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Assessing Competition in International Economic Law: A Comparison of 'Market Definition' and 'Comparability'

Nicolas F. Diebold*

The extent to which market participants are in a competitive relationship constitutes a key element both in competition law and in international economic law. Competition law practice has developed refined economic instruments designed to define relevant markets on the basis of demand substitutability, supply substitutability and potential and future competition. In contrast, many fields of international economic law, such as trade and investment protection, fail to assess actual market situations. This article identifies conceptual differences and similarities between the legal instruments of the two fields of law in order to analyse whether competition law theories of defining relevant markets could also be applied in international economic law.

1. Introductory Remarks

The extent to which market actors are in a competitive relationship constitutes a key element both in competition law and in international economic law. Competition law practice has developed refined economic instruments and quantitative tests designed to define the competitive relationship of market actors in relevant markets on the basis of (i) demand substitutability, (ii) supply substitutability and (iii) potential and future competition. In contrast, many fields of international economic law, such as trade and investment protection, limit their analysis to qualitative demand side factors and omit to undertake economic market analyses. The adjudicating bodies of the World Trade Organization (WTO), for instance, apply qualitative criteria such as (i) a product's end-uses in a given market, (ii) consumers' tastes and habits, (iii) the product's properties, nature and quality and (iv) tariff classifications as tools to assess competitive relationships.

Against this background, the question arises whether there are any reasons for which the two fields of law approach the largely identical issue of competitive relationships differently and whether it would be appropriate for adjudicating bodies in international economic law to draw from the rich experiences of competition authorities around the globe. In fact, the two fields of law are linked very closely by pursuing the common objective of ensuring equal conditions of competition between market actors and

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eliminating market distortions. Broadly speaking, international economic law addresses market distortions which are created by state actors and hinder the free flow of goods, services and capital across international borders. Such trade restrictive state measures are typically categorized in border measures (e.g., tariffs and quotas) and internal measures (e.g., discriminatory taxes, standards, or other regulations). Competition policy, in contrast, is predominantly concerned with market distortions created by private party actors, such as cartels, monopolization, or the abuse of dominant positions. In a globalized market economy, the two fields of law may be regarded as complementary, in that domestic competition law prevents the creation of private obstacles to trade whereas international economic law strives to eliminate state created trade obstacles.[1]

This article analyses how the methodologies for assessing competitive relationships differ in international economic law and competition law, whether such differences are justified in spite of the identical underlying principles pertaining to the analysis of competitive relationships or whether the two fields should share a common approach. Section 2 of this article provides the basis for the comparative analysis by illustrating the legal concepts which require assessing the competitive relationship between certain market actors, namely the concept of market power in competition law (section 2.1) and the concept of 'comparability' (also referred to as 'like product' concept) in international economic law (section 2.2). On this basis, sections 3 and 4 compare the methodologies applied in the respective fields of law from a demand side perspective and a supply side perspective. The comparison is focused in particular on the question whether any of these methodologies from competition law are suitable also in the context of international economic law, or whether systemic differences between the two fields of law warrant a different approach with respect to the analysis of competitive relationships.

2. The Legal Relevance of Competitive Relationships

Free market economy relies on the basic concept that different market players compete with one another over resources and the selling of their products in the market. Competition is deemed to contribute to the efficient allocation of resources, the development of new products and services, a greater variety of products and services and, ultimately, to lower prices for consumers. Many states with a free market economy protect competition with antitrust and competition law instruments. However, competition is not only restricted by private party conduct but also by state measures. Governments may attempt to modify the conditions of competition to the detriment of foreign market entities with the aim to protect the domestic industry and domestic service sectors from foreign

