: Challenges Ahead, in: Strategic Analysis, Vol. 35, No. 3.

India's export control rules for security purposes are thus not as comprehensive as those of the EU or the US. The Indian export control authority is the DGFT under the Ministry of Commerce and Industry (DCI). The DGFT manages the SCOMET List (Special Chemicals, Organisms, Materials, Equipment, and Technologies), which is provided under the Foreign Trade (Development and Regulation) Act No. 22 of 1992 (FTDR) (as amended by the FTDR Amendment Act 2010).

The dual-use products included in the SCOMET list include the following categories (described in the DGFT's website):

- Category 0: Nuclear material, nuclear-related other materials, equipment and technology. (The licensing authority for this category is the Department of Atomic Energy)
- Category 1: Toxic chemical agents and other chemicals
- Category 2: Micro-organisms, toxins
- Category 3: Material, Materials Processing Equipment, and related technologies
- Category 4: Nuclear-related other equipment, assemblies and components; test and production equipment; and related technology, not controlled under Category 0
- Category 5: Aerospace systems, equipment including production and test equipment, related technology and specially designed components and accessories thereof.
- Category 6: (Reserved)
- Category 7: Electronics, computers, and information technology including information security[66].

An Inter-Ministerial Working Group (IMWG) in the DGFT, chaired by the Additional Director General of Foreign Trade, processes applications for licence for export of SCOMET items on merits, following guidelines laid down in the "Handbook of Procedure Vol. 1". India does not seem to maintain an official list of prohibited end-users or sanctioned countries, but applicants for a license must provide an end-user statement, in order to assess credentials. Once IMWG approves the case, it issues a permission letter to the exporter for obtaining export authorization from the concerned Zonal/Regional office of the DGFT[67].

C. Export prohibitions

India applies export bans on different commodities to ensure domestic supply. Such prohibitions are notified on an annual basis and they are usually in place for a specific

[66] See http://dgft.gov.in/exim/2000/scomet/scomet2011.pdf (visited 17 June 2013).
[67] *Id*.

period, although they are frequently and rapidly extended, removed or "transformed" thus jeopardizing the predictability of the system[68].

Examples of such practice are offered by some recent cases:

- on 5 March 2012, the Indian government announced the imposition of an export ban on raw cotton, and then lifted it on 12 March 2012[69], after a similar measure was adopted in 2010;
- exports of edible oils were initially prohibited in 2008, and thereafter the measure was extended first until October 2010, then until 30 September 2011 and again until 30 September 2012[70] on domestic supply shortages grounds;
- the export ban of shavings of shed antlers of Chital and Samhar (including manufactured articles) was removed from 8 to 30 September 2009[71], and lifted again since October 2009[72];
- export of pulses have been prohibited since 2006, initially for a period of six months and then periodically extended until 2013[73];
- an export ban imposed on non-basmati rice since 2007 was repeatedly amended for the export of specified quotas until the government lifted the ban on 9 September 2011[74];
- the export ban on wheat in place as from October 2007, and then repeatedly amended to allow for the export of certain quotas, was removed on 9 September 2011[75].

In addition, India maintains export bans of selected products to the Democratic People's Republic of Korea, Iran, and Iraq in pursuance of UN resolutions as well as on rough diamonds to the Bolivarian Republic of Venezuela under the Kimberly Process[76].

D. Export quotas and licensing

Indian authorities notify export quotas on an annual basis with the indication of the relative implementation period. The quota is determined on the basis of domestic demand and

[68] Trade Policy Review – Report by the Secretariat, India, WT/TPR/S/249/Rev. 1, 20 October 2011, para. 137.
[69] Notification No. 106 (RE-2010)/2009-14. Viewed at: http://164.100.9.245/Exim/2000/NOT/NOT11/not10610.htm (visited 16 June 2013).
[70] Directorate General of Foreign Trade (2011). Notification No. 77/2010. Viewed at: http://dgft.gov.in/exim/2000/not/indexn-ftp1011.htm (visited 16 June 2013).
[71] Directorate General of Foreign Trade Notification No. 06/2009-2014, 8 September 2009.
[72] European Commission, DG Trade, Ninth Report, *supra* n. 52, at 16.
[73] Directorate General of Foreign Trade Notifications Nos. 35/2009-2014, 30 March 2010; and No. 35(RE 2010)/2009-2014, 23 March 2011.
[74] Directorate General of Foreign Trade (2011). Notification No. 71/2010. Viewed at: http://dgft.gov.in/exim/2000/not/indexn-ftp1011.htm (visited 16 June 2013).
[75] Directorate General of Foreign Trade (2011). Notification No. 72/2010. Viewed at: http://dgft.gov.in/exim/2000/not/indexn-ftp1011.htm (visited 16 June 2013).
[76] Trade Policy Review – Report by the Secretariat, India, WTO Doc. WT/TPR/S/249/Rev.1, 20 October 2011, Part 3, para. 138.

anticipated production. Like Indian export bans, India has frequently lowered and raised the indicated ceilings causing disturbances in the markets, and often the quota determination follows the lifting of a ban.

Quotas are applied as follows:

- Quota on exports of branded consumer packs of oil of up to 5 kg, which are subject to an export quota of 10,000 tons since 2008[77];
- Quota on exports of wheat flour, which are subject to a 65,000 tons quota since the lifting of the 2007 ban, on 3 July 2009, with the ceiling initially set to last until 31 March 2010, but then prolonged twice up to 31 March 2011, and finally 31 March 2012.
- On 2 August 2011 and up to 30 September 2011, an export cap on cotton with the exception of cotton waste of 550,000 bales of cotton was imposed during the cotton season. This threshold was raised to 650,000 bales on 9 June 2011[78].
- Moreover, under the Export Policy Schedule (Foreign Trade Policy 2009-2014), India maintains export quotas for products exported through state trading enterprises, including onions, sugar, iron ores and concentrates and iron ore pellets, manganese ores, chrome ores, various forms of low silica, and crude oil[79]. Indian authorities have stated that state trading of exports aims at ensuring better marketing and prices of domestic products, as well as to prevent fluctuations in domestic price and to conserve natural resources[80].

Under the current Export Policy, 167 tariff lines at the HS eight-digit level were reported to be subject to an export license administered by the Directorate General for Foreign Trade (DGFT) in 2011[81], excluding products of special chemicals, organisms, materials, equipment, and technologies.

Export licensing is inter alia used as an instrument to ensure domestic supply of certain products and to implement export quotas. A sensitive product in this respect is, for example, cotton: exports of cotton, excluding cotton yarn, were subject to an export licence from 21 May 2010 to 30 September 2010[82]; cotton yarn was subject to a restriction from December 2010 to March 2011[83]. In addition, exports of cotton and cotton yarn required an export authorization registration certificate (EARCs). EARCs were issued only when the domestic

[77] Directorate General of Foreign Trade, Notifications Nos. 04/2009-2014, 4 September 2009; and 09(RE-2010)/2009-2014, 1 November 2010.
[78] Directorate General of Foreign Trade. (2011). Notification No. 12/2010. Viewed at: http://dgft.gov.in/exim/2000/not/not11/not7810.htm (visited 17 June 2013)
[79] Trade Policy Review – Report by the Secretariat, India, WTO Doc. WT/TPR/S/249/Rev.1, 20 October 2011, Part 3, Table III.17.
[80] *Id.*, para. 142.
[81] *Id.*, para. 139.
[82] Directorate General of Foreign Trade, Notifications Nos. 44/2009-14, 21 May 2010; and 58/2009-14, 17 August 2010.
[83] Directorate General of Foreign Trade, Notifications Nos. 14(RE-2010)/2009-2014, 22 December 2010; and 40(RE-2010)/2009-14, 31 March 2011

supply of cotton was ensured. For instance, no EARCs were granted from 19 April 2010 to 21 May 2010[84]. This decision to suspend exports was aimed at lowering domestic prices and ensuring a stock of 5 million bales of cotton for the domestic garment and handloom sectors up to the start of the next cotton season (in October)[85]. India eventually removed the licensing scheme for cotton exports in place since May on 17 August 2010[86]. Exporters of cotton, cotton waste, and cotton yarn must now register their export contracts with the Directorate General of Foreign Trade (DGFT). The new regulation does not specify the discretion DGFT may have in the acceptance of export contracts. The liberalization came into force on 1 November 2010[87].

E. Other export controls

India maintains export restrictions or controls, like most other countries, on endangered species, wildlife, narcotic drugs, hazardous waste, antiquities, and life plants. It also maintains export restrictions on human skeleton, human blood and products derived from it, cattle and soil and sand. These restrictions are ether in accordance with the existing relevant international agreements or autonomous in order to protect the environment, exhaustible natural resources or public morality[88].

F. Summary

In summary, India, like the other countries, applies the three categories of export controls identified in the introduction to this report. Unlike the EU and the United States, the emphasis is more on the measures taken for economic reasons than the others. India indeed maintains an impressive array of measures on key commodities and raw materials to sustain its industrial policy and the promotion of diversified downstream industries. Key products subject to export restrictions in this regard include ferrous waste and scrap, certain hides, skins, and leathers, chromium ores and cotton.

India is also sensitive to prices in food products and maintains price stabilisation mechanisms either through export restrictions or minimum prices on wheat, rice and onions.

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[84] Trade Policy Review – Report by the Secretariat, India, WTO Doc. WT/TPR/S/249/Rev.1, 20 October 2011, Part 3, 20 October 2011, para. 140.

[85] Trade Policy Review – Report by the Secretariat, India, WTO Doc. WT/TPR/S/249/Rev.1, 20 October 2011, Part 3, para. 140.

[86] Directorate General of Foreign Trade. (2011). Notification 12/2010. Available at http://dgft.gov.in/exim/2000/not/not10/not1210.htm.

[87] Global Trade Alert online information "India: Removal of licensing scheme for cotton exports". Viewed at: http://www.globaltradealert.org/measure/india-removal-licensing-scheme-cotton-exports (visited 17 June 2013).

[88] See for instance India's Environment Protection Act; Wild Life Act; Indian Trade and Merchandise Marks Act; Arms Act; Ancient Monument Preservation Act, 1904; Indian Coffee Act, 1942; Tea Act, 1953; Dangerous Drugs (Import, Export and Transshipment Rules), 1957; Antiquities and Art Treasures Act, 1972; Wild Life Protection Act.

Finally, India's export controls on dual-use goods are not as comprehensives as those of its developed trade partners, raising their concerns in this regard.

II.5 Measures adopted by Brazil

A. Export taxes and measures of equivalent effect

All exporters must register with the Brazilian Chamber of Foreign Trade (CAMEX), which is an agency of the Ministry of Development, Industry and Foreign Trade. *Law No. 9,716* of 26 November 1998, and *Decree No. 4,543* of 26 December 2002 entitles the CAMEX, to apply a 30% tax rate on exports. This tax can be decreased or increased (to up to 150%), considering the f.o.b. value or the price of the goods in the international market at the time of exportation[89].

The export tax applies, in principle, to all exports. However, generally the tax remains zero-rated with the exception of three product categories[90]: leather and skins[91], arms and ammunition[92], and cigars[93]. Levies on leather and skins were raised from 7% to 9% in 2006 and are charged on all exports of these products, regardless of the country of destination. In the other two cases (arms and ammunition and cigars), taxes amount to 150% and are levied only on exports to certain markets in the western hemisphere. Where taxes are applied to all countries, their stated purpose is to ensure domestic market supply and to compensate for tariff escalation; where they are targeted at specific markets, the stated purpose is to control the regularity of the commercial flow[94].

Furthermore, *Law No. 9,716* of 26 November 1998, enables the discriminatory application of the export tax according to the country of destination of the following products: coffee, sugar, alcohol, and related products.

Brazil has not instituted minimum exports prices, except as a base to calculate export taxes. *Ministerial Act No. 36/2007* of the Secretariat for Foreign Trade (SECEX) provides for the

[89] This price may not be lower than the cost of production, as defined by the law, augmented by taxes and other contributions and a mark-up of 15% on the sum of the costs and taxes. Decree-Law No. 1,578 of 1977 and Provisional Measure No. 2,158-35 of 2001.
[90] In the past, Brazil applied a 30% tax on the exportation of cashew nuts with shell, a 150% tax on the exportation of tobacco and its substitutes destined to Uruguay and Paraguay, and a 150% tax on the exportation of paper for cigars and cylinders for cigar filters when directed to South and Central America and the Caribbean. All such measures were revoked in 2005. Trade Policy Review – Report by the Secretariat, Brazil, WTO Doc. WT/TPR/S/212/Rev.1, 11 May 2009, Part 3, Table III.5.
[91] CAMEX Resolution No. 42, 19 December 2006.
[92] CAMEX Resolution No. 17, 6 June 2001.
[93] Decree No. 2,876, 12 December 1998.
[94] Trade Policy Review – Report by the Secretariat, Brazil, WTO Doc., WT/TPR/S/212/Rev. 1, para. 186.

possibility to set an export price in certain cases, but this price must be based on prevailing international market conditions.

B. Export controls on dual-use items for security reasons

Brazil is a party to the main multilateral non-proliferation export control regimes : the Chemical Weapons Convention, the Biological Weapons Convention, the Nuclear Suppliers Group and the Missile Technology Control Regime.

Brazil's export controls on the exports of dual-use items is laid down in the *Law No. 9,112* of 10 October 1995, which provides for similar control lists of dual use goods as those of these multilateral arrangements. The lists are updated regularly and published in the Federal Government Gazette (Diario Oficial da Uniao).

Exports of products in the lists are subject to licensing. There are two licensing bodies: the Defense Ministry, which is is in charge of arms and military goods and the Inter-ministerial Commission for the Export Control of Sensitive Goods (CIBES), headed by the Ministry of Science and Technology (MCT), which deals with the other goods[95]. CIBES is also responsible for the preparation of the implementing regulations to *Law No. 9,112* setting forth the criteria, proceedings, and control mechanisms for the exportation of sensitive commodities and their related services. Since 2003, the Department of Nuclear Affairs and Sensitive Assets (DNASA) at the MCT was assigned with the task to issue export licenses to most exports of controlled dual use goods. CIBES is also expected to regularly update the control lists on nuclear, chemical, biological, and missile-related technologies in accordance with the multilateral arrangements to which Brazil is a party[96].

Brazil has implemented rather complex enforcement mechanisms, despite the inherent difficulties due to its large (and porous) borders with neighbouring countries and some illegal practices at customs. Brazil's export control regime is thus generally recognised as being adequate[97].

C. Other export controls

Under *Normative Instruction No. 77* of 7 December 2005 issued by the Brazilian Institute of Environment and Natural Renewable Resources (IBAMA), Brazil maintains restrictions in

[95] CIBES was created by Law No. 9,112 as amended by Decree No. 4,214 of 30 April 2002. MCTI online information. Viewed at: http://www.mct.gov.br/index.php/content/view/304026/Controle_de_Bens_Sensiveis.html (visited 17 June 2013).

[96] MCTI online information "Listas de controle". Viewed at: http://www.mct.gov.br/index.php/content/view/330710/LISTAS_DE_CONTROLE.html (visited 17 June 2013).

[97] See Zaborski, V., Report: The Brazilian Export Control System, *The Non-Proliferation Review*, 2013. http://cns.miis.edu/npr/pdfs/102zabor.pdf

the form of export licensing requirements and prohibitions on various types of woods and wood products on conservation and environmental protection grounds and in pursuance of CITES[98]. The Instruction establishes the procedures for exporting wood products and distinguishes among three different categories of exports (free, limited and forbidden) depending on the wood species and the type of by-products. For example, exports of certain wood (pine, imbuia, and virola) requires prior authorization from the IBAMA; exports of mahogany, Brazil wood, and cedar are subjected to permission by CITES, which is issued by the IBAMA. Exports of jacaranda from Bahia (HS 4407.29.90) is generally suspended unless certain special conditions are met in order to contrast extinction[99].

Brazil also maintains an export licensing system to administer the "Hilton quota", which subjects Brazilian exports of certain bovine meat and poultry to a 10,000 tonne allocation in the EU[100]. Producers must be accredited by the Ministry of Agriculture (MAPA) and accepted by the EU as safe exporters of bovine meat/poultry. Licences are issued by the Department of Foreign Trade (DECEX)[101].

Furthermore, like the other countries, Brazil requires prior authorization for exports of a wide range of products, generally on safety, health, security or environmental grounds. The products concerned include live animals and plants, fresh fruits, dairy products, cigarettes and alcoholic beverages of Brazilian origin, some oils and resins, wood (as indicated above), chemical products and medicines.

Other products as well, are subject to licensing procedures, such as uranium, several metals, some vehicles and aircraft, beans, coffee and potatoes. Special export procedure also applies to goods which are scarce on the internal market[102].

Various agencies are responsible for issuing the required export licences depending on the type of product. They include for instance the Ministry of Agriculture (goods of animal origin and vegetables), and the Ministry of Health (medicine). Some products require authorization by more than one agency[103].

D. Summary

In summary, Brazil, like the other countries, applies the three categories of export controls identified in the introduction to this report.

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[98] Normative Instruction No. 77 of 7 December 2005. Viewed at: www.mp.rs.gov.br/.../instrucao_normativaibam77.doc (visited 17 June 2013).
[99] Trade Policy Review – Report by the Secretariat, Brazil, WTO Doc., WT/TPR/S/212/Rev. 1, para. 191.
[100] Ministerial Act SECEX N.36/2007, Annex N.
[101] Trade Policy Review – Report by the Secretariat, Brazil, WTO Doc., WT/TPR/S/212/Rev. 1, para. 191.
[102] Ernst and Young Terco, Doing Business in Brazil, 2011. Viewed at: http://www.ey.com/Publication/vwLUAssets/Doing_business_in_Brazil_2011/$FILE/Doing%20Business%20in%20Brazil%202011.pdf (visited 19 June 2013)
[103] Trade Policy Review – Report by the Secretariat, Brazil, WTO Doc., WT/TPR/S/212/Rev. 1, para., para. 194.

Unlike India, its export control regime of dual use items appears to be more comprehensive and in line with existing international standards.

Like all countries, Brazil maintains export restrictions for health, environmental or moral reasons, although there does not seem to be a consolidated policy in this respect. The reasons for the restrictions on lumber are ambiguous, as they can be both for environmental preservation purposes and economic objectives.

Like India, Brazil maintains export restrictive measures for economic purposes, in particular export taxes on leather and skins. The Brazilian Chamber of Foreign Trade (CAMEX) is empowered to apply export taxes on any other product of interest in order to impact on prices or avoid scarcity in the Brazilian market. In the same line, more for economic reasons than for conservation purposes, export restrictions and licensing mechanisms are applied to certain products, in particular uranium, metals, vehicles and aircraft, beans, coffee and potatoes.

II.6 Measures adopted by China

A. Export taxes and measures of equivalent effect

China maintains export duties on a large number of products, in the form of statutory rates and interim rates (applied for a specific period). Interim export duty rates tend to be lower than statutory export tax rates[104]. All export duties are applied on a MFN basis[105].

Following accession to the WTO, China undertook a general obligation to eliminate export duties, except for a list of 84 HS-8 digit products which it consented to bind and which are listed in Annex 6 of its Accession Protocol. The list mainly includes primary minerals and metals, such as lead, zinc, tungsten, tin, niobium, and tantalum and vanadium ores and concentrates; crude antimony; yellow phosphorus; various forms of ferro-alloys, benzene, various forms of ferro-silicon and ferro-manganese, as well as ferro-chromium; unrefined copper, copper anodes and cathodes, alloyed copper and copper waste and scrap, unwrought not alloyed nickel, and unwrought alloyed nickel. The bound export duty rate ranges from 20 per cent to 40 per cent.

China's export duties are imposed pursuant to a basic framework legislation and an implementing regulation (*China's Customs Law*, the *Regulations on Import and Export Duties*). It is transposed in the annual *Tariff Implementation Schedule*, which contains the list of commodities subject to export taxes, which the government reviews annually and issues in January.

[104] Trade Policy Review – Report by the Secretariat, China, WTO Doc., WT/TPR/S/264/Rev.1, 20 July 2012, Part 3, para. 140.
[105] WTO Doc., WT/L/432, Annex 6.

Based on the 2012 Tariff Implementation Scheme, 99 HS-8 tariff lines are reportedly subject to statutory export duties, revealing a steadily upward trend[106]. Moreover, interim export taxes are also applied to 237 tariff lines that are not subject to statutory export taxes. In particular, China maintains export duties on numerous minerals and metals, as well as minerals fuels, including coal, crude oil, chemical fertilizers and iron alloy. The stated rationale is to protect environment and public health as well as to conserve natural resources. However, DG Trade of the EU Commission observed that in many cases China's export duties fit with its industrial policies and are used as developmental instruments to foster and accelerate the ongoing process of its transition towards massive industrialization[107]. Most export duties involve ad valorem rates ranging from 0 to 40%. The average export tax rate applied on dutiable items was around 14.5% in 2011[108].

China's scope of application of export taxes is variable. In 2011, China eliminated export duties on 17 tariff lines, including clays, aluminium ores, chemicals, ferro-alloys, anhydrous aluminium fluoride, NdFeB alloy quick-hardening permanent magnet, small and medium-sized profile steel, alumina and brown fused alumina made of alumina. It also reduced interim export duty rates on 21 tariff lines including chemicals and fertilizers[109]. The 2013 Tariff Implementation Scheme now prescribes the elimination of the export duties on China export tariffs for copper cathode (Cu≥99.9999%), silicon metal, and EMM[110].

On the other hand, in 2011, China raised export taxes on certain rare-earth minerals, including neodymium and lanthanum chloride (from 15% to 25%), and ferroalloy containing more than 10% rare earth elements (from 20% to 25%)[111]. Moreover, special export duties newly apply to 8 tariff lines, including seasonal duties for fertilizers and their raw materials. The objective is to avoid short-supply in the domestic market during high season[112].

B. Export controls on dual-use items for security reasons

Like the other countries, China maintains a rather sophisticated export control regime for military and dual- use products. It is however less clear cut than the one of Western

[106] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, Part 3, paras. 137-140 and Corr, C. F., Ma, P. W, Scoles, S., and Yu, T., "China releases 2012 Tariff Implementation Scheme". Viewed at: http://www.lexology.com/1748/author/Samuel_Scoles/.

[107] European Commission, DG Trade, Ninth Report, *supra* n. 53, at 9-10. Viewed at: http://trade.ec.europa.eu/doclib/docs/2012/june/tradoc_149526.pdf (visited 16 June 2013).

[108] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, 20 July 2012, Part 3, paras. 141.

[109] WTO document G/SCM/N/155/CHN (G/SCM/N/186/CHN), 21 October 2011.

[110] Shangai Metals Markets "2013 Tariff Implementation Plan". Viewed at: http://ensmm.blogspot.it/2012/12/news-feature-2013-tariff-implementation.html.

[111] Report to the Trade Policy Review Body from the Director-General on Trade-Related Developments, WTO Doc., WT/TPR/OV/W5/Rev.1, 7 September 2011.

[112] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, 20 July 2012, Part 3, para. 141.

countries. Currently, however, China seems committed to abide by international standards and to strengthen its overall export control policy.

China is a member of the Nuclear Supplier Group (NSG), but not of the Missile Technology Control Regimes (MTCR), Australia Group, and the Wassenaar Arrangement. Several of its partners consider that it maintains some controversial exports, although China regularly pledges its full commitment to international security and non-proliferation and has had consultations to apply to these multilateral regimes.

Pursuant to the *Foreign Trade Law*, the Government may restrict or prohibit imports or exports for reasons including "national security" or when required by international agreements. It may also, in the interest of "international peace and security" take any "necessary" measure with respect to import or export of goods or technology relating to fissionable materials and arms, ammunition, and implements for war. The Law also provides for the publication of lists of goods or technologies restricted for import or export[113].

In 2008 China published its *Catalogue of Export Prohibited and Restricted technologies*. Products subject to export controls include most of the products included in the Wassenaar lists: specialized nuclear equipment and technology, conventional weapons and technology, and missile system, components and technology, dual-use items and technologies as well as encryption products. The Catalogue, however, does not seem to clarify the type of export control measures applied to each listed good or the authorized end-uses.

In its Protocol of Accession to the WTO, China notified the WTO that it would require certification of several information security products, such as website recovery, firewalls, routers, smartcards, data backup and recovery, operating systems, databases, anti-spam, intrusion detection, network vulnerability and audit products.

The *Measures for The Administration of Import and Export Licenses for Dual-Use Goods and Technologies* grant to the Chinese Ministry of Commerce (MOFCOM) full competence for the administration of the licensing requirements pertaining to dual use goods and technologies. The *Commercial Encryption Regulations* empower the State Encryption Management Administration (SEMA) to manage the use and export of encryption in China.

Exporters may apply for general export license or individual export licenses. There are two categories of general export licenses regarding dual use products and encryption technologies:

[113] Articles 16, 17 and 18 of the Foreign Trade Law. There are several regulations and ministerial Decrees related to export controls and dual use products: Regulations on Export Control of Nuclear Dual Dual-Use Items and Related Technologies; Regulations on Management of Chemicals Subject to Supervision and Control; Regulations on Export Control of of Dual-Use Biological Agents and Related Equipment and Technologies; Regulations on Export Control of Missiles and Missile-related Items and Technologies; Measures on the Administration of Export Registration for Sensitive Items and Technologies and Measures for the Administration on Import and Export License for Dual-use Items and Technologies.

- The first category enables the registered exporters to export one or several dual-use items and technologies to one or several end-users in one or several countries, within the valid period.
- The second category enables the registered exporters to export a dual-use item and technology to a fixed end-user in one country within the valid period. The validity period of either category of general license is 3 years.

Registered exporters which intend to apply for the general license of either category must meet all of the following criteria:

- Be legal foreign trader of PRC;
- Have established an Internal Control Plan (ICP);
- Be engaged in export business of dual-use items and technologies for at least 2 years;
- For the first Category of general license, at least 40 licenses should be applied annually during the past 2 years; for the second Category, at least 30 licenses for the same item should be applied annually during the past 2 years;
- Have received no penalty on criminal or administrative violation during the past 3 years; and
- Hold fixed sales channel and end-user.

Registered exporters must apply with the local MOFCOM offices by submitting an application form for general license, an explanation letter regarding IPC and other relevant documents. The local MOFCOM offices must then deliver the application documents to central MOFCOM for approval.

As the application criteria are not easily met, most dual-use item exports cannot qualify to apply for the general license. In other words, most Chinese private companies do not have an ICP and many foreign invested enterprises that have an ICP cannot reach as high as 40 license applications annually. This means in practice that the exports of dual-use goods is mainly controlled through individual licenses, on a case-by-case basis.

Obtaining an individual license entails a process of verification by MOFCOM or, depending on the product concerned, other relevant agencies[114], of supporting documents for each transaction, such as duplicates of the contract or agreement, technical specifications of the items, end-users, documents of guarantee assuring no third-party transfers and no unintended usages. If the application is approved, the license is issued by the Quota and License Bureau of MOFCOM and the exporter can clear the export with customs.

C. Other export controls

[114] The Chinese Atomic Energy Authority, the Commission on Science, Technology, and Industry for National Defense or National Chemical Weapons Convention Implementation Office.

a) Export prohibitions

China maintains general export prohibitions on a total of 45 items at the HS 8-digit level listed on the export prohibition catalogue, which took effect on 1 January 2009[115]. Products listed in the catalogue mainly include materials relating to State secrets, precious and rare animals and plants (such as horn-cores, bezoars, musk, and wood charcoal), mineral products, chemicals and fertilizers[116]. China considers that such prohibitions are in line with international agreements and fulfil public policy goals regarding environmental and human health protection, and preservation of natural resources[117].

b) Export quotas and licensing

China maintains several export quotas, which are imposed pursuant to:

- a basic framework legislation (the *Foreign Trade Law*),
- an implementing regulation (the *Regulation on Import and Export Administration*[118],
- the *Export Quota Administration Measures*, and *Export Quota Bidding Measures*), and
- specific annual measures that set the ceiling for specific products. The most recent one is the *Catalogue of Commodities subject to Export Licence Administration 2012*[119].

The Chinese Ministry of Commerce (MOFCOM) is responsible for the centralized administration of all export quotas for China[120]: it adjusts and publishes the catalogue of goods subject to export quotas, and determines and announces the annual ceilings for each product concerned by October 31 of the previous year. The annual quotas are allocated twice a year, in December of the preceding year and in July (first and second batch). Enterprises that are approved to export are issued a certificate of quota that entitles them to apply for an export licence.

The allocation of quotas is done either directly or through a quota bidding system. In the former case, MOFCOM determines, and if necessary reviews, the total ceiling for quotas[121]

[115] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, Part 3, para. 146.
[116] WTO Docs.WT/ACC/CHN/49, 1 October 2001; Trade Policy Review – Report by the Secretariat, China, WT/TPR/S/199/Rev.1, 12 August 2008, Part 3, para. 120; Trade Policy Review – Report by the Secretariat, China, WT/TPR/S/230/Rev. 1, 20 July 2012, para. 82.
[117] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, Part 3, para. 146.
[118] Recently, moreover, China published its *Revised Regulation on the Administration of Certificates of Import and Export Licensing*. MOFCOM Decree No. 1/2012, 4 February 2012, in WTO Doc. WT/TPR/OV/W/6.
[119] See MOFCOM Announcement No. 98/2011, dated 30 December 2011, effective as from 1 January 2012.
[120] Article 19 of the *Foreign Trade Law*.
[121] According to Article 10 of the *Export Quotas Administration Measures*, the determination of MOFCOM should be based on the weighting of multiple factors and, in particular, the safety of the national economy and the protection of limited domestic resources, together with national industrial objectives and policies, as well as the demands on the international and domestic markets.

and receives the applications for export quotas submitted by both national and foreign-invested enterprises. It then distributes the quotas directly usually differentiating the quotas directed to Chinese enterprises and foreign-invested companies, based on both general and sector-specific eligibility criteria.

In the case of export quotas allocated through a bidding process, MOFCOM determines the total quantity of export quotas to be allocated through bidding and supervises the work of the Export Quota Bidding Committee[122]. The Committee administers the quota-bidding application process[123]. An enterprise must be awarded a portion of the export quota as part of the bidding process in order to export[124]. Any interested enterprise must submit a bidding price[125] and bidding quantity[126] to China's Bidding Office and must apply for an export licence.[127] China's Bidding Office then determines the winning bidders based on the highest bid prices until the bid quantities fall within the total quantity of quota available[128]. An enterprise that is allocated a quota through bidding must present a certificate of quota issued by China's Bidding Office when applying for an export licence.[129] Exporting enterprises must present the export licence to China's Customs authorities for declaration and examination.[130]

According to the *Catalogue of Commodities subject to Export Licence Administration 2012*, the following items are subject to export quotas: wheat, corn, rice, wheat flour, rice flour, cotton, sawn timber, live cattle, live pigs, live chicken, coal, coke, crude oil, refined oil, rare-earth (including rare earth ferroalloy), antimony and antimony products, tungsten and tungsten products, zinc ore, tin and tin products, silver, indium and indium products, molybdenum, phosphate ores[131]. Mat rush and mat rush products, silicon carbide, talcum lump (powder), magnesia, alumina, licorice and licorice products are subject to quota bidding[132].

[122] Articles 3 and 7 of the *Export Quota Bidding Measures.*

[123] See *Export Quota Bidding Measures*, Article 8 and *Export Quota Bidding Implementation Rules*, Article 3.

[124] Under Article 11 of the *Export Quota Bidding Measures,* both national and foreign-invested enterprises must be: (i) qualified for engaging in export; (ii) registered with the business administration authority; (iii) Members of the relevant chamber of commerce for import and export (in case of foreign-invested enterprises, Members of the China Association of Enterprises with Foreign Investment); and (iv) have exported or supplied for export volumes of the relevant commodity that "reach a certain level". Additional criteria are also established for each round of product-specific quota bidding.

[125] The bidding price represents the amount per metric tonne that a bidding enterprise is willing to pay for the right to export. *Export Quota Bidding Measures*, Article 20; *Export Quota Bidding Implementation Rules*, Article 14.

[126] The bidding quantity is the amount of the relevant material the enterprise seeks to export. *Id.*

[127] *Export Quota Bidding Measures*, Article 14; *Export Quota Bidding Implementation Rules*, Articles 20 and 21.

[128] *Export Quota Bidding Measures*, Article 19; *Export Quota Bidding Implementation Rules*, Article 19.

[129] *Export Quota Bidding Measures*, Articles 32-33.

[130] *Regulation on Import and Export Administration*, Article 41.

[131] MOFCOM Announcement No. 98/2011 (30 December 2011), and WTO Doc. WT/TPR/OV/W/6, 28 June 2012.

[132] MOFCOM Announcement No. 98/2011 (30 December 2011).

In general, for each of the product categories subject to export quotas, the yearly ceiling has been steadily decreasing, most often in terms of absolute value and, in any case, as a percentage of total Chinese production[133]. This is true also for rare earths, despite the fact that the 2012 quota is 2,7 per cent higher than 2011[134], since China has started to include "ferroalloys" in the list of products subject to the quota. Some estimates indicate that by including this new category of products in the quota, China in fact reduced the 2011 rare earth export quota by as much as 30%, while passing the message that the 2011 quota was not reduced when compared to that of 2010[135]. Chinese global export quotas apply to more than 180 tariff lines[136]. The authorities maintain that these measures are aimed at conserving natural resources and protecting the environment; however, the WTO Secretariat has questioned their economic effectiveness in relation to such goals[137].

China also maintains export quotas for products exported through state trading enterprises, namely antimony ore and antimony products, silver and tungsten ore and tungsten products, rice, maize, cotton, coal, crude oil and processed oil, as well as tobacco. Chinese authorities consider that, concerning agricultural commodities, State trading responds to the need to ensure a stable domestic supply, avoid excessive price volatility and safeguard food safety. As far as industrial raw materials are concerned, the stated objective is to protect exhaustible and non-recyclable natural resources and the environment[138]. Exports subject to state trading must always be exported by STEs. Chinese authorities maintain that export prices charged by STEs are determined by the enterprises themselves, based on, inter alia, domestic prices plus transportation and storage costs, interest rates, inspection fees, and international market prices[139].

Finally, in addition to licensing requirements required to administer China's export quotas regime, China maintains export licenses on a wide range of products[140], mainly to fulfil international agreements and MEAs[141]. These mechanisms are also administered by MOFCOM. The *Catalogue of Commodities subject to Export Licence Administration 2012* lists in this respect live cattle, live pigs, live chicken, fresh chilled beef, frozen beef, fresh chilled pork, frozen pork, fresh chilled chicken, frozen chicken, ozone depleting substances,

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[133] Korinek, J. and Jeonghoi, K., *supra* n. 51, at 123 *et seq.*; WTO Doc., WT/TPR/OV/W/6 and WT/TPR/OV/13.
[134] Indeed, rare earths related measures have been intensifying in the past years as a result of the "Rare Earths Industry Development Plan in 2009-2015" drafted by the country's Ministry of Industry and Information Technology. European Commission, DG Trade, Fifth Report on Potentially Restrictive Measures, at 52. Viewed at: http://trade.ec.europa.eu/doclib/docs/2009/november/tradoc_145270.pdf (visited 19 June 2013).
of the DG Trade, *supra* n. 413, at 52.
[135] See European Commission, DG Trade, Ninth Report, *supra* n. 52, at 119.
[136] Trade Policy Review – Report by the Secretariat, China, WTO Doc. WT/TPR/S/264/Rev.1, Part 3, para. 148. China also applies destination-specific quotas on live cattle, live swine, and fowl destined to Hong Kong and Macao SARs.
[137] Trade Policy Review – Report by the Secretariat, China, WTO Doc., WT/TPR/S/230/Rev.1, 5 July 2010, Box III.1, at 44.
[138] Trade Policy Review – Report by the Secretariat, China, WT/TPR/S/264/Rev.1, Part 3 , para. 151.
[139] *Id.*, para. 153.
[140] According to WTO, in 2011 246 tariff lines at the HS 8-digit level were subject to export licensing in addition to the lines subject to global export quotas. WTO Doc. WT/TPR/S/264/Rev.1, Part 3, para. 150.
[141] *Id.*

paraffin, zinc and zinc-based alloys, certain metals and metal products, platinum (for processing trade), automobiles (including complete knock-down kits) and their chassis, motorcycles (including all-terrain vehicles) and their engines and frames, natural sand (including standard sand), molybdenum products, citric acid, vitamin C, penicillin industrial salt and disodium sulphate[142].

D. Summary

Like all countries, China maintains the three categories of export controls identified in the introduction to this report.

The salient feature of China's export control regime is that it clearly contributes to its overall industrial policy. The flexibility offered by the laws an implementing regulations to the government to change the list of products subject to export taxes, or export quotas and to allocate these quotas is clearly intended to enable adaptation to China's industrial needs and global prices.

China also applies export restrictions in accordance with existing international agreements for environmental purposes. However, admittedly, China uses the ambiguity of several of these measures which can both protect the country against the exhaustion of its natural resources, and serve industrial policy objectives. Untangling these objectives is the task of international trade law, where applicable (see Chapter IV below).

Finally, China, like the other countries, maintains a comprehensive system of export controls for dual use products and is making efforts to join all existing multilateral arrangements in this regard.

III. Analysis of the efficiencies of export control measures applied by some of the main trading partners

III.1 Theoretical elements on the economic impact of export control measures

A. The standard economic theory on the effects of export restrictions

[142] MOFCOM Announcement No. 98/2011 (30 December 2011). See http://www.fmprc.gov.cn/eng/wjb/zzjg/jks/fksflfg/t141341.htm (visited 19 June 2013).

The general effects of export control measures are common to all types of export restrictions. They ultimately induce a contraction in the volume of exports of the product affected by the restriction, thereby diverting domestic production from the international market to the domestic market. Accordingly, the domestic price of the products decreases, while the reduced supply in the world market may generate, depending on the export shares of the country imposing the restriction, turbulences on the world supply patterns and, consequently, volatility in world prices.

Among the different types of export restrictive measures, the effects of export price measures such as export taxes are more directly and precisely measurable compared to quantitative measures such as export quotas. Therefore, economic literature has generally focused on the theoretical expectations related to the impact of export taxes, which serve as a basis to understand the standard economic theory on the effects of export restrictions[143]. On a general level, an export tax raises the cost of exported products (so-called price effect) and, accordingly, induces a reduction of the volume of exports of the taxed products (so-called trade effect). The reduced volume of exports, in turn, generates a parallel increase in the domestic market of the supply diverted from the international market (so-called supply-side effect), which ultimately leads to a diminution of domestic price, creating a wedge between domestic prices and the price charged to foreign consumers. However, depending on whether the country imposing the restriction is a "large" producer or a "small" producer, the welfare implications associated with an export tax may differ significantly[144].

The standard economic theory on the effects of an export tax can be described as follows: the implementation of an export tax induces an increase in the commodity export prices. Finding that exporting the taxed product is more expensive, exporters in the domestic country prefer to offer their supply on local markets (untaxed) rather than on the international market (taxed). They will thus decrease the volume of their exports and divert their supply in the domestic market. If the country is a small producer, unable to affect foreign prices, the increase in the domestic market supply will reduce the domestic price of the taxed goods below the world price up until the point when the price differential between

[143] Piermartini, R., The Role of Export Taxes in the Field of Primary Commodities, WTO Discussion Paper No. 4, 2004; Anderson, K., Food Price Volatility: What Role for Trade Measures?, University of Adelaide, Australian National University, and CEPR, 2012; Bouet, A., and Laborde Debucquet, D., The Economics of Export Taxes in the Context of Food Security, in OECD, The Economic Impact of Export Restrictions on Raw Materials, 2010, OECD Publishing, at 59-79; Giordani, P., Rocha, N. and Ruta, M., Food Prices and the Multiplier Effect of Export Policy, ERSD, WTO Staff Paper, 2012. The bias towards export taxes is also due to the recent proliferation of such measures, which were reported to be the fastest growing component among the newly potentially restrictive measures adopted within the framework of the economic and financial crisis by WTO in 2011 (WTO Doc. WT/TPR/OV/14, at 17) and ranked fifth among the new restrictive trade measures in 2012. See Evenett, S. J., Débacle: The 11th GTA Report on Protectionism, CEPR. Viewed at http://www.globaltradealert.org/11th_GTA_report (Visited 19 June 2013). Indeed, more than half countries with independent trade policies apply export taxes (including top world exporters). Solleder, O., Panel Export Taxes (PET) Dataset: New Data on Export Tax Rates, Graduate Institute Working Paper No. 7/2013. Viewed at: http://graduateinstitute.ch/webdav/site/international_economics/shared/international_economics/publications/working%20papers/2013/HEIDWP07-2013.pdf (Visited 19 June 2013).