[1] On the relationship between competition policy and international economic law see, for example, M. Trebilcock, 'Competition Policy and Trade Policy – Mediating the Interface', *Journal of World Trade* 30, no. 4 (1996): 71, 73–74; A.F. Lowenfeld, *International Economic Law*, 2nd edn (Oxford: Oxford University Press, 2008), 453; D.J. Gifford & M. Matsushita,' Antitrust or Competition Laws Viewed in a Trading Context', in *Fair Trade and Harmonization – Prerequisites for Free Trade?*, vol. II: *Legal Analysis*, ed. Bhagwati/Hudec (Cambridge, MA: MIT Press, 1996), 269, 269–270; but see J.-F. Bellis, 'Anti-Competitive Practices and the WTO', in *New Directions in International Economic Law: Essays in Honour of John H. Jackson*, ed. Bronckers/Quick (The Hague: Kluwer Law International, 2000), 361, 366.

competition. Yet, in order to secure mutual access to the respective markets, states enter into international agreements regulating international trade in goods and services as well as the protection of intellectual property rights and foreign investments. Under these international agreements, states undertake not to distort the market to the detriment of foreign competitors.

Since competition law and international economic law both protect competition and undistorted markets, it is evident that the assessment of competitive relationships between different market actors plays a fundamental role in the legal analysis. The following sections 2.1 and 2.2 thus illustrate the legal principles in the respective fields of law, which require assessing the competitive relationship as part of the determination of the facts.

2.1. Market power and market definition in competition law

Competition policy is usually implemented by means of different legal instruments, in particular, (i) the prohibition of agreements which restrict competition – first and foremost cartels – (ii) the prohibition of certain forms of single firm conduct and (iii) the prohibition of mergers which would allow the merged entity to restrain competition either in coordination with its competitors (coordinated effects) or unilaterally (unilateral effects). Even though the legal implementation of these instruments varies between different jurisdictions, the definition of the relevant market almost always constitutes a core element in the legal analysis.

The prohibition of unlawful single firm conduct – such as monopolization in US antitrust law or the abuse of a dominant position in European Union (EU) competition law – as well as merger control depends strongly on the degree of market power held by the companies under scrutiny. The question of market power in turn is analysed on the basis of different indicators, such as monopoly pricing, profit margins or conduct; however, the most important parameter constitutes the company's market share in a relevant market. For a proper analysis of market power, it is thus necessary to define the relevant product and geographical markets which are affected by the single firm conduct under scrutiny.

The relevant market is similarly important for the analysis of agreements which restrict competition. Under section 1 of the Sherman Act,[2] US courts analyse restraints of trade either under the rule of per se illegality or the rule of reason. Certain forms of agreements – such as price fixing – are considered as per se illegal.[3] All other agreements need to be analysed under the rule of reason, which requires examining the anticompetitive impact of the agreement. Such an analysis of anticompetitive effects generally requires the definition of the relevant market.[4] Similarly, EU courts define a relevant

[2] Sherman Antitrust Act, 2 Jul. 1890, Ch. 647, 26 Stat. 209, 15 U.S.C. ss 1–7; for merger control see Clayton Antitrust Act, 15 Oct. 1914, Ch. 323, 38 Stat. 730, 15 U.S.C. ss 12–27, 29 U.S.C. ss 52–53.

[3] *Broadcast Music v. CBS*, 441 US 1, 19–20, 1979.

[4] *Continental T.V. v. GTE Sylvania*, 433 US 36, 1977.

market for purposes of Article 101 Treaty on the Functioning of the European Union (TFEU; ex Article 81 TEC)[5] in order to determine whether an agreement has an appreciable impact on competition under the *de minimis* doctrine[6] or in order to assess specific aspects of a cartel, such as its scope or the extent of individual participation.[7]

2.2. Non-discrimination and comparator clauses in international economic law

The principle of non-discrimination constitutes a corner stone in international economic law. Obligations prohibiting discriminatory treatment take two different forms, namely most-favoured-nation (MFN) treatment and national treatment. MFN treatment provides that a contracting party shall not discriminate between its different trading partners. In other words, favourable trading conditions with regard to goods, services, investments or the protection of intellectual property rights granted to one trading partner must be accorded at the same time to all other contracting parties. National treatment, in contrast, obliges a contracting party not to treat foreign market participants less favourably than domestic market participants.