[144] From an economic standpoint, a "large" producing country is a price setter in the sense that it is assumed to export a significant share of world exports such that if these exports are reduced, world supply significantly declines and, as a result, the world price increases.

the latter, which remains unchanged, and the domestic price equals the amount of the tax. Accordingly, the domestic production will adjust to the level below the pre-tax equilibrium. When a country is a large producer, the reduction of the supply of the exported good will raise the world price of the taxed product. The reduced exports to the rest of the world will be then diverted onto the domestic market, where the domestic price of the taxed product will fall, creating a differential between the latter and the world price up until the domestic suppliers of the latter receive the same price for their product at home and abroad (i.e. until the price differential equal the tax) and producing a parallel decline in output in the home country[145].

In the case of quantitative restrictions on exports, the main difference is that the trade effect and the supply-side effect are not triggered by a price effect. The reduction in the volume of exports of the restricted products, in fact, is not conditioned upon the imposition of a price on exports but upon the restrictive impact produced by the introduction of a ceiling on the quantity of exports of a certain commodity or the stringency of the conditions prior to exportation. Of course, the tougher the conditions or the ceiling with respect to the level of traditional exports (with the highest incidence being represented by the export ban), the higher the trade-effect and the consequent supply-side effect[146]. From a strict economic standpoint, it is always possible to "convert" export restrictions into their equivalent export taxes, i.e. to determine the level of export tax that would have produced the same volume effect as the quantitative restriction[147]. However, determining the right size of quotas is never easy, and even harder is an assessment of the effectiveness of licensing requirements[148]. Moreover, economic theory suggests that there is a "ban-equivalent" for every type of export restrictions, i.e. excessively high level of export taxes or MEPs or low level of quotas, as well as extraordinarily tight conditions posed upon exportation would produce the same economic effects attributable to an export ban[149].

In sum, the standard economic theory on the economic implications of an export tax predicts the following effects:

1. a substitution effect on domestic consumption: the reduction in the domestic price produced by the diversion of exports to the domestic market induces an increase in the domestic consumption of the taxed good;
2. a substitution effect on domestic production: the downward pressure on domestic price produced by the increase in domestic supply leads to a decrease of domestic production of the commodity;

[145] For a more detailed explanation see Piermartini, R., *supra* n. 143, at 3 *et seq.*

[146] Another main difference is that export quotas require considerably more efforts to be administered: the government has in fact to allocate them to exporters while minimizing rend-seeking behaviours and corruption. Sharma, R., Food Export Restrictions: Review of the 2007-2010 Experience and Considerations for Disciplining Restrictive Measures, FAO Commodity and Trade Policy Research Working Paper No. 32/2011, at 12.

[147] Mitra, S. and Josling, T., Agricultural Export Restrictions: Welfare Implications and Trade Disciplines, IPC Position Paper, Agricultural and Rural Development Policy Series, 2009, at 24 *et seq.*

[148] Sharma, R., *supra* n. 146, at 12.

[149] Piermartini, *supra* n.143, at 8.

3. an impact on world price: when the exporting country is a large producer, the reduction of volume exports increases the word price.

Finally, it must be noted that these results correspond to the predictions economists associate to export restrictions in a partial equilibrium model, i.e. a simple theoretical framework that focuses on the sector where the policy is implemented leaving aside real income effects and the interdependence with the rest of the economy[150].

B. The welfare implications of export restrictions: efficiency and terms-of-trade effects

The implementation of an export restriction produces two distinct effects: an efficiency effect and a terms-of-trade effect.

In the exporting country, the substitution effects described above produce so-called efficiency losses due to distortions occurring on both production and consumption: domestic producers produce and sell less at a lower price, while consumers (or downstream industries) benefit from the decrease in the domestic price and consume too much. Moreover, if a country is a large producer, the upward influence on the world price of the taxed commodity produces a terms-of-trade gain[151], thus increasing government revenues[152]. If a country is a small producer, however, there is no terms-of-trade gain, since variations in the volume of export will not affect the world price. Hence, an export tax may improve national welfare in a large producing country. In that case, the negative efficiency effects are outweighed by the positive terms-of-trade effect. In the case of a small producing country, however, the cost of implementing an export tax unambiguously exceeds its benefits.

In the importing country, the implementation of an export restriction abroad would produce losses both in terms of efficiency and terms-of-trade, whether or not the country imposing the measure can affect foreign prices. As a result of the export restrictions, in fact, foreign producers are led to produce locally what would have been more efficiently produced in the exporting country while foreign consumers consume less than what they would optimally need. Finally, there cannot be any terms-of-trade gain, regardless of the size of the production in the exporting country imposing the export tax. In this respect, the export tax is a "beggar-thy-neighbour" policy[153] as it unambiguously reduces the national welfare of the importing countries.

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[150] Bouet, A., and Laborde Debucquet, D., *supra* n. 143, at 61.

[151] The terms-of trade indicates the ratio between the price of a country's exports over the price of its imports. An increase in terms-of-trade is associated to an increase in a country's welfare, since it implies an improvement in terms of real income. Krugman, P., International Economics: Theory and Policy, Sixth Edition, 2003, at 101 *et seq.*

[152] Solleder, O., Trade Effects of Export Taxes, *supra* n. 143, at 9.

[153] A beggar thy-neighbour policy is defined as a policy that benefits the home country only because it worsens economic conditions abroad. Krugman, P., *supra* n. 151, at 544.

Export restrictions induce internal redistributive effects within both the exporting and the importing countries. In the case of a large producing exporting country, consumers benefit from lower domestic prices, while the producers are worse-off because of price decline in the home country and consequent decline in domestic production; the government eats up part of the exporters' revenues. In the importing country, the redistribution of income occurs from consumers, penalized by increasing prices, to producers, expanding production due to price upsurge. In the case of a small producing exporting country, there will still be a redistribution from producers to consumers but no redistributive impact would be borne within the importing country[154].

On a worldwide level, an export restriction will unambiguously reduce the overall net welfare: since the eventual terms-of-trade gain produced in a large producing exporting country would be offset by the terms-of-trade loss occurring in the importing countries, the efficiency losses arising from production and consumption distortions in both countries produce a net-negative effect on global welfare[155]. On a global level, in fact, efficient domestic producers are discouraged in the exporting countries whereas foreign producers are led to produce locally what would have been more efficiently produced in the exporting country. On parallel, too much of the taxed good is consumed in the exporting country while consumers in the foreign country consume too little as a result of the substitution of cheaper imports with inefficient domestically-produced commodities.

In light of these dynamics, economists have theorized that a large producing country can find an optimum level of export taxes, i.e. a level which would ensure an improvement of its net-national welfare by realizing a terms-of-trade gain higher than the efficiency losses (so-called welfare optimizing tax level)[156]. However, the estimation of the optimum export tax (and of its quantitative "equivalent") requires a sound general equilibrium model (i.e., a theoretical framework taking into account real income effects and interdependence relations with the rest of the economy[157]), calibrated on a case-by-case basis for each sector in each specific country on the basis of appropriate estimations of consumption, production, and trade elasticities[158]. Indeed, history provides with frequent examples of erroneous calculation based on misinterpretation of market situations leading to implementation of the wrong policy[159].

[154] See Piermartini, R., *supra* n. 143, at 4 *et seq.*

[155] It must be noted that this analysis is static, in the sense that it does not take into account that such measures may be adopted to respond to market failures, to address negative externalities and/or to fulfil essential public policy objectives. *Id.*, at 4.

[156] Bouet, A., and Laborde Debucquet, D., *supra* n. 143, at 60.

[157] *Id.*, at 62.

[158] *Id.*, at 66.

[159] See, for instance, the analysis provided by Roberta Piermartini on the wrongful estimations leading the Philippines government to apply a detrimental export tax on copra and coconut oil in the 1970's. Piermartini, *supra* n. 143, at 16.

C. Challenges to standard economic theory on export restrictions: the practical effect

Standard economic theory provides rather straightforward arguments against export restrictions in terms of net-overall welfare. Moreover, States adopt certain measures with clear expectations of policy outcomes, which are counter effected by a chain of events that the standard models do not account for.

For instance, in the theoretical case of a large producing country, export restrictions are expected to increase national welfare of the exporting country applying the restriction through an improvement of its terms of trade at the expenses of importing countries. However, although a beggar-thy-neighbour export restrictions may immediately benefit consumers of the imposing country, the long-run implications of an export restriction may differ significantly from the short-run effects, as foreign producers attracted by higher world prices are likely to increase their supply[160]. In other worlds, although the price may remain higher than the pre-restriction level, "*it is possible that export restrictions could be beneficial in the short-run while these benefits will disappear in the long-run for the country that implements this measure thanks to a downward adjustment of terms of trade through an increase of production in other countries*"[161]. Moreover, demand and supply elasticities may also change over time, thereby eroding and ultimately annulling in the long-run the terms-of-trade gains realized in the short-run[162].

Another example is the proliferation of export restrictions applied on agricultural products within the context of the food crisis of 2007-8[163]. The underlying rationale provided by States was the need to ensure adequate supply in the domestic markets while at the same time "insulating" their population from the general price spikes for food security purposes. However, such dynamic has actually proven detrimental as progressive recourse to export restrictions alimented a vicious cycle: governments instituted export restrictions due to increase in prices, leading to a decrease in the world supply and exacerbating price rises, thus soliciting further export restrictions (i.e. the multiplier effect)[164]. Furthermore, these policies have encountered non-cooperative trade policy response of importing countries trying to counteract export taxes through, for example, the reduction of import tariffs (so-called domino effect)[165]. Hence a progressively more substantial body of economic literature has found evidence that export restrictions actually contributed to the increase in the level and volatility of food prices[166].

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[160] Mitra, S. and Josling, T., *supra* n. 5, at 147 *et seq.*
[161] Bouet, A., and Laborde Debucquet, D., *supra* n. 143, at 64.
[162] *Id.*, at 66.
[163] For a general overview, see Sharma, R., *supra* n. 146, at 12.
[164] Giordani, P., Rocha, N. and Ruta, M., *supra* n. 143.
[165] Sollender, O., Trade Effects of Export Taxes, *supra* n. 143, at 25 and Bouet and Laborde, *supra* n. 143, at 64 *et seq.*
[166] Anderson, K., 2012, Food Price Volatility: What Role for Trade Measures?, University of Adelaide, Australian National University and CEPR, 2012. Viewed at: http://cid.kdi.re.kr/upload/20120921-2_1.pdf (Visited 20 June 2013) ; FAO *et al.,* Price Volatility in Food and Agricultural Markets: Policy Responses, 2011. Viewed at: http://www.oecd.org/tad/agricultural-trade/48152638.pdf (Visited 20 June 2013).

Another illustrative example of how export restrictions may not practically produce the predicted effects generally occurs when export restrictions aim at stabilizing intermediate consumption prices so as to encourage downstream processing[167]. The underlying economic argument for export restrictions in this perspective is the so-called infant industry protection, i.e. the belief that a temporary protection or subsidization of a newly established domestic processing industry may serve the purpose of giving it the time sufficient to become competitive internationally and potentially develop a comparative advantage[168]. According to this argument, the exporting country would thus have the chance to diversify its export base moving up along the value chain through the development of a strong industrial sector. Within such framework, export restrictions would provide an indirect subsidy to downstream producers by lowering domestic price of inputs compared to their world price thus incentivizing them to increase production. However, in practice, it does not work that way. Indeed, the expansion of the volume of production of the processed products induced by the policy would require a massive utilization of domestic below-the-world-price inputs, thereby impairing the desired substitution effect and calling for additional imports[169].

Another practical unwanted effect of these export restrictions arises when they are applied on raw materials – especially mining products – for environmental reasons, to compensate for the environmental externalities linked to the extractive industry. There are numerous cases where the achievement of the conservation objective and/or the minimization of public health and environmental impacts is undermined by the high-speed industrialization occurring in emerging economies[170]. Therefore, if an export restriction combines the environmental rationale with the objective to promote higher value-added activities, even if indirectly, it will likely not adequately address the environmental objective. Hence, export restrictions may not be the most appropriate tool to achieve environment-related goals in comparison with alternative options such as straight conservation policies and regulation of domestic production[171].

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[167] Korinek, J. and Jeonghoi, K., *supra* n. 51, at 110 *et seq.*; Fliess, B., and Mard, T., Taking Stocks of Measures Restricting the Export of Raw Materials: Analysis of the OECD Inventory Data, OECD Publishing 2012, at 15-16.

[168] For a thorough discussion of the economic rationales of the infant industry arguments see, among others, Krugman, *supra* n. 151, at 256 *et seq*. For an analysis of the limits of such argument see Piermartini, *supra* n. 143, at 10.

[169] Korinek J. and Jeonghoi, K., *supra* n. 51, at 110 *et seq.*; Bouet, A., and Laborde Debucquet, D., *supra* n. 143, at 64.

[170] Korinek J. and Jeonghoi, K., *supra* n. 51, at 110 *et seq* ..

[171] *Id.*, at 119; WTO Doc., Trade Policy Review – Report by the Secretariat, China, WT/TPR/S/230/Rev.1, 5 July 2010, Box III.1, page 44; Ruta, M., and Venables, A., International Trade in Natural Resources: Practice and Policy, Oxcarre Research Paper No. 84/2012. at 16. Viewed at: http://www.oxcarre.ox.ac.uk/images/stories/papers/ResearchPapers/oxcarrerp201284.pdf (Visited 20 June 2013).

III.2 An assessment of the economic impacts of export restrictions applied by Vietnam's main partners

As briefly mentioned above, export restrictions seldom fulfil the expectations of standard economic theory. Furthermore, they may disregard their stated objective. This is why it is important to analyze the empirical evidence resulting from the monitoring of trade and price flows in countries affected by export restrictions.

Economists however have encountered major difficulties in pursuing this task: firstly, the effect of export restrictions with respect to price increases and volatility is difficult to isolate, especially under general equilibrium models, from a more general upward pressure on the prices of commodities. Such price increases are mainly driven by growing demand from emerging countries causing the longest and most comprehensive commodity boom ever experienced so far[172]. For instance, fuel prices jumped at 234% during 2003-8, while mining products and fuels rose 178% and 124% respectively[173]. Secondly, multiple forms of export restrictions are frequently applied simultaneously or opaquely follow each other within a limited time-period. Hence, it is very challenging to disentangle the effects associated with specific measures on specific products and often results may be corrupted by such confounding effect[174].

These elements, combined with the lack of detailed and comprehensive data, are mostly responsible for the fact that the precise magnitude of trade effects (in terms of trade flows and prices) of export restrictions has not been firmly established. The research to date consists in overviews and case studies, focused on a specific group of products, or conducted at a very high level of aggregation[175].

Considering the above, the following sections will report on the ascertained trade effects of export restrictions applied by Vietnam's five main partners, on the basis of the estimations and empirical evidence available to date. Given that the main studies conducted so far have addressed product groups rather than the effect of singular measures[176], the information will be provided with respect to three different sub-categories of products: dual-use products, agricultural products, and industrial raw materials. This covers the product groups mostly targeted by the export restrictions of the above-mentioned countries.

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[172] Radetzski, M., A Handbook of Primary Commodities in the Global Economy, (Cambridge University Press: 2008), at 66 *et seq;* Peeling, G. *et al.,* Increasing Demand For and Restricted Supply of Raw Materials, in OECD, *The Economic Impact of Export Restrictions on Raw Materials*, OECD Publishing 2010, at 156.

[173] Ruta, M. and Venables, A., *supra* n. 171, at 8. The authors explained that a substantial body of literature has identified the low price elasticity of these sectors as a background reason, thereby suggesting that the impact of export restrictions would in this respect add to a more comprehensive and general trend.

[174] Gomes-Sabaini, J. C., Role of Export Taxes, in Tanzi, V., Fiscal Policy in Open Developing Economies, International Monetary Fund, Washington, 1998, at 46.

[175] Sollender, O., *supra* n. 143, at 3.

[176] There are only few country-specific cases analysis, such as India's export restrictions on cotton and on rice, and China's export restrictions on a cluster of critical minerals and metals.

A. The impact of export controls on dual-use items

There are few recent studies that have attempted to assess the economic impact of strategic trade controls on trade flows and enterprises' competitiveness. They encountered major methodological and empirical difficulties due essentially to serious data limitations[177].

Some studies, however, have managed to overcome these difficulties by focusing on a narrow set of controlled items: for instance, Richard Cupitt has undertaken an analysis on the economic impact of U.S. strategic trade controls on selected chemicals based on the Chemical Weapon Convention and the Biological and Toxin Weapon Convention on trade flows with nine countries (China, Cuba, India, Indonesia, Iran, Libya, Mexico, Pakistan, and Sri Lanka). He found that such measures do not significantly reduce normal trade flows[178].

The same author has also conducted a study limited to nuclear-related materials, which not only does not find any empirical evidence that trade controls adversely affect trade flows, but suggests that there is a moderately positive correlation between the adoption of trade controls and robustness of trade in nuclear materials[179]. This finding relies on the assumption that the adoption of export controls increases the probability of successfully importing dual-use and related technology items as trade controls can provide assurances to the exporting country[180].

In line with these results, a study of Matt Fuhrmann concerning licensed trade in dual-use items between the United States and 128 countries between 1991 and 2011 concludes that

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[177] The main problems arise out of data availability issues and the difficulty inherent in establishing a correspondence between trade statistics in general merchandise and trade classification schemes for dual-use items. See Jones, S., and Karreth J., Assessing the Economic Impact of Adopting Strategic Trade Controls, U.S. Department of State, at 12. Viewed at: http://www.state.gov/documents/organization/156673.pdf and bibliography thereby cited (Visited 20 June 2013). The impacts of strategic trade control measures have been subject to greater scrutiny as defense and dual-use items are high technology products whose transfer has proven critical to economic growth and development. Hoekman *et al*., Transfer of Technology to Developing Countries: Unilateral and Multilateral Options, University of Colorado, IBS Working Paper No. 3/2004. Viewed at: http://www.colorado.edu/ibs/pubs/pec/pec2004-0003.pdf (Visited 20 June 2013). The issue is all the more sensitive given that developing countries have started to denounce sophisticated strategic trade control systems as hidden non-tariff barriers used by industrialized countries to continue North's domination of high-tech markets with higher value-added. Turpen, E., Achieving Nonproliferation Goals: From Denial to Technology Governance, The Stanley Foundation Policy Analysis Brief, June 2009. Viewed at: http://fmwg.dynamicwebware.com/SiteFiles/Turpen_Technology_Governance_June09.pdf (Visited 20 June 2013).

[178] Cupitt, R., Control Regimes for Chemical and Biological Materials: Towards a Safer and More Prosperous World, Paper Presented at the 648th Wilton Park Conference, UK, September 28-30, 2011, cited in Jones, S., and Karreth J., *supra* n. 177, at 13.

[179] Cupitt, R., UNSCR 1540 and Trade: Nuclear Nonproliferation Strategic Trade Controls and Trade in Nuclear Related Materials, Prepared for the Annual Meeting of the International Studies Association, New York, 17 February 2009, cited in Jones, S., and Karreth J., *supra* n. 177, at 14. However, the author notes that the very limited focus of the research impedes to consider the results of the study as generally applicable, in that countries exporting and importing nuclear materials are exceptional cases.

[180] Cupitt *et al*., The Determinants of Nonproliferation Export Controls: A Membership-Fee Explanation, The Non Proliferation Review, 2001. Viewed at: http://cns.miis.edu/npr/pdfs/82cupitt.pdf (Visited 20 June 2013).

strategic trade controls do not have a significant impact on trade flows *per se*. Other factors, such as the importing countries' reliability, seem more to affect U.S. export choices[181].

Adding to the above, Jones and Karreth examined the development of trade flows in advanced technology products[182] between the U.S., the EU[183] and 14 partner countries[184]. Both the U.S. and the EU have implemented comprehensive strategic trade control systems and the study examined their exports and imports before and after they introduced strategic trade controls legislation during the period 1997-2008. The authors found that "*strategic trade controls legislation does not exerts a negative, statistically significant influence on the volume of exports or imports*"[185]. Indeed trade of the sample countries with the U.S. and the EU did not decrease on average after the adoption of the export control legislation.

Interestingly, the authors also found a positive, statistically relevant correlation between the introduction of relevant legislation in the partner countries and the volume of exports from the EU directed to such countries. They identified as a possible reason the higher number of licenses granted to EU based exporters due to the introduction of strategic trade controls in the partner countries[186].

In conclusion, in the area of export controls related to dual use products and security reasons, the usually counterproductive effects of export controls seem to be counterbalanced by the increased ease of trade for the exporting countries, considering the nature of the products concerned, generated by the adoption of safer trading flows.

B. The impact of export restrictions on foodstuffs and agricultural raw materials

In the agricultural sector, the substantial increase of prices of food commodities in 2007-8 and 2009-10 caused great concerns among net-food importing and exporting countries. Food security came to the forefront of the international trade debate while economists progressively made clear that export restrictions played an important role in increasing food

[181] Fuhrmann, M., Exporting Mass Destruction? The Determinants of Dual-Use Trade, Journal of Peace Research 45, No. 5 (September 2008), at 633-652.
[182] These products are defined for the purposes of the study as goods exhibiting "a substantial number of characteristics that qualify dual-use goods; i.e. they should be those types of goods that are potentially required to pass the export licensing process". To this end, the authors used the categorization of "advanced technology products" elaborated by the United States Census Bureau to extract high-technology trade data. Jones, S., and Karreth J., *supra* n. 177, at 20-1.
[183] The authors consider the EU-15 for the newest Members had not adjusted their strategic control systems to EU standards before they joined. *Id.*, at 22.
[184] These selected countries (Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, India, Israel, Kyrgyzstan, Moldova, Pakistan, Singapore, Ukraine, and Uzbekistan) were those for which data was available for at least one year before and after the year in which the strategic trade controls legislation was implemented. All other countries introduced relevant legislation too early or too late within the adopted data frame. *Id.*, at 24.
[185] *Id.,* at 30.
[186] *Id.*, at 31.

price volatility and contributed to the worsening of the food crisis[187]. Several studies sought to detect and quantify the impact of export restrictions on agricultural products, both *ex ante* and *ex post*[188].

Some authors used model-based analysis to estimate *ex ante* the effects of export restrictions on specific key products. For instance, Thompson and Tallard used the OECD-FAO Aglink-Cosimo global model of world food and agricultural markets to simulate the effects in 2013 of a food price spike similar to the 2007/08 for wheat and rice[189]. They selected the ten largest producers/exporters or consumers of wheat and rice (Argentina, Brazil, Chile, China, India, Indonesia, Russia, South Africa, Ukraine and Vietnam). Their study found that a given surge of 70% in the world prices of wheat and rice is amplified to 134% for rice and 98% for wheat should the 10 countries apply specific trade measures such as export prices, counteracted with tariff reductions by the importing countries. The domestic prices in the 10 countries would rise by 18% for rice and 12% for wheat. In the absence of trade restrictions, the prices would rise by 36% and 20% only[190].

Another *ex ante* analysis is provided by Bouet and Debucquet. The authors applied a general equilibrium model to estimate the long-run impact of export taxes on world prices of wheat should the world price increase by 10%, following a demand shock in the sector[191]. Based on six different scenarios of possible responses of wheat net-exporting and importing countries, the authors found that a combination of export taxes and tariff measures would seriously exacerbate the increase of world prices. This would strongly reduce the effectiveness of such measures in achieving the expected insulation effect of domestic prices: indeed, their model estimates that if only export taxes are implemented in wheat exporting countries, the rates of the export tax required to keep the domestic price of wheat constant in their market is less than 6%. However, the required change becomes 45% if importing countries reduce their tariffs in wheat in the attempt to counteract the export taxes imposed[192].

Furthermore, several economic studies were conducted on an *ex post* basis with the aim to find the causes of the food crises and understand the role of export restrictions in this respect. Some of the authors adopted a more general focus, using comprehensive data sets based on multi-country and multi-product settings, while others focused on specific case studies.

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[187] See, for all, Karapinar, B., and Haberli, C., Food Crisis and the WTO (Cambridge University Press: 2010).

[188] For the sake of conciseness, we will not be able to report on all the economic studies emerged in this respect: rather, we will focus on some most recent analysis which distinguishes themselves either for their comprehensiveness (and thus their general applicability) or for their clearly defined scope which allows to better understand the effect of export restrictions on particular commodities or product groups.

[189] Thompson, W. and G. Tallard, Potential market effects of selected policy options in emerging economies to address future commodity price surges, OECD Food, Agriculture and Fisheries Working Papers, No. 35/2010, OECD Publishing, OECD, Paris.

[190] The authors consider that most of this amplification is due to export restrictions, since the scope of tariff reductions is fairly limited. *Id.*, at 22 *et seq*.

[191] Bouet, A. et Laborde Deboucquet, D. *supra* n. 143, at 67 *et seq.*

[192] *Id.*, at 70, Table 4.

With respect to the general type of analysis, Giordani, Rocha and Ruta examined the impact of exporting countries' export restrictions on global market prices during the period 2008-10. They used a comprehensive data set comprising monthly information on trade measures across 125 countries and 29 food products[193]. The authors found evidence of a strong link between initial export restrictions on a product and the subsequent export restrictions on that product in large exporting countries. In other words, they confirmed the multiplier effect, according to which export restrictions on a product due to an increase of the world price entail further increases of world prices, encouraging exporting governments to implement additional restrictions aiming at shielding domestic consumers from the price increases. The study concluded that such phenomenon significantly contributed to higher volatility of international prices on food in the period 2008-10. The empirical analysis showed that for each 1% increase in the share of food trade covered by export restrictions the world price of food has on average increased by 1.1% in the considered period[194].

As to the *ex post* analysis on specific products, Martin and Anderson used a simplified global market equilibrium model to quantify the aggregate contribution of export restrictions on the increase of international prices of wheat and rice during the periods 1973-4 and 2006-8[195]. According to their results, for the 2006-8 period, export restrictions were responsible for 45% of the increase in the world price for rice and for almost 30% of the increase of price of wheat. In 2008 almost half of the 90% increase in rice prices was ultimately attributable to trade policy[196].

Other economic studies analyzed the effects of export restrictions applied on specific products by single countries. In particular, two key commodities – rice and cotton – have received particular attention.

Regarding rice, Headey adapted Timmer's model of cereal price formation[197] to provide with rough estimates of the impact of export restrictions on rice world prices[198]. Using very inelastic demand and supply values for rice (-0.15), he found that export restrictions implemented by four key countries (China, Egypt, India, and Vietnam) contributed to a 61% rise in the world price for rice in 2007-08 compared to 2006/07, with respective

[193] Giordani, P. Rocha, N. and Ruta, M., *supra* n. 143, at 3.
[194] *Id.,* at 25.
[195] Martin, W., and Anderson, K., Export Restrictions and Price Insulation during Commodity Price Booms, World Bank Policy Research Working Paper No. 5645/2011.
[196] *Id.*, at 12.
[197] Timmer, C.P., Did Speculation Affect World Rise Prices? ESA Working Paper No. 09/2007, Agricultural Development Economics Division, FAO.
[198] Headey, D. D., Rethinking the Global Food Crisis: The Role of Trade Shocks, IFPRI Discussion Paper 958/2010. Viewed at: www.ifpri.org/sites/default/files/publications/ifpridp00958.pdf (Visited 20 June 2013). The author formulated these estimates within a context of a more comprehensive analysis, mostly focused on revisiting the monthly commodity price changes during 2007-8 for rice, wheat and maize and parallel monthly trade volumes in the largest grain markets (the United States for maize and wheat, and Thailand, Vietnam and India for rice) in order to assess the economic importance of trade events (i.e. short-run trade shocks). The authors found evidence that trade events contributed significantly to the overshooting of grain prices. See also Sharma, R., supra n. 146, at 18.

contributions of 23% by India, 20% by Vietnam, 10% by Egypt, and 8% by China[199]. Moreover, surges in demand led to a 65% price rise with contributions of 27% by Bangladesh, 22% by energy exporters (Gulf countries, Nigeria), and 16% by the Philippines. The sum of the contribution arising from these two shocks amounts to 125%, a value consistent the price range observed in 2007-08. Another study conducted by Mitra and Josling, based on a more sophisticated econometric methodology[200], estimated the effect on world prices of an export ban India imposed on rice[201]. They compared the 2006 price and the post-ban 2008 level price. They found that if the ban had been maintained, world prices would have increased from $433.7 per ton to $1300,71 per ton, i.e. three times the world price[202].

Finally, regarding cotton, India's mix of export restrictions has been under particular scrutiny, considering India is the second largest exporter of cotton and has implemented successive export restrictions causing great uncertainties in the cotton market since 2009. Based on reported price data, India's export restrictions on cotton have unambiguously pushed world prices up while lowering the internal prices, with a differential price between the world price and the internal prices reaching up to 16% after the announcement of the bans, and being on average around 5%[203]. Evidence however also shows that India's uncertain export regime has reduced its presence in the world market of cotton and resulted in additional exports by the United States, mostly due to the reorientation of Chinese cotton imports from Indian to U.S. suppliers[204]. The analysis also gives account of the pressures exercised on the Indian government by the textile industry for keeping up with export restrictions[205].

In conclusion, all economic analysis, whether empiric or based on projections, general or product-base, shows that, in the agriculture sector, export restrictions amplify global price increases. This exacerbates the concerns related to food security which most of the measures seek to alleviate. In the non-food sector, while price differentials between higher international prices and lower domestic prices may temporarily benefit a domestic downstream industry (in the sector of cotton for instance), this is mitigated by shifts from international demand to a domestic one, entailing an upward pressure on domestic prices, and a subsequent lower impact of the exporting country on global prices. In all cases, the anticipated effects of export restrictions may be counter effected by the reduction in importing countries of customs duties on the imports of the products concerned. This then leads to an exponential upward spiral of export taxes to keep isolating domestic producers

[199] *Id.*, at 15.
[200] *Id.*, at 18
[201] Mitra and Josling, *supra* n. 147, at 11 *et seq.*
[202] *Id.*, at 12.
[203] National Cotton Council, Influence of India's Export Restrictions on the World Cotton Market, 2010. Viewed at: http://www.cotton.org/issues/2010/upload/NCC-Report_India-and-World-Cotton-Market_October-26-2010_FINAL-3.pdf (Visited 20 June 2013), at 6.
[204] *Id.*, at 7.
[205] *Id.*, at 9.

from the price increases. In the meantime this generates important trade distortions and negative effects on overall welfare.

C. The impact of export restrictions applied on extractive sectors within expanding national industrial policies

In the extractive industry, export restrictions have raised substantial trade concerns in the last few years. The economic and financial crisis, and the fact that emerging economies such as India, China and Brazil adopted offensive industrial strategies obviously played a role in this context[206]. Recent cases were brought before the WTO dispute settlement body against export restrictions applied by China on a wide range of minerals and metals, rare earths, molybdenum and tungsten (see below Chapter IV).

In this context, economic research was produced to analyze the impact of export restrictions on industrial raw materials and to detect any product-specific effects of export restrictions on price and trade flows.

A first study addressed export taxes. The author, Sollender, developed an empirical model based on actual tax rates at product level. She estimated the elasticities of trade in a multi-country and multiproduct setting while at the same time she sought to disentangle the effects by products' characteristics[207]. Firstly, she obtained cumulative results, according to which trade displays a high elasticity to export taxes, with 1% increase in the rate of export taxes associated with 3.8% decrease in the exported volume of the taxed products in the tax-imposing countries and a 2.8% decrease in the value of total exports[208]. Then, she found evidence that the impact of export taxes changes considerably depending on the categories of the products concerned. Export taxes on extractive industry products carry the greatest effects[209]. In particular, the author found that *"(t)he elasticity of export quantity to tax on extractive industries is estimated at -5.5 or three times higher than the overall elasticity. The coefficient relating tax and export value is lower in absolute value (-4.2), suggesting that export taxes contribute to the rise of the world prices of the goods in the extractive sector, and that the burden of tax on extractive industries is borne by both exporters and importers*"[210]. Moreover, the author concluded that in case of extractive industries the price of the taxed commodity is higher than the sum of the price before the tax and the tax. A reason for this may be related to the structural features of the mining sector, characterized by low price elasticity of both supply and demand as well as by a very high responsiveness to

[206] European Commission, DG Trade, Ninth Report, *supra* n. 52, at 9-12.
[207] Sollender, O., Trade Effects of Export Taxes, *supra* n. 143, at 10 *et seq.*
[208] *Id.*, at 14. The author explained that, since the elasticity of quantity to tax is smaller than the elasticity of value to tax, then "the difference must be driven by rising prices; otherwise export value would shrink to the same extent as quantity". Moreover, Sollander estimated that "the higher is the difference between the two values, the higher the change of the f.o.b. price and consequently the share of tax burden absorbed by the trading partners of tax imposing countries".
[209] *Id.*, at 17-18.
[210] *Id.*, at 17.

insecure business environment[211]. The author also observed that, at aggregate level, tax frequency and rates increase with market share and decrease with the degree of processing[212].

The impact of export restrictions on industrial raw materials was also analyzed with respect to measures implemented by specific countries. Among the restrictions instituted and/or maintained by Vietnam's main partners, more attention was given to the effects of the measures applied by China and India as great producers and exporters of selected raw materials, thus particularly able to influence market prices.

With respect to China, impact estimations of the export restrictions were made principally with respect to primary materials for steel production such as coke, as well as critical minerals such as molybdenum and rare earths. Regarding China's restrictions on the exportation of coke[213], recent studies revealed that coke prices rose sharply when the export quota was lowered in 2004 and again when export taxes were imposed in 2006. By 2008, Chinese internal prices were $241/MT lower than the export price, providing Chinese steel producers with a cost advantage of almost $145/MT for certain inputs over international competitors and equal to more than 20% of the world price for carbon steel[214]. Moreover, Chinese exports of carbon coke were sensibly reduced making coke an increasingly scarce resource due to China being the largest worldwide producer[215].

In addition, it was observed that the effects of China's export regime on molybdenum primary materials between 2007 and 2008[216] were running counter their stated environmental protection and conservation goals. In particular, the export restrictions in place did not result in a decrease in the domestic production of molybdenum in China, but

[211] The uncertainty induced by the imposition of export restrictions proves in fact particularly harmful for the mining sector, characterized by high capital intensity and long-term payback revenues, in that it may affect long-term investment and production response, thereby reducing and/or delaying incentives for the suppliers to increase their production and investment. Korinek, J. and Jeonghoi, K., *supra* n. 51, at 116.

[212] Sollender, O., Trade Effects of Export Taxes, *supra* n. 143, at 6.

[213] The export quotas on coke started to shrunk impressively in 2004, when the amount of exports permitted was cut by 25%. In 2006, the quota was 14 MT, while in 2007 it was 13.3 MT. The export quota for coke in 2008 was reduced by nearly 10%, to 12.0 MT and to 11.9 MT in 2009. A 5% export tax was introduced in 2006, and progressively increased over the course of 2007 and 2008 first to 15%, then 25% and finally to 40%. Sun, Z. and Xiangdong, X., Empirical Study on Chinese Coke Export Market Power, Journal of Chinese Economic and Foreign Trade Studies, Vol. 2(2) 2009. Such measures were found in breach of China's obligations by the Panel in the *China – Raw Materials* case (see *infra*, Chapter III).

[214] Price, A. H. and Nance, D. S., Export Barriers and the Steel Industry, in OECD, The Economic Impact of Export Restrictions on Raw Materials, 2010, OECD Publishing, at 91.

[215] Taube, M. and Thomas, P., The State-Business Nexus in China's Steel Industry, Think!Desk Report 2009. Viewed at: http://www.cbsa-asfc.gc.ca/sima-lmsi/i-e/ad1385/ad1385-i09-attachment-piecejointe-019.pdf (Visited 20 June 2013).

[216] China placed an export tax of 10% on molybdenum concentrates and oxides and ferromolybdenum and a 15% tax on molybdenum powder, unwrought molybdenum and scrap on 1 January 2007. This tax was raised to 20% on exports of ferromolybdenum in 2008. In mid-2007, an export licensing system was implemented raising the level of criteria for potential exporters of molybdenum and its products. On 1 July 2007, the VAT rebate was rescinded on molybdenum hydroxides and reduced to 5% on more processed molybdenum products. In 2007, an export quota was also placed on molybdenum and its level was further reduced in 2008. Korinek, J. and Jeonghoi, K., *supra* n. 51, at 111.

rather had the effect of boosting the internal production of intermediate molybdenum articles, whose exports increased by 120% in 2007 due to the incentives provided to downstream producers by decreased domestic price of primary products[217].

The European Union has criticized the mix of export restrictive measures applied by China on various forms of molybdenum materials, considering it generated a de facto dual pricing system. Chinese industry took advantage of it to increase its exports of value added products at below-the market prices, thus deteriorating the terms of competition and trade with China's important trade partners[218].

The same logic applies to the export restrictions applied by China on rare earths since the early 2000s[219]. Export controls were progressively tightened[220] upon realization by policy makers that rare earths are essential materials in different high-tech industries. These measures could thus be used to create "national champions" and contribute to the achievement of the industrial development policy objectives provided in the National Five-Year Plan (2011-2015)[221]. At the same time, the Chinese government has claimed rare earths would be exhausted at present rate of extraction within a time frame of 20-30 years[222].

China's policy on rare earths disturbed the international markets despite the relatively minor amount of rare earths-containing products[223]. China has a de facto monopolistic share of world production and export[224] of rare earth. The domestic price of rare earths in China is more than 30 per cent lower than the corresponding world price[225]. Furthermore China applies production quotas, the allocation of which is favorable to Chinese companies as opposed to foreign-owned ones. Dual pricing is thus evident and it enables Chinese producers to sell value added product in the international market at prices which are lower than the normal costs of input, thereby heavily distorting international competition to the detriment of non-Chinese competing companies[226].

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[217] *Id.*, at 112.

[218] European Commission, Annex V to the Report of the Ad-hoc Working Group on Defining critical raw materials, 30 July 2010, at 130-1. Viewed at: ec.europa.eu/enterprise/policies/raw-materials/files/docs/annex-v_en.pdf (visited 17 June 2013).

[219] Korinek, J. and Jeonghoi, K., *supra* n. 51, at 13 and 19-22.

[220] Hurst, C., China's Rare Earths Industry: What Can the West Learn, Institute for the Analysis of Global Security, 2010; and Morrison, M. and Tang, R., China's Rare Earths Industry and Export Regime: Economic and Trade Implications for the United States, CRS Report for Congress, 30 April 2012.

[221] As a follow-up of the National Plan, China elaborated various sector-specific plans; among them, the Ministry of Industry and Information Technology elaborated in 2012 the twelfth Five-year Rare Earths Industry Development Plan. European Commission, DG Trade, Fifth Report, *supra* n. 134, at 9-10.

[222] MOFCOM Declaration, "Ten Rare Metals Are Put Into Consideration for Strategic Stockpiles", cited in Gu, B., Mineral Export Restraints and Sustainable Development – Are Rare Earths Testing the WTO's Loopholes?, in Journal of International Economic Law, Volume 14, issue 4, at 768.

[223] Korinek, *supra* n. 51, at 117-9.

[224] World Mining Data 2012. Viewed at: http://www.bmwfj.gv.at/EnergieUndBergbau/WeltBergbauDaten/Documents/Weltbergbaudaten%202013.pdf (Visited 20 June 2013).

[225] Annex V, *supra* n. 218, at 163.

[226] *Id.*, at 209.

China's complex export regime on raw materials also causes significant diversions of imports from net-importing countries. This is the case, for instance, of antimony, for which China holds a *quasi* monopolistic position (accounting for more than 90 per cent of total production)[227]. China applies both an export tax and an export quota on ore and concentrates and an export quota on antimony products. This has lead the European Union and the United States to import from different sources. The former heavily imports from Bolivia, while the latter, although it still predominantly imports Chinese primary antimony imports (58 %), relies on Bolivia for the largest share of its imports of antimony ore and concentrates[228]. This clearly results from the effect of the Chinese export tax on the ore and concentrate and the absence of export tax in the metal form of antimony.

The same phenomenon applies to chromium ore produced in India. Economists have studied the impact of the export tax applied by India on this product between 2007 (INR 2,000 per ton) and 2008 (increased to INR 3,000 per ton). Its objective was to ensure greater supply within the domestic market. While the implementation of the export tax did not significantly change the level of total chromite production in India, it raised the share of domestic consumption at the expenses of exports, which decreased from 1,432,730 tons in 2006 (making India the second large world exporter) to 550,532 tons in 2008[229]. China – the biggest importer of chromite – diverted its source of imports from India to South Africa, whose exports increased by 200% from 2006 to 2008[230].

In conclusion, export restrictions in the extractive sector distort markets and generate global price increases in a similar way as export restrictions in the agricultural sector. However, due to differences in price elasticities and almost nil import tariffs in the extractive sector, the differentiation between international prices and domestic prices is more lasting in the extractive sector. This has a greater medium-term effect for the competitiveness of the domestic downstream industry of the country applying the restriction. It inevitably generates frustrations in international trade. Major trading partners are not only diverting their imports of the commodity concerned, but also, as indicated in the next chapter, seek to obtain the elimination of these measures before the relevant fora.