The prohibition of 'less favourable treatment' constitutes the core element of a non-discrimination obligation. However, despite its importance, the term or standard is generally not defined in the international agreements. As a rare exception, the General Agreement on Trade in Services (GATS) under the WTO[8] states in its national treatment provision that 'different treatment shall be considered to be less favourable if it modifies the conditions of competition' (Article XVII:3 GATS). It appears that this wording was drafted on the basis of prior panel reports pertaining to the General Agreement on Tariffs and Trade of 1947 (GATT 1947), which developed the principle of conditions of competition under the analogous provision of Article III GATT.[9] The WTO Appellate Body later endorsed previous GATT 1947 jurisprudence on national treatment, confirming that 'less favourable treatment' requires an examination of 'whether a measure modifies

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[5] Treaty on the Functioning of the European Union (TFEU; consolidated version, as amended by the Treaty of Lisbon), OJ 2008 C 115/47; formerly Treaty establishing the European Community (TEC), consolidated version, as amended by the Treaty of Amsterdam, OJ 2002 C 325/33.

[6] European Commission, Commission Notice on agreements of minor importance, which do not appreciably restrict competition under Art. 81(1) of the Treaty establishing the European Community (*de minimis*), OJ 2001 C 368/13; Case T-25/99 *Roberts* [2001] ECR II-1881, para. 26; Case 234/89 *Delimitis* [1991] ECR I-935, paras 15–16.

[7] Case T-61/99 *Adriatica di Navigazione* [2003] ECR II-5349, para. 30.

[8] WTO, Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Marrakesh, 15 Apr. 1994, 1867 U.N.T.S. 14; 33 I.L.M. 1143 (1994); General Agreement on Tariffs and Trade 1994 (GATT), 15 Apr. 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187; 33 I.L.M. 1153 (1994); General Agreement on Trade in Services (GATS), 15 Apr. 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 33 I.L.M. 1168 (1994).

[9] The first report to adopt this standard was GATT Panel Report, *Italian Discrimination Against Imported Agricultural Machinery*, L/833, adopted 23 Oct. 1958, BISD 7S/60, para. 12; see also W. Zdouc, *Legal Problems Arising under the General Agreement on Trade in Services - Comparative Analysis of GATS and GATT* (2002), 172–173; F. Ortino, 'The Principle of Non-discrimination and Its Exceptions in GATS', in *The World Trade Organization and Trade in Services*, ed. Alexander/Andenas (Leiden: Martinus Nijhoff Publishers, 2008), 173, 175.

the conditions of competition in the relevant market to the detriment of imported products'.[10]

The principle of competitive relationship is embodied in non-discrimination obligations by means of a comparator clause, which limits the reach of non-discrimination obligations to treatment taking place between 'comparable' market actors. The terminology of comparator clauses differs considerably between different treaties of international economic law. For instance, the national treatment obligations in Articles III GATT and XVII GATS provide that Members shall not discriminate – by means of taxes or internal regulations – between 'like products', 'directly competitive or substitutable products' or 'like services and service suppliers' on the basis of origin. Similarly, the national treatment obligation concerning taxation in EU law refers to 'similar products' and 'other products' in Article 110 TFEU (ex Article 90 TEC). The North American Free Trade Association (NAFTA)[11] and certain bilateral investment treaties[12] (BITs) apply the concept of 'like circumstances', while other BITs use the concept of 'same circumstances', 'like situations', 'comparable situations' or 'similar situations'.[13] In spite of the differences in terminology, it is argued here that non-discrimination obligations in international economic law only outlaw differential treatment between competitors and, consequently, that the comparator clause always requires an assessment of the competitive relationship between the market participants which are subject to differential treatment.[14]