IV. the main concerns regarding the consistency of certain export control measures with the WTO and free trade agreements of the EU

[227] World Mining Data 2012, *supra* n. 224.
[228] USGS Mineral Commodities Summaries: Antimony. Viewed at: http://minerals.usgs.gov/minerals/pubs/mcs/2012/mcs2012.pdf (Visited 20 June 2013).
[229] Korinek, *supra* n. 51, at 114-5.
[230] *Id.*, at 115-6. China's share of world chromite production is negligible (1% in 2008), but it is a major producer of ferrochromium (i.e. the greatest chromite application used in metallurgy), which is around 20% share of global production.

This Chapter addresses the rules of the World Trade Organisation (WTO) and those of the free trade agreements (FTA) of the EU that apply to export restrictions.

IV. 1 The World Trade Organisation

A. Introduction – the scope

Both the GATT 1994 and the Agreement on Subsidies and Countervailing Measures (SCM) apply to export control measures. Protocols of Accession of new WTO Members also contain specific provisions regarding the use of export control laws.

The GATT 1994 is the prime source. Article XI:1 of the GATT, in particular, explicitly prohibits export quantitative restrictions and adopts a quite comprehensive scope by providing that:

> "*no prohibition or restrictions other than duties, taxes or other charges, whether made effective through quotas,…export licences or other measures, shall be instituted or maintained by any contracting party…on the exportation or sale for export of any product destined for the territory of any other contracting party"*.

Article XI:1 of GATT, however, does not prohibit the use of export duties and taxes.

Nevertheless, export duties and taxes may be subject to specific reduction or elimination commitments of WTO Members, particularly those who have acceded to the WTO after its entry into force. These obligations are typically found in the new Members' Protocols of accession and the associated Working Party's reports. They are country-specific and bind only those countries that agreed to include them in their accession package.

Some export restrictions may be justified by a non-trade policy objective, such as food security, the protection of the environment, public morality or national security. Articles XI:2, XX and XXI of the GATT define the conditions under which such measures can be taken. They provide for a distinction between the measures which genuinely pursue non-trade policy legitimate objectives and those which are disguised restrictions to trade.

Finally, the SCM agreement may be relevant to export restrictions, insofar as export control measures result in a subsidy for domestic downstream producers. In this respect, finding a violation of the SCM agreement is not obvious. However, some export control measures nullify or impair the expected benefits accruing from the WTO Agreements, in particular the SCM agreement and some action may be contemplated in that respect.

The following sections address each one of these legal sources of regulation of export restrictions, in light of the existing case-law.

B. Article XI:1 GATT

a) The admissibility of export duties

Article XI:1 of the GATT explicitly allows WTO Members to maintain export taxes. The exclusion of "duties, taxes or other charges…on the exportation", as opposed to quantitative exports restrictions, from the scope of application of Article XI:1 reflects the traditional preference of the GATT for "tariffs" over quantitative restrictions as the lawful means of restricting imports and exports[231].

While GATT contains a detailed framework for binding import tariffs and protecting the bindings from erosion, no provision was specifically envisaged to bind export duties in a manner similar to import tariffs[232]. However, Article XI:1 (a) of GATT does not impede the binding of export tariffs[233]. Furthermore, Article XXXVIII(*bis*):1 encourages

> "*negotiations on a reciprocal and mutually advantageous basis, directed to the substantial reduction of the general level of tariffs and other charges on imports and exports*" (emphasis added).

The Marrakesh Protocol to the GATT 1994, in its paragraph 6, provides for a non-mandatory mechanism for scheduling non-tariff measures in Part III of the Schedules of Concessions[234]. However, failing any definition of non-tariff measures, this mechanism was

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[231] Export taxes are the least damaging export control measures compared with other forms of controls for they are more transparent and predictable in their effects. See Bonarriva, J., Koscielski, M., and Wilson, E., Export Controls: An Overview of their Use, Economic Effects, and Treatment in the Global Trading System, US International Trade Commission, Office of Industries Working Papers, August 2009, at 16.

[232] Article II:1 (b), indeed, prohibits all *import* duties and charges in connection with importation other than ordinary custom duties on products bound in Schedules of Concessions.

[233] 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". Thus, the terms of Article II:1 (a) leave the space for Members to negotiate other type of commitments on an MFN basis in other parts of the Schedule.

[234] Notwithstanding the "Lerner symmetry" between import tariffs and export taxes (see Lerner, A.P., The Symmetry between Import and Export Taxes, Economica 3(11), 1936, at 306-313), export taxes have been treated in WTO as non-tariff measures (NTMs). Staiger has identified the rationale for opposing tariff measures to all other trade-restrictive measures, unified under the label "non-tariff measures", in the fact that "it is import tariffs alone that are the policy measure with which negotiated market access commitments are made through negotiated tariff bindings and in this way, tariffs have a special place relative to all non-tariff measures in the GATT/WTO". Staiger, R.W., Non-Tariff Measures and the WTO, Geneva, Working Paper ERSD, 2012, at 6. Viewed at: http://www.wto.org/english/res_e/reser_e/ersd201201_e.pdf (Visited 21 June 2013).

not used, except for rare examples related to import licensing. Except in two cases[235], no WTO Member as yet scheduled export duties in the Part III of its schedule[236].

The binding of export taxes could have been addressed in the latest rounds of negotiations. Indeed, as explained above, an excessively high export tax, which WTO Members are allowed to maintain, corresponds to a de facto export prohibition, and thus has the same effect of a total ban on the exportation of a product which is expressly forbidden in Article XI:1[237].

b) General prohibition of quantitative export restrictions

Article XI:1 of GATT prohibits all quantitative restrictions. More precisely, it outlaws both export "prohibitions" and export "restrictions… whether made effective through quotas, import or export licences or other measures". While the scope of the "prohibitions" elimination is straightforward (i.e. bans are outlawed), Article XI does not expressly mention the whole range of "restrictions" potentially falling within its scope.

WTO case-law has consistently interpreted in a broad way the term "restrictions" in connection to "other measures". It considered that prohibited restrictions can be implemented through a variety of means and not solely through a category of measures that may be considered formal quantitative restrictions, such as quotas. Prohibited measures are those that cause "*a limitation on action, a limiting condition or regulation*"[238].

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[235] There are at least two known cases of export duty concessions in GATT history. The first was a concession done by the United Kingdom to the Malayan Union on tin ore and concentrates in the early years of the GATT, and the second was made by Australia in the Uruguay Round of 1994 on certain iron ore, titanium ore, zirconium ore, coal, peat, coke, refined copper, unwrought nickel, nickel oxide, and lead waste and scrap in respect of the European Communities. In both cases, the concessions were extended to all Members under the MFN clause, and were set out in the tariff schedules annexed to the GATT. See Ya Qin, J., Reforming WTO Discipline on Export Duties: Sovereignty over Natural Resources, Economic Development and Environmental Protection, 46 Journal of World Trade 2012, at 1152.

[236] Paragraph 6 of the Protocol to the Marrakesh Agreement reads: "In cases of modification or withdrawal of concessions relating to non-tariff measures as contained in Part III of the schedules, the provisions of Article XXVIII of GATT 1994 and the 'Procedures for Negotiations under Article XXVIII' adopted on 10 November 1980 (BISD 27S/26-28) shall apply. This would be without prejudice to the rights and obligations of Members under GATT 1994".

[237] In this perspective, see, among others, Howse, R. and Josling, T., Agricultural Export Restrictions and International Trade Law: A Way Forward, IPC Position Paper, International Food and Agricultural Trade Policy Council, 2012, at 15; Crosby, D., WTO Legal Status and Evolving Practice of Export Taxes, International Centre for Sustainable Development, Bridges, Volume 12, Number 5, November 2008; Ya Qin, J., *supra* n. 235, at 1147-1190.

[238] See Panel Report, *India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WT/DS90/R, adopted on 22 September 1999, upheld by Appellate Body Report WT/DS90/AB/R, para. 5.128; cited with approval in Panel Report, *China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/R, WT/DS395/R, WT/DS398/R, circulated on 5 July 2011, paras. 7.206, 7.894-5, 7.1077-9, and Appellate Body Report, *China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R, adopted on 22 February 2012, para. 319.

Four cases specifically concerned export restrictive measures challenged under Article XI:1 GATT[239]: *Canada – Herring and Salmon* (1988)[240], *Japan – Semiconductors* (1988)[241], *Argentina – Hides and Leather* (2001)[242], and *China – Raw Materials* (2011)[243]. Another case, *China – Rare Earths,* is still pending before the Panel. The cases challenged the consistency of several measures under Article XI:1 GATT and, in all cases, the WTO Panels and Appellate Body considered them to fall within the scope of Article XI:1.

In *Canada – Herring and Salmon*, the measure at issue was a Canadian regulation adopted within the framework of Canada's fishery legislation that placed a prohibition on the exportation of "*any sockeye or pink salmon unless it is canned, salted, smoked, dried, pickled or frozen*". The panel concluded that such regulation was inconsistent with Article XI:1 of GATT, since the obligation imposed in Article XI:1 "*explicitly forbids Members from maintaining any prohibition*".

In *Japan – Semi-conductors*, the only case related to export restrictions applied on processed goods (i.e. semi-conductors), the challenged measure was an arrangement between Japan and the United States on trade in semi-conductors, pursuant to which Japan voluntarily agreed to monitor costs and prices of certain types of semi-conductors when exported to the US with a view to protect the US market from the inflow of cheap products. Confronted with the argument brought forward by Japan according to which the challenged measures constituted "voluntary" guidelines instead of legally binding regulations, the panel clarified that, since Article XI refers not to law or regulations but more broadly to "measures" irrespective of their legal status, non-mandatory measures may well fall within the scope of Article XI:1 GATT as long as they result in a de facto restriction on exportation. Furthermore, while noting that "*the complex of measures* [adopted by the Japanese government] *amounts to a coherent system restricting the sale for export of monitored semi-conductors at prices below company-specific costs to markets other than the United States*", the panel extended the applicability of Article XI:1 of GATT to minimum export price requirements. It concluded that a regulation preventing exportation below a minimum price level was a restriction on exportation inconsistent with Article XI:1 of GATT. Finally, the panel addressed the issue of whether non-automatic export licensing could fall within the scope of Article XI:1 and concluded that, since in the case of Japan there had been undue delays in the issuance of export licenses for specific semi-conductors, such circumstance constituted a breach of Article XI:1 of GATT.

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[239] For a synthetic yet complete overview of the case law relating to export restrictive measures see Karapinar, B., China's Export Restriction Policies: complying with "WTO-plus" or undermining multilateralism, 10 World Trade Review 2011, at 389-408.

[240] GATT Dispute Settlement Report, *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, L/6268 – 35S/98, adopted on 22 March 1988.

[241] GATT Dispute Settlement Report, *Japan – Trade in Semi-Conductors*, L/6309 – 35S/116, adopted on 4 May 1988.

[242] WTO Panel Report, *Argentina – Measures Affecting the Export of Bovine Hides and the Import of Finished Leather*, WT/DS155/R, adopted on 16 February 2001.

[243] WTO Panel Report and Appellate Body Report, *China – Raw Materials, supra* n. 238.

The applicability of Article XI:1 of GATT to de facto restrictions was then reiterated in *Argentina – Hides and Leather*. The dispute involved the European Community and Argentina, with the former challenging an Argentinean regulation that authorized the presence of domestic tanners' representatives in the custom inspection procedures for hides destined for export. According to the EC, this practice discouraged exporters of raw materials by delaying customs procedures and thus amounted to a de facto restriction. The Panel recognized that a quantitative restriction does not necessarily have to set an explicit numerical ceiling to be covered by Article XI:1, but it is sufficient that the measure produces the same effect, i.e. has the effect of reducing the volume of exports. However, it considered that in the case at issue there was insufficient evidence that the mere presence of the representative of the downstream sector in customs control would per se operate as an export restriction inconsistent with Article XI:1 of GATT.

In *China – Raw Materials*, the Panel confirmed the broad interpretation of Article XI:1 of GATT, and considered that all the challenged measures forming part of China's complex export regime on various forms of raw materials, namely quotas, export licensing requirements and minimum export prices, amounted to a "restriction" on exportation within the meaning of Article XI:1 GATT. In particular, after recalling that export quotas are per se inconsistent with Article XI:1 because they unambiguously have a "*restrictive or limiting effect on exportation*", the Panel applied Article XI:1 to export licensing and MEPs. As to export licensing, the Panel clarified that a system requiring an applicant to satisfy certain prerequisites before being granted an import or export licence would not necessarily run afoul of Article XI:1 unless the prerequisite itself creates a restriction or limiting effect on exportation. However, according to the Panel, a discretionary licensing system whereby a licensing agency can grant or deny a licence based on unspecified criteria would always run counter to Article XI:1 GATT because it results in a restriction additional to that inherent in a permissible measure. As to MEPs, the Panel further elaborated on the *Japan – Semiconductors* approach by affirming that

> "*The restriction or limitation on exportation arises from the possibility that a price is set at such level that exporters cannot find a potential buyer in order to sell their product […]. The Panel considers the very potential to limit trade to constitute a 'restriction' within the meaning of Article XI:1 of the GATT 1994*" (para. 7.1081) (original emphasis).

In sum, a substantial body of WTO case-law indicates that any form of quantitative restrictions on export may fall under the purview of Article XI:1 and thus be prohibited under GATT, irrespective of its legal status or of its de iure or de facto nature, as long as it places "*a limitation on action, a limiting condition or regulation*" or that it has "*the very potential to limit trade*". The burden of proof to demonstrate that the disputed measures are trade restrictive lies in the complaining party[244].

[244] See Karapinar, B., Defining the Legal Boundaries of Export Restrictions: A Case Law Analysis, 15 Journal of International Economic Law 2011, at 448.

C. "WTO-plus" obligations on the use of export duties contained in selected new Members' accession packages

Although Article XI:1 of GATT expressly allows export taxes, some newly acceding WTO Members have agreed to abide by country-specific obligations on the use of export duties within the context of their WTO accession negotiations. Such practice is part of a more general tendency on the part of WTO incumbent Members to request – and, according to some authors, impose[245] – to aspiring new Members requirements which either exceed the obligations arising out of multilateral WTO Agreements (so-called "WTO-plus" obligations) or lie outside the current WTO mandate (so-called "WTO-extra" obligations). The additional obligations negotiated by new WTO members on the use of export duties have been categorized as "WTO-plus" obligations in light of the possibility left to WTO members to negotiate export concessions in Part III of the Schedules of Concessions [246].

Among the thirty-one countries that have acceded to the WTO to date, nine have agreed to adopt WTO-plus commitments on export duties (Mongolia, Latvia, Croatia, China, Saudi Arabia, Vietnam, Ukraine, Montenegro, and Russia). The scope and scale of such commitments is quite uneven, with some countries accepting to phase down and/or eliminate export duties, either totally or on specific products, and some others binding export duties on a list of products – more or less comprehensive – at specific rates. The legal techniques adopted to negotiate export duty commitments vary as well: in most cases, WTO-plus commitments are set out in accession protocols, which constitute an "integral part" of the WTO Agreement and are thus enforceable under WTO law. For some countries, the use of export duties has been regulated through commitments undertaken in Working Party Reports[247]. Russia is the only country which created a new "Part V – Export Duties" within its GATT Schedule[248] where it bound over 700 tariff lines within such schedule[249].

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[245] Authors have identified a problem of "political imbalance" in WTO accession negotiations, linked to the fact that "[u]nlike WTO multilateral negotiations, in which diverse interests among Members can be expected to provide the checks and balances necessary to produce carefully drafted rules, WTO accession is a process in which the applicant country must negotiate against the entire incumbent Membership, through both bilateral and multilateral procedures". Ya Qin, *supra* n. 235, at 1157. For a more general discussion on the supposed iniquity of the accession negotiations see Jones, K., The Political Economy of WTO Accession: the Unfinished Business of Universal Membership, 8 World Trade Review, 2009, at 279-314.

[246] The distinction between WTO-plus and WTO-extra obligations borrows from Horn, H., Mavroidis, P.C. and Sapir, A., Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements, 33 The World Economy 2010, at 1567. The authors compellingly argue in favor of the categorization of the obligations on export duties binding upon new WTO Members as WTO-plus obligations in that, because of the potentiality for export concessions' negotiations left to WTO Members, "a WTO instrument already exists in this area" (*id.*, at 1571). For an extensive overview and analysis of the panorama of WTO-plus obligations contracted by newly acceding Members within the framework of their accession negotiations, see Charnovitz, S., Mapping the Law of the WTO Accession, in Janow, M. E., Donaldson, V., and Yanovich, A. (eds.), The WTO: Governance, Dispute Settlement and Developing Countries (Juris Publishing: 2008).

[247] The commitments contained in the Working Party reports are legally binding insofar as they are incorporated into a country's accession protocol. See, for instance, the language of paragraph 1.2 of China's Accession Protocol and paragraph 342 of the Working Party Report, incorporated into the former.

[248] GATT Schedule CLXV – The Russian Federation.

Among the countries subject to scrutiny in the present analysis, China and Vietnam undertook specific obligations on the use of export duties.

a) China's WTO-plus obligations on export duties

Pursuant to paragraph 11.3 of China's Accession Protocol[250],

> "*China shall eliminate all taxes and charges applied to exports unless specifically provided for in Annex 6 of this Protocol or applied in conformity with the provisions of Article VIII of the GATT 1994*".

Annex 6 to China's Accession Protocol, entitled "Products Subject to Export Duty", lists 84 eight-digit HS products, mostly including industrial raw materials, for which maximum levels of export duty (ranging from 20% to 40%) are provided. According to the Note to Annex 6,

> *"China confirmed that the tariff levels included in this Annex are maximum levels which will not be exceeded. China confirmed furthermore that it would not increase the presently applied rates, except under exceptional circumstances. If such circumstances occurred, China would consult with affected Members prior to increasing applied tariffs with a view to finding a mutually acceptable solution*."

b) Additional obligations undertaken by Vietnam

Vietnam took limited commitments regarding the use of export duties on specific products. It clearly stated in its Working Party Report that:

> *"[t]he representative of Viet Nam confirmed that Viet Nam would apply export duties, export fees and charges, as well as internal regulations and taxes applied on or in connection with exportation in conformity with the GATT 1994*"[251].

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[249] According to the introductory statement of Part V of the Russian Schedule, Russia agreed "not to increase export duties, or to reduce or to eliminate them, in accordance with the following schedule, and not to introduce or increase beyond the levels indicated in this schedule, except in accordance with the provisions with GATT 1994".

[250] Accession of the People's Republic of China, Protocol on the Accession of the People's Republic of China, WT/L/432, 23 November 2001.

[251] Vietnam's Working Party Report (WT/ACC/VNM/48, 11 January 2007), incorporated by terms of paragraph 527 into Vietnam's Accession Protocol (WT/L/662, 11 January 2007), para. 260.

Pursuant to paragraph 260 of Vietnam's Working Party Report, Vietnam only agreed to gradually reduce export duties imposed on various forms of ferrous and non-ferrous scrap metals indicated in Table 17 (i.e. steel, copper, aluminium, nickel, tin, lead, and zinc).

In Table 16 of Vietnam's Working Party Report, 43 products are listed which were subject to export duties at the time of accession, pursuant to Decision No. 45/2002/QD/BTC. The products concerned include hides and skins, wood products, various forms of ferrous and non-ferrous metals and scrap metals. In paragraph 257 of the Working Party Report, Vietnam stated that the imposition of export duties on these products is consistent with WTO rules. Therefore, the list in Table 16 of the Working Party Report is not meant to bind Vietnam, nor does it pre-empt it from imposing export duties on different products from the ones mentioned, except as regards the scraps indicated in Table 17.

D. Acceptability of non-trade policy objectives

a) Introduction

As indicated in chapter II above, several of the measures implemented by Vietnam's main partners are reportedly aimed at pursuing legitimate policy objectives such as avoiding shortages of essential commodities, protecting the environment and exhaustible natural resources, and preventing weapon proliferation. These non-trade policy objectives may justify, under certain conditions, the adoption of measures which are inconsistent with Article XI:1 of the GATT or the commitments in Protocols of Accession.

The objective of the relevant WTO rules is to ensure a right balance between trade and non-trade concerns. Their purpose is also to ensure that legitimate non-trade policy objectives are not used to disguise prohibited restrictions to trade. Several provisions apply in this context, which are described in sections b) to d) below. A specific issue arises with respect to the applicability of these exception provisions to the commitments undertaken by newly acceded Members in their Accession Protocols (section e) below).

b) Shortages of essential products: Articles XI:2 of GATT and XX(j) of GATT

Article XI:2 (a) of GATT authorizes the adoption of "*export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party*".

In the case *China – Raw Materials*, the Appellate Body narrowly interpreted this provision and identified three main elements:

- firstly, the "temporarily applied" requirement demands that export restrictions or prohibitions are limited in time. On this basis, the Appellate Body condemned

China's export quota on refractory-grade bauxite considering its decennial application, and "*every indication that it will remain in place until the reserves have been depleted*". According to the Appellate Body, this suggested that the measure addressed a situation of permanent shortage falling outside the scope of Article XI:2 (a) of GATT. The fact that China's export quota was subject to annual review was not sufficient to demonstrate that it would be maintained for the time necessary to prevent or relieve a critical shortage[252].

- Secondly, the "critical shortage" requirement refers to a situation that reaches a decisive importance or crisis.

- Thirdly, the "essential" nature of a product requires that the product is "'*important or 'necessary' or 'indispensable'*" to a particular Member considering "*the particular circumstances faced by that Member at the time when a Member applies a restriction or prohibition*"[253]. Interestingly, the Panel considered that this condition was met. It considered refractory-grade bauxite was "essential" to China within the meaning of Article XI:2 (a) given its strategic importance for China's iron and steel industries, its contribution to Chinese economic development, and the complexity in substitutability[254].

Based on such interpretation, it appears difficult to justify lasting export restrictions to prevent increases of food prices or any restrictions on intermediary material merely for strategic industrial purposes. However, depending on the circumstances of the case, certain export restrictions of a temporary nature could be justified, even for industrial policy purposes, if they address critical shortages of a product which is indispensable to a domestic industry.

Article XI:2(a) of GATT is to be associated with Article XX(j) of GATT, which enables quantitative export restrictions if these are:

> "*essential to the acquisition or distribution of products in general or local short supply; provided that any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist*".

The Appellate Body distinguished Article XI:2(a) of GATT and Article XX(j) of GATT, as follows:

[252] Report of the Appellate Body, *supra* n. 238, at 338.
[253] *Id.*, at 323 *et seq*.
[254] Panel Report, *supra* n. 238, paras. 7.340-5.

> "*Contrary to Article XI:2 (a)…Article XX (j) does not include the word "critical" or another adjective further qualifying the short supply. We must give meaning to this difference in the wording of these provisions. To us, it suggests that the kinds of shortages that fall within Article XI:2 (a) are more narrowly circumscribed than those falling within the scope of Article XX (j)*" (para. 325).

Article XX(j) of GATT, however, requires that all WTO Members receive "*an equitable share of the international supply*" of the products subject to export restrictions, and that the export restrictions which are inconsistent with the GATT are "*discontinued as soon as the conditions giving rise to them have ceased to exist*".

In conclusion, should export restrictions be taken only for industrial policy or market intervention purposes, they will likely not pass the test of either Article XI:2(a) of GATT or Article XX(j) of GATT, unless a shortage of the product subject to the measure can be established and the restriction is temporary. As to the question whether the Member adopting the measure should provide to its partners an "equitable share of the international supply" of the product concerned, this must be assessed on a case-by-case basis and would depend on how "critical" is the shortage.

c) Protection of the environment, health, and exhaustible natural resources: Articles XX(b) and XX(g) of the GATT

Pursuant to Article XX(b) of the GATT, an export restriction contrary to the GATT can be justified if it is "*necessary to protect human, animal and plant life or health*". Pursuant to Article XX(g) an export restriction can be justified if it is "*related to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption*".

Furthermore, pursuant to the introductory paragraph of Article XX of GATT, notwithstanding the export restrictions would meet the requirement of these sub-paragraphs, they cannot be "*applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade*". This provision was interpreted by case-law as requiring Members to proactively pay attention to the trade interests of their trade partners and seek to minimise as much as possible the negative effects on trade in the application of their measures. In particular, unilateral and unconcerted measures are frown upon and Members are encouraged to address their non-trade concerns through indiscriminate consultations.

Export restrictions were addressed under Articles XX(b) and XX(g) of the GATT in the case "*China – Raw Materials*".

Regarding Article XX (b), the Panel was not persuaded that the measures at issue genuinely addressed alleged pollution and health risks, despite the quantitative and qualitative arguments China put forward. The Panel considered that the risks identified were highly speculative and the methodology incorrect. It considered that to allow a Member to resort to export restrictions "*on any raw materials simply because they help increase growth and, in turn, eventually reduce pollution*" would significantly alter the fundamental meaning of Article XX (b) of GATT. Furthermore, the Panel considered that the measures at issue were not "necessary" to achieve their stated health and environmental objectives, as required by Article XX(b). Firstly the Panel considered that export restrictions "*are not an efficient policy to address environmental externalities when they derive from domestic production rather than export or imports [since] the issue is the production itself and not the fact that it is traded*". Secondly, the Panel considered that China's challenged export restrictions, even if modest, would have a very significant distortive impact on the world market given the high export market share enjoyed by China. According to the Panel, there were less trade restrictive alternative measures available to achieve the stated objective. These alternatives measures would consist for instance in investments in cleaner technologies, recycling of consumer goods, improved environmental standards, production restrictions and incentives to the recycling industry.

Regarding Article XX(g) of the GATT, the Panel recognized that a "*comprehensive policy comprising a multiplicity of interacting measures*" can qualify as a conservation policy within the meaning of Article XX (g), as part of a country's sovereignty over its natural resources. However, the Panel also clarified that the mere reference to a list of measures that, more or less directly, proclaim a conservation or an environmental goal is not in itself sufficient to establish that a measure "*relates to conservation*" within the meaning of Article XX (g). Rather, there should be strong and reliable evidence to establish a clear link between a challenged measure and the proclaimed non-trade goal, and that the expected preservation effect is indisputably associated with the measure concerned. In the case at issue, the Panel considered that the export restrictions would hardly qualify as "*related to conservation*" within the meaning of Article XX (g) of GATT. According to the Panel, the essence of export restrictions, which do not target domestic production but the distribution between domestic and foreign consumption, renders them per se "*difficult to reconcile with the goal of conservation*". For the Panel, "*for the purpose of conservation of a resource, it is not relevant whether the resource is consumed domestically or abroad; what matters is its pace of extraction*". In this regard, the Panel noted that the caps on domestic mining and production introduced by China were set above the actual production rate and provided for a transitional period before being implemented. For this reason, the Panel not only questioned the relevance of the measure, but also concluded that it was inconsistent with the second leg of Article XX(g) of the GATT, which requires the trade restriction to be "*made effective in conjunction with restrictions on domestic production or consumption"*.

In conclusion, the case-law above suggests it would be very difficult for export restrictions, which are claimed to be applied for health or environmental purposes, to successfully be justified under Articles XX(b) or XX(g) of the GATT if

- either there are less trade restrictive measures available to achieve the objective sought (article XX(b)) or
- they are not associated with strict production caps of the products subject to the restriction (Article XX(g)).

These measures must also be accompanied by several other measures to show they are part of a consistent health or environmental policy of the country adopting them. Finally, in accordance with the introductory paragraph of Article XX, they at least must be discussed with the trade partners with a view to minimize the negative trade consequences for them.

d) National security: Article XXI of the GATT

Pursuant to Article XXI of GATT, Members are allowed to take any action "necessary for the protection of their essential security interests" and

- "relating to fissionable materials or the materials from which they are derived";
- "relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment";
- "taken in time of war or other emergency in international relations"; or
- "taken in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security".

This provision is deemed to cover all export control measures taken for security reasons and regarding dual use-goods, especially those taken in accordance with the existing multilateral non-proliferation regimes.

e) Domestic industrial policy: Article XX(i) of GATT

Pursuant to Article XX(i) of the GATT, an export restriction contrary to the GATT can be justified if it involves

> "*restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; Provided that such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination*"

This exception is explained by the fact that when domestic prices of a product fall below international prices, WTO Members wanted to keep the possibility to restrict exports of this product if its domestic supply is insufficient to satisfy the needs of the domestic processing industry. The GATT negotiators indeed considered that it is not reasonable to oblige States to authorize exports of these products by some domestic economic operators while other domestic operators would have to import them at higher prices.

However, in order to avoid possible abuses, this exception comes along with certain conditions: firstly, it can apply only during the periods in which the domestic price of the material is below international prices. This excludes therefore the measures that are taken outside this situation in order to generate such prices differences. Furthermore, the authorized restrictions cannot have the effect to increase the exports of the downstream products, or to support the protection to the domestic industry of such products. Finally, the restrictions cannot be discriminatory.

The exception provided by Article XX(i) of the GATT therefore targets only straight domestic industrial policy objectives, in order to preserve a domestic processing industry. It cannot be intended to foster the export competitiveness of processed products or entail the types of distortions in international markets that many export restrictions generate.

f) Applicability of exception provisions to commitments in Protocols of Accession

The question arises whether or not newly acceded WTO Members which took commitments regarding export taxes in their Protocols of Accession can invoke the exception provisions above in order to safeguard their non-trade policy objectives and interests.

In the case *China – Raw Materials*, the Appellate Body addressed this issue. It stated that this depends on the language incorporated in such additional commitments. The case at issue addressed various export duties China had maintained in violation of its commitments under paragraph 11.3 of its Accession Protocol. The Appellate Body noted that the text of this provision, while expressly making reference to Article VIII of the GATT, does not do so for the other provisions of the WTO Agreement, nor of the GATT, and the exceptions provisions of Article XX. This is in contrast with other paragraphs of China's Accession Protocol, such as paragraph 5.1, which was addressed by the Appellate Body in the case *China – Audiovisuals*. Furthermore, the Appellate Body noted that other two sub-paragraphs of paragraph 11 include the phrase "*in conformity with the GATT 1994*". This is also the case of several other paragraphs of China's Working Party Report, which also prohibit the use of export duties. The Appellate Body thus upheld the Panel's conclusion according to which, considering China's obligation to eliminate export duties arises exclusively from China's Accession Protocol, and not from the GATT, "*it is reasonable to assume that, had there been a common intention to provide access to Article XX* [for violations of Paragraph 11.3], *language to that effect would have been inserted* [therein] *or elsewhere in China's Accession Protocol*".

In light of the Appellate Body's approach, China's is pre-empted from justifying under Article XX any export tax inconsistent with paragraph 11.3 of its Accession Protocol. By contrast, the language of paragraph 260 of Vietnam's Working Party Report expressly incorporates the phrase "in conformity with the GATT 1994". Therefore Vietnam is entitled in principle to try to defend its export duties on ferrous and non-ferrous scrap metals, which are listed in Table 17 of its Working Party Report, under Article XX GATT (taking into account the difficulties inherent with the application of this provision).

g) Conclusion

Based on the above, a defence of export restrictions, under Article XX of GATT, remains quite complex and subject to several conditions, which likely exclude the export restrictions fostering the export competitiveness of a downstream industry. Conditions include in particular the following:

- If the measure is adopted to address a shortage of the product concerned, it must be temporary. The Member adopting the measure may have to provide to its trading partners an "equitable share of the international supply", unless the shortage is critical.

- If the measure is adopted for health or environmental reasons, the measure must clearly address a specific risk identified and there cannot be less trade restrictive measures reasonably available to achieve the objective sought. Most often a Panel will find the existence of such alternative measures. The measure must also be discussed with the trade partners with a view to minimize the negative trade consequences for them.

- If the measure is adopted for conservation purposes, it must be associated with strict production caps of the product subject to the restriction. The measure must also be accompanied by a consistent environmental policy and discussed with the trade partners with a view to minimize the negative trade consequences for them.

- If the measure is adopted in order to stabilize domestic prices, it cannot foster the export competitiveness of processed products or entail distortions in international markets.

Export restrictions adopted for dual use products and for security purposes in principle do not pose problems.

Finally, for newly acceded WTO Members, the availability of a defence under Article XI:2, XX or XXI of the GATT, at the conditions above, for export duties adopted in violation of their accession commitments depends on the language adopted in their accession documents.

E. Relevant provisions under the Agreement on Subsidies and Countervailing Measures (ASCM)

Export restrictions favouring producers of a downstream product could be disciplined under the ASCM if they fulfil the definitional elements of "subsidy" under Article 1 ASCM.

This Article provides that in order for a government measure to qualify as a subsidy, it must: 1. provide a contribution by a government or any public body within the territory of a Member; and 2. confer a benefit to the recipient.

Another way to establish the existence of a subsidy is to establish that a measure: 1. provides "*any form of income or price support in the sense of Article XVI of GATT 1994*"; and 2. confers for that reason a benefit to the recipient.

a) A contribution by a Government

Pursuant to Article 1.1(a) of the SCM Agreement, a contribution by the government exists in any of the following situations:

> *"(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);*
>
> *(ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);*
>
> *(iii) a government provides goods or services other than general infrastructure, or purchases goods;*
>
> *(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments".*

In the case of export restrictions, it is difficult to find the existence of a "*contribution by the Government*" in the sense of these provisions. The only category that seems remotely relevant would be category 3 "*the government providing goods*", associated with the last category "*the government entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above*". Although the Government obviously does not provide itself the cheaper input material, the effect of the export restriction is that the

government entices private operators to provide the material to domestic users as opposed to foreign buyers at a price that is below market prices. The main difficulty in this respect would be to demonstrate that the government's "encouragement" is actually a form of "entrustment" or "direction" in the meaning of point (iv) above. Considering the existing WTO case law regarding this issue in the *US – DRAMS from Korea* dispute, this demonstration is uneasy, since it must be established that the Government is in a position to control the private suppliers and to command them to sell the input material to domestic users[255]. Depending on the facts of the case, this may be possible in some non-market economy countries through the use of State-trading enterprises.

This conclusion was confirmed in the case *US – Export Restraints*[256]. Canada challenged the possibility offered in U.S. countervailing duty (CSV) law to impose a countervailing duty against the effects of export restraints. Canada claimed that these measures do not meet the definition of "financial contribution" under Article 1.1 of the SCM Agreement. The Panel first noted that the definition of export restraint referred to by Canada for the purpose of the dispute was:

> " *a border measure that takes the form of a government law or regulation which expressly limits the quantity of exports or places explicit conditions on the circumstances under which exports are permitted, or takes the form of a government-imposed fee or tax on exports of the products calculated to limit the quantity of export*".

The Panel concluded that an export restraint defined in this way cannot constitute government-entrusted or government-directed provision of goods in the sense of sub-paragraph (iv) and hence does not constitute a financial contribution in the sense of Article 1.1. (a) of the SCM Agreement". The Panel, in particular, observed that a mere government intervention in the market by itself which leads to a particular effect is not sufficient to prove the existence of a "financial contribution" within the meaning of Article 1.1 (a) (1) (iv) of the SCM Agreement; otherwise every government intervention having an effect on the marketplace would meet this definitional element of a subsidy. Accordingly, the Panel noted that export restraints in the sense used in the dispute cannot satisfy the "entrusts or directs" standard provided for in Article 1.1 (a) (1) (iv) since such standard requires an "explicit and affirmative action of delegation or command" to a private body. Hence, the Panel found that the treatment of these export restraints as financial contribution is inconsistent with Article 1.1 (a)[257].

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[255] WTO Appellate Body Report, *US – Countervailing Duties Investigation on Dynamic Random Access Memory Semiconductors (DRAMS) from Korea*, WT/DS/296/R, adopted on 20 July 2005, paras. 110-116.

[256] WTO Panel Report, *US – Measures Treating Exports Restrictions as Subsidies*, WT/DS194/R, adopted on 29 June 2001.

[257] For a critical analysis of the Panel's conclusion, see Janow, M. and Staiger, R. W., US – Export Restratins, The WTO Case Law of 2001 (Cambridge University Press: 2003), at 201-235; and, Reich, A., Privately Subsidized Recycling Schemes and their Potential to Harm to Developing Countries: Does International Trade Law Have a Solution?, 23 Virginia Environmental Law Journal 2004, at 204-249.

In conclusion, an export restriction on a product may qualify as a contribution under Article 1.1. (a) of the SCM Agreement only if it is associated with sales or purchases by domestic STEs, under government control and at the latter's direction, of the product subject to the restriction.

b) Any form of income or price support in the sense of Article XVI of GATT 1994

Irrespective of a contribution by the Government in the sense of Article 1.1(a) of the SCM Agreement, a measure may also be deemed to be a subsidy if it provides "*any form of income or price support in the sense of Article XVI of GATT 1994*".

Article XVI of the GATT does not specify the notion of "income or price support", but it adds that the subsidies it addresses are those which "*operate directly or indirectly to increase exports of any product from* [the Contracting Party which grants the subsidy], *or to reduce imports of any product into* [the Contracting Party which grants the subsidy]" This suggests that in the absence of a financial contribution by the government in the sense of Article 1.1(a) of the SCM Agreement, income or price support mechanisms can be taken into consideration only if they have a tangible effect on the international markets. As indicated in Chapter III above, this may be the case of certain export restrictions.

c) The contribution or the income or price support mechanism confer a benefit to the recipient

In order to qualify as a subsidy, a contribution by a government or an income or price support measure must provide a "benefit" to the recipient. In the case of export restrictions, the benefit would be provided to the domestic buyers of the products subject to the restriction.

The existence of a benefit is defined in relation to normal commercial conditions applicable in a given market. One must determine whether under market conditions, the measure improves the competitive position of the beneficiary as compared to what would be its situation in the absence of the measure. In the case of the purchase of goods, Article 14(d) of the SCM Agreement refers to "*adequate remuneration*" to the seller, which must be "*determined in relation to prevailing market conditions for the good or service in question in the country of provision … (including price, quality, availability, marketability, transportation and other conditions of purchase or sale)*".

There is no doubt that, as indicated in Chapter III above, export restrictions may confer a benefit, in the economic sense, to the buyers of domestic intermediary products when they successfully manage to artificially decrease the domestic prices of these domestic inputs as compared to prevailing international prices.

There exists however a possible legal difficulty related to the determination of a "benefit" under Article 1.1 (b) and an "adequate remuneration" under Article 14(d). This concerns the identification of the appropriate "market benchmark" when a domestic market is distorted by a government intervention, which is the case of export restrictions. If the benchmark is the price before the export control measure was implemented, then there would be a benefit. However, prices may evolve irrespective of such measures and the most appropriate benchmark would actually be the prices existing in the market as found at the time of purchase. This would thus incorporate in the benchmark market price of all regulatory measures existing at the time of purchase, including the export restrictions. In that case, unless the government itself artificially sets the prices, the benchmark price is the price of purchase and there would be no benefit.

In the case of the countervailing duties imposed by the US on softwood lumber originating in Canada, the Appellate Body clearly recalled the basic principle that the adequate "market" remuneration must be assessed in relation to the market prices in the country where the purchase takes place[258]. This means that if there is no domestic market because the government plays a predominant role in the supply of the goods, alternative methods for the determination of the adequate remuneration must be found. For the Appellate Body, the role of the government is predominant when it "*effectively determines the price at which the private suppliers sell the same or like products*", in other words, when the private suppliers have no other choice than to align their prices on those of the government[259]. This is not really the case of export restrictions, which while they constitute a market intervention, they do not give a predominant role to the government in setting the prices.

When the role of the government is not preponderant, but the market does not function "normally" because of a government intervention, the Appellate Body in both the softwood lumber case and in the case of the feed-in tariff programme established by the Canadian Province of Ontario, suggested that the benchmark can be the prices prevailing in that market notwithstanding the government intervention[260]. However, in the feed-in tariff case, the Appellate Body also stated the following:

> "*5.188. Nevertheless, a distinction should be drawn between, on the one hand, government interventions that create markets that would otherwise not exist and, on the other hand, other types of government interventions in support of certain players in markets that already exist, or to correct market distortions therein. Where a government creates a market, it cannot be said that the government intervention distorts the market, as there would not be a market if the government had not created it. While the creation of markets by a government does not in and of itself give rise to subsidies within the meaning of the SCM Agreement, government interventions in existing markets may amount to subsidies when they take the form of a financial*

[258] WTO Appellate Body Report, *United States - Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, WT/DS257/AB/R, adopted on 19 January 2004, para. 85.
[259] *Id.*, paras. 87-96, and para. 101.
[260] WTO Appellate Body Report, *Canada – Measures Relating to the Feed-in-Tariff Program*, WT/DS426/AB/R, adopted on 6 May 2013, paras. 5.178, 5.183, 5.185.

contribution, or income or price support, and confer a benefit to specific enterprises or industries".