3. The Demand Side of Competitive Relationships

The first and most important competitive constraint taken into account for the analysis of whether there is a competitive relationship between certain products or services is demand substitutability or 'reasonable interchangeability'. More generally, the pertinent question is whether the products or services in question are viewed as interchangeable from the demand side in the market. Competition authorities developed numerous qualitative and quantitative tests for the analysis of demand side substitution (section 3.1). In contrast, adjudicating bodies in international economic law so far even omitted to explicitly acknowledge demand side substitution as a main instrument for the analysis of

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[10] Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 Jan. 2001, paras 137–138.

[11] North American Free Trade Agreement, 17 Dec. 1992, US-Can.-Mex., in force 1 Jan. 1994, 107 Stat. 2057; 32 I.L.M. 605 (1993).

[12] For a BITs database see, for example, <www.unctad.org/Templates/Page.asp?intItemID=2344&lang=1>.

[13] Articles 3 and 4 US model-BIT, 2004 (like circumstances), available at: <www.state.gov/documents/organization/117601.pdf>; Art. 3:1 UK-Belize BIT, 1982 (same circumstances); Art. II:1 US-Honduras BIT, 1995 and Art. II:2 US-Senegal BIT, 1983 (like situations); Art. 4:1 China-Iran BIT, 2000 (comparable situations); Art. 3:1 Ethiopia-Turkey, 2000 (similar situations); Art. 7:1b Framework Agreement on the ASEAN Investment Area, 1998 (likeness); for an overview of comparator clauses in BITs, see also A. Newcombe & L. Paradell, *Law and Practice of Investment Treaties – Standards of Treatment* (Austin, TX: Wolters Kluwer Law and Business, 2009), 160; UNCTAD, *National Treatment* (New York, NY/Geneva: United Nations Publication, 1999), 28 ff., available at: <www.unctad.org/Templates/webflyer.asp?docid=191&intItemID=2322&lang=1>.

[14] See below s. 4.2; however, due to this open and unspecific terminology, it has not always been evident that comparator clauses in non-discrimination obligations must be interpreted in the light of competitive relationships. For instance, early GATT 1947 jurisprudence refrained from explicitly recognizing that the concept of 'like products' refers to the competitive relationship, see below n. 31.

competitive relationships; they mostly apply qualitative criteria, some of which implicitly relate to demand substitutability (section 3.2). On this basis, section 3.3 identifies the conceptual differences between competition policy and international economic law which partly explain the uneven approaches to the issue of competition.

3.1. Sophisticated demand side analysis of relevant markets

Considering that the economic analysis of markets constitutes a key function in competition law, it is not surprising that the theories and methodologies for the definition of a relevant market have been subject to constant evolution. In the 1950s, economists and lawyers in the United States developed the concept of a 'relevant market', which was designed to serve as a tool for the assessment of market power. Lower federal courts implemented this approach in their antitrust jurisprudence, and eventually the US Supreme Court endorsed it in the famous *Cellophane* case on illegal monopolization.[15] The federal antitrust agencies in the United States – namely the Antitrust Division of the Department of Justice and the Federal Trade Commission – further refined the initial concepts of market definition in their respective guidelines and publications on merger control and unilateral conduct.[16] Even though these guidelines are not binding for courts, they appropriately illustrate the current state of antitrust practice.

The EU implemented similar concepts in its own competition policy. The European Commission adopted the Market Definition Notice in 1997 in order to improve the transparency and predictability for legal practitioners and businesses in regard to the market analysis of competition law.[17] The Notice was developed on the basis of previous European Court of Justice (ECJ) jurisprudence and 'tries to set out in coherent, readable fashion the economic principles on which the Commission bases its approach to the definition of relevant markets'.[18] The Market Definition Notice specifies in paragraph 1 that it provides not only guidance for the definition of the relevant market in the context of merger control, but for EU competition law in general, including the examination of dominant positions of Article 102 TFEU (ex Article 82 TEC) and of the impact of cartels pursuant to Article 101 TFEU.[19]

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[15] *US v. E.I. du Pont de Nemours & Co. (Cellophane)*, 351 US 377, 395 (1956); G.J. Werden, 'The History of Antitrust Market Delineation', *Marquette Law Review* 76 (1992): 123, 130 ff.