This language is ambiguous since it suggests that while prices in distorted markets can be considered, this does not necessarily mean there is no benefit. In the softwood lumber case, the Appellate Body also confirmed that a case-by-case approach must be adopted in this regard. In that case, it refused to provide itself the benchmark in the market considered. It simply stated that benchmark methods must relate to "*the prevailing market conditions in that country, and must reflect price, quality, availability, marketability, transportation and other conditions of purchase or sale*", in accordance with Article 14(d) of the SCM Agreement[261]. The Appellate Body has also admitted that, in exceptional cases, constructed values based on costs of production or taking into account the prices for similar goods quoted on world markets can be used.[262]

In summary, if an industrial user buys a commodity in its domestic market at a price below international prices because of an export restriction, depending on the circumstances, that price does not necessarily constitute a benefit under the SCM Agreement. However, as soon as it can be established that such price is not "normal" given the cost structure of the production and sale of that material, an argument can be made that the export restriction confers a benefit to the buyer.

d) Conclusion

Given the above, it is premature at this stage to assess in general whether or not export restrictions would be considered as subsidies under the SCM Agreement. This cannot be excluded.

If the measure leads to a reduction of the domestic price of a commodity and has a tangible effect on the international markets of a processed good using that commodity, it could be construed as a price support mechanism.

If the measure leads to a reduction of the domestic price of a commodity and the government instructs its domestic producers to sell the product to one or more domestic processing enterprises, this measure could be construed as a contribution by the government.

If the measure entails a reduction of the price of the restricted product in the domestic market to such an extent that its sale is below normal profitable conditions for the producer / seller, an argument could be made the measure confers a benefit to the purchaser of that product.

[261] WTO Appellate Body Report, *supra* n. 258, paras. 101-103.
[262] *Id.*, para, 106.

When the measure confers a benefit to the recipient and constitutes either a price support mechanism or a contribution by the government, it qualifies as a subsidy subject to the disciplines of the SCM Agreement.

It should be reminded that the SCM Agreement prohibits export subsidies and import substitution subsidies. It also enables action against subsidies which cause adverse effects to the interests of other Members. For a full explanation of the disciplines imposed on subsidies under the SCM Agreement, reference is made to other papers produced under the auspices of MUTRAP.

IV.2 The treatment of export restrictive measures under existing EU FTAs

A. FTAs under the WTO: the "*substantially all trade*" condition

Pursuant to Article XXIV of the GATT, a Free Trade Agreement can be concluded if it liberalises "substantially all trade" among its parties. More precisely, the relevant provision (Article XXIV:8) states that

> "*A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories*". (emphasis added)

This provision thus concerns not only import duties, but arguably also export duties. These are indeed included in the expression "*other restrictive regulations of commerce*". Their elimination for "*substantially all trade*" among the parties is thus required in principle.

However, as noted by the Appellate Body in the case *Turkey-Textiles and Clothing*, not all trade must be liberalized[263]. This means that part of such trade can be excluded from the scope of the FTA. The volume and value of the trade concerned is not further specified and hence the matter is left to the Members' practice, until a complaint is brought before the WTO Dispute Settlement Body. It is the practice of the EU to demand to its trade partners in the FTA that at least 90 % of trade is liberalized.

Regarding export duties, while they are subject to the requirement of Article XXIV of GATT, they can theoretically be part of the trade that would be excluded from the scope of the FTA, subject to the limits agreed among the parties. However, this would inevitably

[263] WTO Appellate Body Report, *Turkey – Restrictions on Imports of Textile and Clothing Products*, adopted on 19 November 1999, WT/DS34/AB/R, para. 48.

entail a reduction of the volume and value of the imports that could be excluded from the FTA, so as to meet the requirement of "substantially all trade".

B. The EU FTAs

The European Union has concluded several FTAs, among which:

- Mexico (2000);
- South Africa (2000);
- Chile (2003);
- South Korea (2011); and
- Colombia and Peru (2013).

The EU has also concluded 23 association agreements containing free trade provisions with territories in Europe (Faroe Islands, Norway, Iceland, Switzerland, the former Yugoslav Republic of Macedonia, Croatia, Albania, Montenegro, Bosnia and Herzegovina, Serbia) and the Southern Mediterranean (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestinian Authority, Syria, Tunisia).

Furthermore, the EU has concluded Economic Partnership Agreements (EPAs) with African, Caribbean and Pacific countries, the most notable one being the EU-CARIFORUM EPA (Caribbean, Pacific and Eastern and Southern Africa)[264]. Interim EPAs have also been concluded with single ACP States, such as Côte d'Ivoire, Cameroon, Fiji, Papua New Guinea, etc.

Finally, the EU has also concluded customs union agreements with Andorra, San Marino, and Turkey.

All these agreements include rules governing export taxes and most of them either repeat or improve the WTO disciplines regarding quantitative export restrictions[265].

C. Rules governing export taxes in FTAs

EU FTAs typically contain a provision prohibiting export duties, with some exceptions providing for a progressive phasing out of export duties on designated products[266].

[264] See Europa online information "The EU's Free Trade Agreements: Where Are We?. Viewed at: http://europa.eu/rapid/press-release_MEMO-13-576_en.htm (visited 21 June 2013).

[265] For a comprehensive comparative analysis of export restrictions disciplines in FTAs see Korinek, J. And Bartos, J., Multilateralising Regionalism: Disciplines on Export Restrictions in Regional Trade Agreements, OECD Trade Policy Papers No. 139/2012. Viewed at: http://www.oecd-ilibrary.org/docserver/download/5k962hf7hfnr.pdf?expires=1372002418&id=id&accname=guest&checksum=2AB93EC709E7928AD8AA1859610FB3AD (Visited 21 June 2013).

Export duties tolerated in the EU FTAs mainly concern agricultural products. This is the case of the EU FTAs concluded with neighbouring countries such as Albania, Bosnia, Croatia and Macedonia[267]. These agreements also provide for exceptions for goods listed in Annex I of the WTO Agreement on Agriculture (e.g. essential oils, hides and skin, raw silk, raw fur skins, raw cotton, raw flax, wool and animal hair, and raw hemp)[268]. Other agreements, such as the EU-Israel FTA, authorise export duties on certain listed agricultural products on the condition that quantitative export restrictions on these products are eliminated[269]. In the EU-CARIFORUM EPA, some export duties, to be progressively phased out are authorized for wood products and precious stones[270].

D. Rules governing quantitative restrictions in FTAs

Regarding quantitative export restrictions, EU FTAs add little to the WTO disciplines. They typically ban all quantitative export restrictions in the same way as Article XI:1 of the GATT does.

E. Rules Governing non-trade policy concerns in FTAs

The main differences with the rules of the WTO contained in the EU FTAs concern the exception provisions for non-trade policy objectives.

While FTAs typically include language similar to Article XXI of GATT (security exception) and Article XX(b) and XX(g) of GATT (non-trade policy objectives), several FTAs authorize less exceptions than the WTO: for instance, the EU-South Africa Trade and Development Cooperation Agreement contains neither an Article XI:2 (a)-equivalent exception nor any conservation-related exceptions such as those provided for in Article XX (g) and (j)[271]. The EU-CARIFORUM and EU-Cote d'Ivoire Interim EPA restrict the "shortage" clause to apply to food commodities only[272]. The EU-Israel FTA the does not provide for a conservation clause[273]. The EU-Chile Agreement does not provide for a

[266] Examples : Article 58.2 of EU-Chile FTA, Article 14 of EU-CARIFORUM FTA ; Article 25 of the EU-Colombia-Peru FTA, Article 2.11 of the EU-Korea FTA.
[267] Articles 17 and 33 of EU-Albania Association Agreement; Articles 7 and 19 of EU-Bosnia Association Agreement; Articles 20 and 33 of EU-Croatia Association Agreement; Articles 20 and 32 of EU-Macedonia Association Agreement
[268] Article 17 (1) of EU-Albania Association Agreement; Article 4(1) of EU-Bosnia Association Agreement; Article 16(1) of EU-Croatia Association Agreement; Article 16(1) of EU-Macedonia Association Agreement
[269] Articles 9 and 17 of EU-Israel Association Agreement.
[270] See Annex I of the EU-CARIFORUM EPA.
[271] Article 27 of EU-South Africa TCAD.
[272] See Article 40 of the EU-CARIFORUM Agreement. Article 224 of that Agreement does not include the shortage and industrial policy clauses of Articles XX(i) and XX(j) of GATT; Article 20 of EU-Cote d'Ivoire Interim EPA.
[273] Article 24 of EU-Israel Association Agreement only contains language similar to the Article XI:2 (a) shortage clause.

"domestic industrial policy" clause mirroring Article XX(i) of GATT[274]. The shortage clause in this agreement enables the Parties to adopt "appropriate measures", which "least disturb the functioning of the arrangements under the agreement", without referring to export restrictions[275].

By contrast, some FTAs provide for a re-export exception to prevent the undesired re-export of a good to which one of the parties applies an export tax to a country outside the FTA (e.g. EU-Croatia, EU-Macedonia, EU-Montenegro, EU-Israel, EU-Lebanon and EU-Mexico FTAs)[276].

In several FTAs, the use of a shortage or a re-export exception is conditioned by a prior notification requirement to the relevant Committee of the FTA in order to facilitate an agreement suitable to both parties (e.g. EU-Chile, EU-Bosnia, EU-Croatia, EU-Macedonia, and EU-Montenegro FTAs) [277].

F. Conclusion with respect to FTAs

The rules in FTAs contain at least the same prohibitions as those of the GATT. In principle, they must restrict, if not entirely prohibit, the use of export taxes. They may also further limit some of the exceptions authorized by the GATT. The practice of the EU in this respect varies according to the FTA negotiated. The precise scope of the rules regarding export duties is obviously subject to negotiations among the parties.

V. Impacts of export control measures in Vietnam

V.1 Economic arguments for export controls

The groups of commodity under current export control of Vietnam's Government are mainly weapon, explosive materials, antiques, rare animals and fauna, raw materials, e.g. coal, ore.

The paper focuses mainly on the raw materials export control, since this group of products implies both economic and non-economic impact on the society.

[274] Article 91 of the EU-Chile FTA.
[275] Article 93 f the EU-Chile FTA.
[276] Article 24(1)(i) of EU-Israel Association Agreement; Article 25(1)(b) of EU-Bosnia Association Agreement; Article 39(1)(b) of EU-Croatia Association Agreement; Article 38(1)(b) of EU-Macedonia Association Agreement; Article 42(1)(b) of EU-Montenegro Association Agreement.
[277] Article 93(3)-(5) of EU-Israel Agreement for the shortage exception only; Article 24(3)-(5) of EU-Israel Association Agreement; Article 25(3)-(5) of EU-Bosnia Association Agreement; Article 39(3)-(5) of EU-Croatia Association Agreement; Article 38(3)-(5)) of EU-Macedonia Association Agreement; Article 42(3)-(5) of EU-Montenegro Association Agreement.

Regarding to raw materials, the export volume of Vietnam is only a small proportion of the total world demand, even only a small proportion of the import volume of any importing country. This means that we can analyze the export control of Vietnam as the case of a small country.

Table 1 - China's import of coal and some raw materials in 2012

Unit: 1000USD

Commodity	Vietnam	World	Vietnam/World (%)
Coal	1,329,101	25,295,093	5.254381613
Iron ore	160,247	90,393,655	0.177276673
Nickel	299	4,823,043	0.006206995
Copper	8,098	16,925,876	0.047841978

Source: UNComtrade Statistics

Table 2 - Japan's import of coal and some raw materials in 2012

Unit: 1000USD

Commodity	Vietnam	World	Vietnam/World (%)
Coal	210,723	29,037,255	0.725698399
Iron ore	N/A	N/A	N/A
Nickel	25	2,622,706	0.000935255
Copper	N/A	N/A	N/A

Source: UNComtrade Statistics

Table 1 illustrates that although China is the biggest importer of Vietnamese coal and raw minerals, the export turnover of Vietnam just accounts for a relatively small proportion of total China's import of the commodities. Let's take coal as an example, the percentage of coal imported from Vietnam compared to the total coal import of China is merely 5.3%. This means that supply of coal and other raw materials from Vietnam account for only tiny share of China's market. The volume of raw materials exported to other importing partners, including Japan (Table 2), Malaysia and India are also make a tiny proportion of those countries' import. Thus, according to economic theory, Vietnam can be considered a "small country" regarding international coal and other raw materials markets (Table 3, 4).

Table 3 - Vietnam's export value of some construction materials to China in 2012

Unit: 1000USD

Commodity	Vietnam	World	Vietnam/World (%)
Sand	3,881	92,614	4.190754269
Limestone	0	729	0.001919265
Wood	773,832	14,937,030	5.180625372

Source: UNComtrade Statistics

Table 4 - Vietnam's export value of some construction materials to Japan in 2012

Unit: 1000USD

Commodity	Vietnam	World	Vietnam/World (%)
Sand	10,771	116,303	9.261154267
Limestone	25,029	44,884	55.76304922
Wood	392,343	11,951,919	3.28267531

Source: UNComtrade Statistics

Since Vietnam is a small country, the supply of Vietnam's export will have no effect on international price or on its term of trade, therefore in this section, we will discuss only about the domestic effects of export control.

Cost-benefit analysis of the trade policy instruments show that any restrictions, in general, will lead to the efficiency loss. In case of export control, in opposite to the case of import restriction, the efficiency losses will be the consumption distortion and production distortion, in which the consumers consume more and the producers produce less than the quantity of the market equilibrium without the restriction.

These distortions occur through the decrease in the price of the export-restricted commodity. Opposite to the case of import restriction, any export restriction will drive down the domestic price, which in turn will lead to more consumption and less production. According to international trade theory, this situation is the misallocation of resources in the country, since the producers loose incentive to produce the export – restricted commodity and produce less than they could (OECD, 2003).

General equilibrium cost – benefit analysis of trade policy based on consumer and producer surplus, however, cannot tell the whole story. Many economists have argued that the concepts of producer and consumer surpluses are not sufficient and sometimes not proper to measure costs and benefits of a nation. The economic argument for this is domestic market failures, meaning that some markets in the country are not doing their job right. Variety of market failures can be named: the labor market is not clearing, the capital market is not

allocating resources efficiently, and so on. In any case of a market failure, an externality occur, which is the difference between private and social benefit or the difference between private and social cost. Externality can be a positive one, in which the social benefit is larger than private benefit, or a negative one, in which social cost is larger than private cost. The argument of market failures is the economic rationale for many interventions of the Governments, including trade restrictions.

There have been many objectives, both economic and non-economic ones - all fall under the heading of market failures adjustment - to justify the application of export control. Among them, popular objectives are : to promote downstream industry; to control price fluctuations; to increase Government revenue; to address social, security and environmental problems. Export control in Vietnam is applied for pursuing such policy objectives.

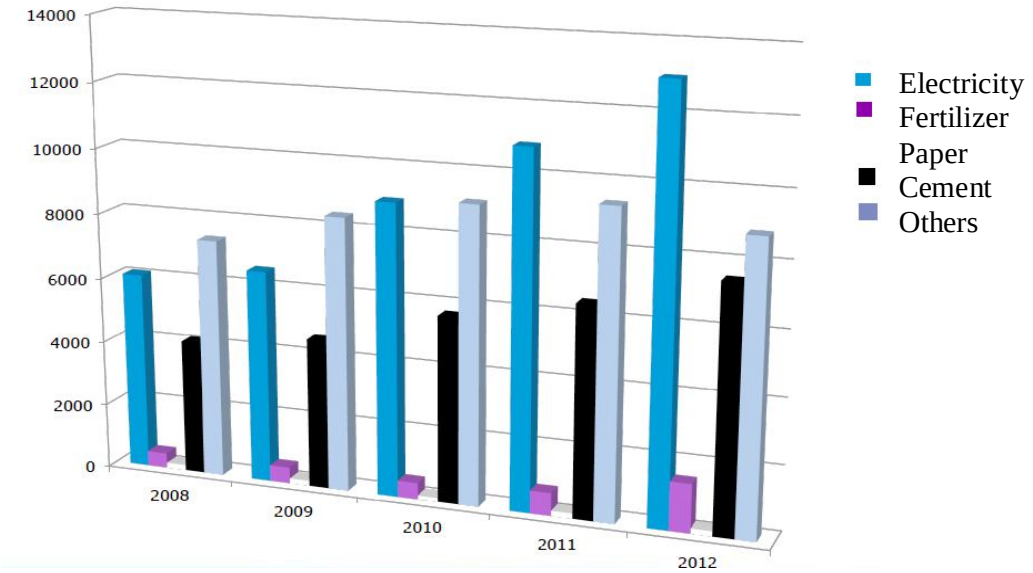
V.2 Assessing the export control in Vietnam

A. Impacts on downstream industry

For many developing countries, exported products are mainly primary products, including agricultural or natural resources based products (Korinek and Kim, 2010). These countries set the task of developing more processed, more value-added industries to seek for more sustainable economic growth. Export restrictions is among frequently used policy to support domestic downstream industries by effectively reducing the price of raw materials used as industrial inputs. These downstream industries are then expected to grow and compete internationally, generating more exports and contributing to national economic growth (Piermartini, 2004).

Similar to other developing countries, it is clear that Vietnam’s Government imposed export control on raw materials with the objective of ensuring the supply for domestic downstream industries. In Vietnam, coal and mineral ores are important inputs for certain downstream industries, such as production of paper, fertilizer, electricity, steel, metal… Therefore, export control is among Vietnam’s Government policies to maintain the reservation of coal and other mineral ores for domestic consumption, especially for industrial usage.

Figure 1 - Domestic coal consumption (2008-2012)



Source: Nguyen Van Bien (2011)

Figure 1 shows that domestic coal consumption in Vietnam are mainly for electricity, fertilizer, paper, cement production. As the domestic production of those commodities has developed, demand for coal has been gradually increasing accordingly. In order to ensure coal input for these industries, export control system of Vietnam was put into place. Government Decree No. 12/2006/ND-CP dated January 23rd 2006 on detailing the implementation of Commercial Law in terms of international goods trading and purchase and sale agency, processing for foreign companies and transit, is the main legal basis for export control in Vietnam.

In terms of export value, coal export of Vietnam has increased over time from USD 1.000 billion in 2007 to nearly USD 1.597 billion in 2011 (Table 3). The decrease of volume and increase of value can be explained by the changes in international coal price and the implication of the changes in Vietnam's coal quality.

Table 5 - Vietnam's export value of coal to major markets

Unit: 1000USD

Market	2007	2008	2009	2010	2011
World	999,779	1,388,459	1,316,558	1,550,252	1,597,555
World (net weight: ton)	32,071,995	19,357,628	24,991,914	19,717,217	17,077,215
China	649,826	742,848	935,843	963,136	1,023,264
Japan	133,812	305,403	145,565	230,037	266,452
Rep. of Korea	39,801	91,402	98,412	142,562	141,426
Philippines	24,648	56,122	9,081	39,000	17,552
India	21,263	54,764	17,478	47,391	22,391
Thailand	17,734	20,330	49,150	41,002	26,902

Malaysia	13,789	27,088	20,664	15,414	34,651

Source: UNComtrade Statistics

Specifically, Table 5 shows that coal export volume of Vietnam has fallen from nearly 21.7 billion tons in 2006 to merely 17 billions tons in 2011, equivalent to a decrease of approximately 21.6%. Coal export volume to almost all foreign markets has the downward trend except for export to South Korea. The fact is an evidence of the impacts of Vietnam's export control on decreasing coal export volume.

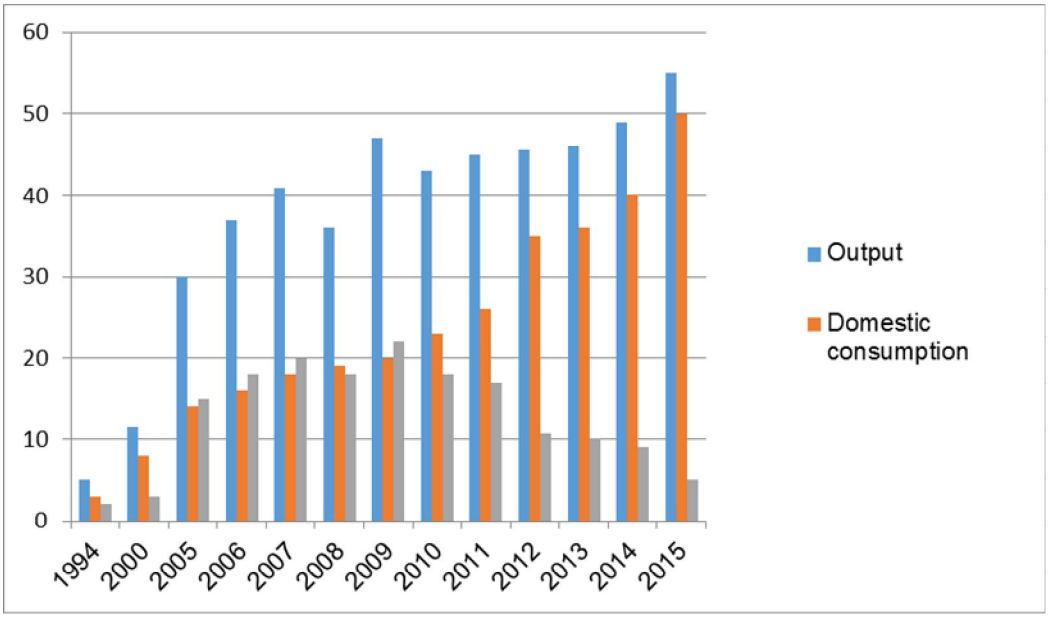
Table 6 - Vietnam's export of some minerals

Commodity		2007	2008	2009	2010	2011
Iron ore	Value (1000 USD)	19,539	41,942	37,967	21,386	53,301
	Volume (Ton)	656,300	1,232,935	620,067	467,580	678,266
Copper	Value (1000 USD)	52,914	25,254	20,473	20,384	N/A
	Volume (Ton)	31,926	14,963	13,006	14,516	N/A

Source: UNComtrade Statistics

The export volume of iron ore has changed annually during 2007-2011, whereas the export value has increased sharply from USD 19.5 million in 2007 to more than USD 53 million in 2011 (Table 6). Copper export has shown the opposite trend, with the decrease in both export volume and export value. This gradual decrease of export volume can be considered another evidence of export control in Vietnam.

Figure 2 - Coal production, consumption and export (1994-2015)
(Unit: million tons)



Source: Nguyen Van Bien (2011)

If we compare the domestic consumption of coal and export of coal, we see that the consumption is increasing dramatically, whereas export declining gradually (Figure 2). Increasing domestic production cannot compensate even faster increase of domestic demand, which leads to even importing from foreign countries.

Apparently, downstream industries in Vietnam, especially electricity industry, are supported by export control of coal. According to theory, export control of coal will lead to lower price of coal for downstream industries. However, the mechanism of impact is quite specific in Vietnam, since price of coal is adjusted by the Government from time to time.

Specifically, according to Vinacomin, the price of coal sold to electricity production is kept under the production cost and has been increased gradually from less than 50% of production price in 2007 to 70%.
Recently, as from April 23rd 2013, the price of coal sold to electricity production has adjusted for an increase to nearly 85% of production cost. Meanwhile, from July 7th 2013, export tariff of all types of coal has risen from 10% to 13%. According to the state-owned Vietnam National Coal and Mineral Industries Group (Vinacomin), this will lead to sharp reduction of its coal export[278].

In general, the control of Government over coal price for electricity production has the objective of supporting electricity production, which is considered the strategic industry of Vietnam. In turn, price of electricity is also under control of Vietnam's Government.

[278] http://www.tax-news.com/news/Vietnam_Hikes_Coal_Export_Tax_61305.html accessed on 30 July, 2013

It is, therefore, difficult to assess the impacts of export restriction on the domestic price of the commodities under restriction since the price is under control of the Government. The final objective of both export restriction and price control is to support the downstream industries.

Economists also discuss about other impacts of export control other than on supporting downstream industries. Export control can success in developing downstream industries, however, other economic costs should also be aware of. The most immediate cost is the redistribution of economic benefits of raw material producers and downstream processors. Short term impact is the net income loss of the raw material producers, which caused by the transfer of their profit to downstream processors. This might in turn lead to the inequality between rural, mountainous and urban areas, since raw materials production concentrate mainly in rural and mountainous areas (Bonarriva, 2009).

In the long run, export control may even not lead to efficient downstream industry since the supported domestic industry can enjoy low price of its inputs and thus has no motivation to innovate or compete with foreign producers. It is also quite hard for the Government to assess whether the objectives of export control policy achieved, and especially, whether the benefits the country gain from export control policy outweighs the costs incurred (OECD, 2009).

B. Control Price Fluctuations

In some cases, governments have also used export controls for avoiding the domestic price fluctuations. By restricting export, domestic price will be kept lower than the sudden increase in the world market, therefore, benefiting domestic consumers and relaxing domestic inflationary pressure.

In other cases, under some international commodity agreements, governments have also restricted export of certain commodity (Bouët and Laborde, 2010) in order to influence the world price, avoiding the sudden drop of world price, which will produce export earnings and government revenues (Mitra and Josling, 2009).

Figure 3 -World coal price

Source: InfoMine.com[279]

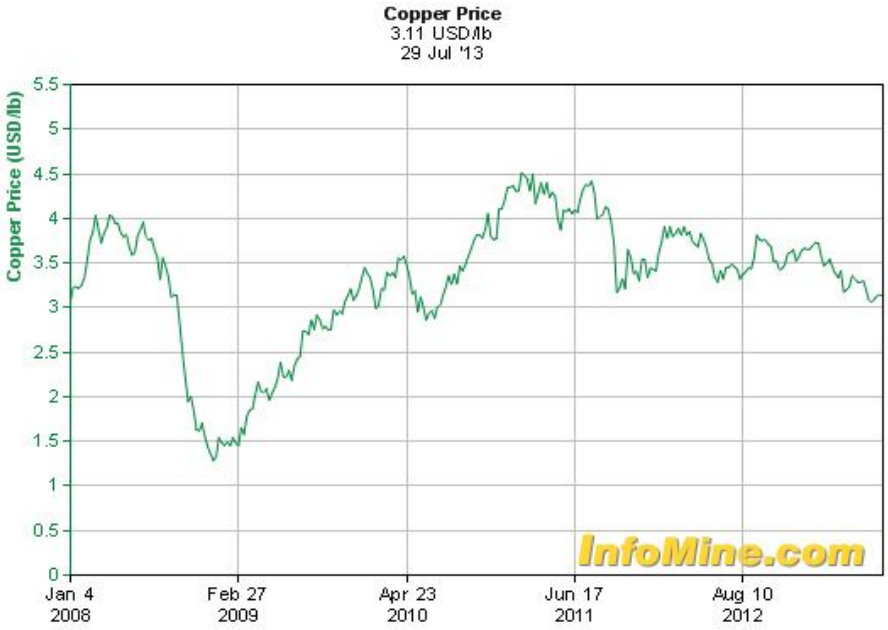
Figure 4 -World iron ore price

Source: InfoMine.com[280]

Figure 5 –World copper price

[279] http://www.infomine.com/investment/metal-prices/coal/5-year/ accessed on 31st July, 2013

[280] http://www.infomine.com/investment/metal-prices/iron-ore-fines/all/ accessed on 31st July, 2013



Source: InfoMine.com[281]

As analyzed in the previous section, to support downstream industries, Vietnam's Government does not only restrict export of some minerals but also control their domestic price. This, at the same time, help keeping stable domestic price, avoiding the effects of sharp fluctuations in the world price.

Figure 3, 4, 5 show the fluctuations of world price of coal, iron ore and cooper. Domestic price of some minerals in Vietnam are under Government control. Specifically, domestic price of coal has been increased gradually according to a roadmap set up by the Government. Since coal is an important input for many downstream industries, any changes in its price may lead to great impacts on the economy. Export restriction and price control of the Government contributes to stable price of coal, which is considered important for relaxing inflationary pressure.

One big problem of this policy is the distortion of the coal market in Vietnam. Both the output and the price are not decided by the market but controlled to great extent by the Government. Market failure can explain some Government intervention but not all. In this case, intervention on both output and price at the same time will probably not lead to optimal outcome, since the impact of one policy might cancel impact of another, wasting resources and leading to even more serious market failure.

C. Government Revenue

[281] http://www.infomine.com/investment/metal-prices/copper/5-year/ accessed on 31st July, 2013

One objective of export tariff in developing countries is raising government revenue, especially foreign exchange for domestic macroeconomic purposes, since export rarify is quite simple to administer and collect (Piermartini, 2004).

In Vietnam, import and export tariff are important sources of foreign Government revenue since import and export turnover of Vietnam is much larger than its GDP. Export tariff revenue comes mainly from exporting of coal, iron ore and some other raw minerals. The problem is that thousands billions VND of export tariff revenues were lost during recent years because of illegal export and smuggling. According to Vietnam Steel Association (VSA), only in 2011 and 2012, Vietnam's government has lost roughly VND 1,700 billions annually because of not sufficient tariff collection for actual export volume of iron ore. In addition, only in 2011, the registration of lower than actual price also create a revenue loss of VND 600 billions in 2011 alone[282].

Low enforcement of laws and regulations is one important reason for smugglings. In addition, export restrictions and price control themself are the main reason motivating smugglings. According to cost-benefit analysis, export restriction will lead to production distortion and consumption distortion. In this case, smuggling even add up to the loss of the whole society since the Government cannot collect the tariff as expected.

D. For security reason

As mentioned in previous section, export control is based on the economic theory of market failure. Any market failure may create externalities in terms of impacts on overall national welfares, including economic, security, social and environmental aspects.

Both developed and developing countries, apply export control for security reason. The commodities under export control for security reason are often very specific, therefore, this kind of control tend not to have considerable impacts on the whole economy (Bonarriva et al., 2009).

In Vietnam, national security consideration is the foremost non-economic rationale for export control. The commodities under this control include weapons, ammunition, explosive materials, military technical equipment, all types of coding machines and cipher software programs used in the field of state secret protection and so on[283]. These commodities can be considered as directly related to the national security. Export control of them are in accordance with the multilateral treaties administered by international organizations such as the United Nations (UN), of which Vietnam is a member. Export control of these commodities has not have much economic impacts since the commodities are very specific and are of very limited use.

[282] http://tuoitre.vn/Kinh-te/555786/xuat-lau-quang-sat-that-thu-1-700-ti-dong-nam.html, accessed on 29th July, 2013
[283] Government Decree No. 12/2006/ND-CP

Vietnam's export control system, however, has not taken into account "dual-use" items, which is not weapons or the like in nature, but can be used for both civil and military purposes. The export control of these "dual-use" items requires extremely advanced system of regulations, management and enforcement.

E. Impact on protecting environment

Protect environment is another non-economic rationale for export control both in developed and developing countries. The items under this type of control typically include wastes and their disposal, endangered species of wild fauna and flora and so on.

In Vietnam, export control is imposed on round timber, sawed timber made of domestic natural forest, rare, wild animal and fauna, flora, rare aquaculture species.

Besides that, ore and coal exploitation in Vietnam is also considered one of the reasons of environment degradation. Export restriction of those commodities, therefore, does not only aim at protecting the downstream industries but also seek to address environmental issues.

Table 7 - Vietnam's export value of sand to major markets

Unit: 1000USD

Market	2007	2008	2009	2010	2011
World	27,518	37,747	79,480	22,937	24,278
Singapore	11,649	16,407	63,982	3,742	499
Rep. of Korea	4,411	7,205	5,817	7,868	9,740
Japan	3,230	3,894	3,092	3,362	3,642
Philippines	1,621	3,867	1,428	835	1,434

Source: UNComtrade Statistics

Table 8 - Vietnam's export value of limestone to major markets

Unit: 1000USD

Market	2007	2008	2009	2010	2011
World	676	2,014	1,197	198	47
India	20	739	4	198	32
Rep. of Korea	657	583	0	361	0

Source: UNComtrade Statistics

Table 9 - Vietnam's export value of wood to major markets

Unit: 1000USD

Market	2007	2008	2009	2010	2011
World	482,038	546,218	511,040	866,613	596,062
China	156,076	136,508	183,372	378,838	596,062
Japan	125,553	166,841	121,883	183,607	278,312
USA	47,398	47,281	38,374	39,294	41,251

Rep. of Korea	29,568	41,803	44,145	79,815	108,664
Other Asia, nes	26,999	39,968	19,788	28,374	32,877
Germany	13,318	21,323	9,015	15,794	19,808
United Kingdom	9,168	8,568	9,015	8,936	9,996

Source: UNComtrade Statistics

The exploring of raw construction materials is also believed to harm the environment in mining areas, especially leading to earth erosion along rivers and streams. Vietnam's Government has decided to ban exporting eight kinds of minerals from November 2012, including: lime stone, additives as raw materials for cement production; building stones of the mines in the provinces in the South East and South West; cube stones; salty sand; construction sand (natural sand); pebbles, gravel types; feldspar (agar) and clay, hill land[284].

Table 7, 8, 9 show Vietnam's export of some construction materials during 2007-2011 period. Export value of sand has decreased slightly, whereas that of limestone has fallen dramatically. Export of wood, however, has the increasing trend over the period.

In general, Vietnam is a natural resource-based economy, with the export of natural resources accounting for 1/10 of the total export turnover. In 2012, Vietnam exported $9.6 billion of minerals, of which the crude oil export alone valued at $8.22 billion and coal $1.23 billion[285].

Vietnam is warned about the "Dutch disease", which is the increase of natural resources exploitation together with a decline in the manufacturing sector. It seems that mining industries in Vietnam, though bring current easy profits, will not ensure sustainable development for the country in the future.

Vietnam's Government, from time to time, adjusted its policies of export control. For instance, in the first five months of 2013, local mineral companies have been licensed to export more than 3 million tons of minerals, mostly unprocessed ores. This is, somehow, deviated from the main direction of its export control policy. The rational for this is the huge unsold inventory reported by mining companies. This sudden action of the Government created short supply of materials for steel makers and was blamed to drain the country's natural resources.

The problem of this policy is the inconsistency of the Government and, again, may lead to even more serious market failure. If the domestic regulations are clear and consistent, then, there is no need of a policy to clear the inventory and the Government can pursue environmental protection policy.

[284] Circular No 04/2012/TT-BXD

[285] http://english.vietnamnet.vn/fms/special-reports/70167/exporting-raw-materials--vietnam-eats-itself.html, accessed on 31st July, 2013

Another concern is the licensing system for mining enterprises. Licensing is believed to be a measure to restrict exploitation of mineral and natural resources. However, a report of the National Assembly's Steering Committee showed that the number of mining enterprises has been increasing dramatically from 427 in 2000 to nearly 2,000 in 2011. At the same time, more than 4,200 licenses for mineral exploitation have been imposed[286]. It is difficult to manage too many licenses and mining enterprises, which may lead to overexploitation of natural resources.

Environmental issues and sustainable development might be good explanation for export restriction. However, restricting export only will not resolve the problem, since export thus accounts for one part of total consumption of natural resources and materials. Domestic regulations play extremely important role in protecting environment in general and preserving rare species, natural resources in particular. Regulations should range from the mining bid to environmental requirements. Clear domestic regulations will directly solve the roots of the problem and is considered by economists as the "first best" policy, not the "second best" one.

F. Social concerns

In Vietnam, people in some areas have been living on mineral exploitation. Natural resources exploitation and export activities does not only provide jobs and incomes for local people, but also bring development opportunities for the local economies. Quang Ninh province, for example, earns its income depending on the coal mining industry. The province of Dak Nong also plan to develop Gia Nghia town into an industry – service city, which will be based wholly on the future development of bauxite industry. Tighter export restrictions for those commodities, therefore, may have adverse effects on the livelihood of a number of people in the mining areas.

V.3 Conclusions

Export restrictions are applied by many countries with economic and non-economic rationale. Over the last decades, the number of countries applying export tax has been increasing, and in 2009 half of the WTO member countries applied export tax (OECD, 2010). Main concern of export tax in particular and export restrictions in general is the impacts on producers in importing countries, on global supply chain and world price. Since Vietnam is a small exporter of minerals, its export control is not expected to have big impacts on foreign producers.

[286] http://english.vietnamnet.vn/fms/special-reports/69981/vietnam-warned-about-dutch-disease--urged-to-stop-raw-minerals.html, accessed on 29th July, 2013

Export policy in Vietnam is designed to reach certain domestic objectives, ranging from environmental protection and raising fiscal revenue to developing downstream industries. It is complicated to assess the achievements of export restrictions policies of Vietnam in terms of those objectives.

There are, however, two concerns regarding the effectiveness of the policy. Firstly, the inconsistency of Government policies lead to mixed results, one policy might cancel the effects of the other, wasting resources and leading to even more serious market failure, which is the rationale for export control. Secondly, export control is not the only and the most effective measure to promote downstream industries as well as to resolve the problem of environment and natural resources exploitation. There are other "first best" policies as named by economists, which can have more direct impacts and can lead to the desired objectives.

VI. General Concluding Remarks

This report had the objective to facilitate the preparation by the Government of Vietnam of its negotiations with the EU regarding export controls: accordingly, it examined the experience of a selected number of Vietnam's commercial partners in export control regulations, on the one hand, and the Vietnam's export control policy, on the other hand, in light of the existing multilateral and bilateral trade agreements.

Both the European Union and Vietnam maintain the three categories of export duties identified in this report, i.e. export controls applied for security reasons, export controls for environmental reasons, and export controls for economic reasons. However, the focus of the negotiations would typically be on export controls aimed at achieving economic objectives. In this respect, the attention of the European negotiators would turn to Vietnam's export controls on various raw materials such as coal and mineral ores (e.g. iron ore, nickel, copper) under Government Decree No. 12/2006/ND-CP as well as different construction materials (e.g. lime stone, construction sand, etc.) recently banned by the Vietnamese Government.

Several of these measures can be considered as "quantitative prohibitions and restrictions" banned by the GATT 1994. Accordingly, the Government of Vietnam should expect the EU to insist upon the outlawing of such measures in the Vietnam-EU FTAs like in Article XI:1 of the GATT. There is no indication the EU would accept a WTO-minus commitment on the use of quantitative export restrictions.

The specific situation of coal should be addressed. The Government of Vietnam applies, among other measures, an export tax of 13 per cent on all types of coal to ensure adequate domestic supply and to support downstream industries. While this tax is consistent with Vietnam's WTO accession package, the EU will likely negotiate with Vietnam WTO-plus

disciplines on export duties as it has done with other FTA partners. Considering the short term industrial policy objectives of such export tax, the challenge for the Vietnamese Government will be to negotiate flexibilities. A first option could be a progressive phasing out of the export tax, given its limited mid and long-term positive effects for Vietnam, as generally described in this report. The EU accepted similar flexibilities for targeted products with countries such as Chile, Colombia and Peru, and Korea. A second option could be a "coal exception", along the lines of the exception for agricultural products included in EU FTAs with neighboring countries such as Albania, Bosnia, Croatia and Macedonia. In this respect, Vietnam would have to reassure the EU on the nil effects of the export tax on the international market price of coal, as Vietnam is a "small" country, and on the limited effects for the EU of Vietnam's export decline of coal.

A second relevant specific issue concerns the inclusion of exception provisions for non-trade policy objectives in the FTA. As indicated above, it is likely the Government of Vietnam will be required to either phase down or eliminate most elements of its export restrictions on raw materials, including the measures it alleges pursue non-trade policy objectives (e.g. the bans on construction materials, or even the restrictions on coal). In this context, it is important to address the exception provisions in the FTA and the provisions mirroring those of the GATT Article XX. The Government of Vietnam may wish to ensure the inclusion not only of GATT Article XX (b) and (g) exceptions, as they normally are present in EU FTAs, but also a GATT Article XI:2 (a) clause, dealing with shortages, and exceptions mirroring Article XX (j) and (i) related to industrial policy and access to critical input material for a downstream industry. As the analysis of the European FTAs showed, the inclusion of these provisions should not be taken for granted, as the EU tends to agree on fewer exceptions in the FTAs than in the WTO agreements.

However, it should be reminded that the assessment of export restrictions under Article XX "environmental" exceptions is not straightforward. The applicability of these exception provisions is subject to several conditions which likely exclude "ambiguous" export restrictions, namely the measures that pursue both environment-related purposes and economic objectives such as support to downstream processing. Export restrictions which are inconsistent with a larger environmental policy would not pass the test. In summary, while, the insertion of the GATT conservation-related exceptions and the "domestic industrial policy" clause may provide some policy "space" for Vietnam to justify its export restrictions in light of non-trade policy concerns, a recommendation would be for the Government of Vietnam to rationalize both its industrial and environmental policies, and clarify the role of its export control regime in both respects./.

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