[16] Department of Justice, 'Merger Enforcement Guidelines' of 1968, 1982, 1984, 1992 and 1997, all available at: <www.usdoj.gov/atr/hmerger.htm> ('US Merger Guidelines'); Department of Justice and Federal Trade Commission, 'Commentary on the Horizontal Merger Guidelines' (2006), available at: <www.usdoj.gov/atr/public/guidelines/215247.htm> ('US Merger Guidelines Commentary'); Department of Justice, 'Competition and Monopoly: Single-Firm Conduct under Section 2 of the Sherman Act' (2008), available at: <www.usdoj.gov/atr/public/reports/236681.htm> ('US Competition and Monopoly Report').

[17] European Commission, Commission Notice on the definition of relevant market for the purpose of Community competition law, OJ 1997 C 372/5 ('EC Market Definition Notice').

[18] European Commission, XXVIIth Report on competition policy (1997), available at: <http://ec.europa.eu/comm/competition/annual_reports/rap97_en.html> ('EC Report on Competition Policy').

[19] European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ 2004 C 31/5 ('EC Merger Guidelines'); Council Regulation (EC) No. 139/2004 of 20 Jan. 2004 on the control of concentrations between undertakings, OJ 2004 L 24/1 ('EC Merger Regulation').

The relevant market concept was originally based on a test of 'reasonable interchangeability by consumers',[20] which to date constitutes the core element of the market analysis. The Market Definition Notice defines the relevant market as comprising 'all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use'.[21] This approach reflects the economic theory of demand substitutability.[22] Courts and competition authorities resort to different qualitative and quantitative tests designed to assess demand substitutability.

Among the qualitative criteria, it may be distinguished between objective and subjective elements. The objective theory of functional interchangeability relies primarily on physical characteristics and end-uses of the products in question.[23] However, since criteria other than physical characteristics and end-uses may strongly affect consumer behaviour, this approach does not necessarily reflect the actual market situation. At best it might be used as a first indication of possible substitutes. The subjective theory of functional interchangeability attempts to correct the shortcomings of the objective approach by relying directly on views of consumers, customers and competitors.[24] The US Merger Guidelines Commentary for instance states that '[c]ustomers typically are the best source, and in some cases they may be the only source, of critical information on the factors that govern their ability and willingness to substitute in the event of a price increase'.[25] In comparison, it is interesting to note that German competition practice does not consider the views of actual consumers, but only of the informed 'model' or 'average' consumer.[26] This approach requires developing an abstract ideal-type consumer.

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[20] For the United States, for example, *Cellophane*, above n. 15, 395; *Times-Picayune Publishing Co. v. US*, 345 US 594, 612 n. 31 (1953); for the EC, for example, Case 6/72 *Continental Can* [1973] ECR 215, para. 32; Case T-340/03, *France Télécom* [2007] ECR II-107, para. 78; in literature, for example, R. Pitofsky, 'New Definitions of Relevant Market and the Assault on Antitrust', *Columbia Law Review* 90 (1990): 1805, 1813–1817; Werden, above n. 15, at 139 ff.

[21] EC Market Definition Notice, above n. 17, para. 7.

[22] For a comprehensive discussion of demand substitutability see, for example, Monopolkommission, *Ökonomische Kriterien für die Rechtsanwendung: Hauptgutachten 1982/1983* (1984), 198–199; D. Hildebrand, *The Role of Economic Analysis in the EC Competition Rules*, 2nd edn (The Hague: Kluwer Law International, 2002), 183 ff., in particular 289, 332; C. Mueller, *Abschied vom Bedarfsmarktkonzept bei der Marktabgrenzung?* (Baden-Baden, Nomos, 2007), 54 ff.; J.F. Baur, 'Der relevante Markt', in *Recht und Wirtschaft heute, Festgabe Max Kummer*, ed. Merz/Schluep (Berne: Stämpfli, 1980), 293, passim; for an economic analysis, W.M. Landes & R.A. Posner, 'Market Power in Antitrust Cases', *Harvard Law Review* 94 (1981): 937, 939 ff.

[23] For the United States, see *Cellophane*, above n. 15, 411 (physical characteristics of flexible wrappings); for the EC see Commission Case COMP/M.1672 *Volvo* OJ 2001 L143/74, paras 14 ff. (trucks above and below 16 tonnes); in literature, for example, A. Lindsay & N. Scola, 'Market Definition', in *Bellamy & Child European Community Law of Competition*, 6th edn, ed. Roth/Rose (Oxford: Oxford University Press, 2008), 239, 259; J.L. Cárdenas Tomažič, *Rolle, Kriterien und Methodik der kartellrechtlichen Marktabgrenzung: eine juristische und ökonomische Analyse* (Karlsruhe: Universitätsverlag Karlsruhe, 2005), 35–36; K. Neveling, *Die sachliche Marktabgrenzung bei der Fusionskontrolle im deutschen und europäischen Recht* (Tuebingen: Medien Verlag Köhler, 2003), 157.

[24] For the EC see, for example, EC Market Definition Notice, above n. 17, para. 41; Case T-7/93 *Langnese* [1995] ECR II-1533, para. 60; Commission Case IV/M.1524 *Airtours* OJ 2000 L93/1, para. 12: 'a somewhat narrower approach is considered to be justified in the present case in regard to distinguishing separate markets for package holidays to long-haul and short-haul destinations' (rev'd on other grounds); for the United States, see, for example, *Fineman v. Armstrong World Industries*, 980 F 2d 171 (3rd Cir. 1992); in general Cárdenas Tomažič, above n. 23, at 37.

[25] US Merger Guidelines Commentary, above n. 16, at 9.

[26] Bundesgerichtshof, Beschluss *Valium* of 16.12.1976, KVR 2/76, WuW/E BGH 1445, 1447; Mueller, above n. 22, at 73; Cárdenas Tomažič, above n. 23, at 49–51; critically O. Sandrock, 'Grundprobleme der sachlichen Marktabgrenzung', in *Recht und Wirtschaft heute, Festgabe Max Kummer*, ed. Merz/Schluep (Berne: Stämpfli, 1980), 449, 470; S. Bishop & M. Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement* (London: Sweet & Maxwell, 2002), 129.

In addition to these qualitative approaches, US antitrust practice developed the quantitative 'small but significant non-transitory increase in price' (SSNIP) test designed to measure cross-price elasticity as an indicator for demand substitutability. The European Commission applies the essentially identical 'hypothetical monopolist test' for purposes of EU competition law.[27] These tests consist of a 'speculative experiment' to examine whether a small but significant price increase of product A would induce a certain number of customers to change to product B, such that the price increase becomes unprofitable. The assumption typically consists of a 5–10% increase in price, depending on the industry and circumstances. If, as a direct result of this hypothetical price increase, the number of customers switching to product B has the effect that the price increase becomes unprofitable for the producer of A, then product B is part of the relevant market. The same exercise is then continued on the basis of product B in comparison to product C and so on, until a price increase does not yield any more substitutes. The SSNIP test has become an established methodology, which is used by antitrust authorities of different jurisdictions around the globe.[28]

While demand substitutability constitutes the main pillar of the relevant market analysis,[29] competition authorities and courts have further refined the methodologies, introducing *inter alia* considerations of supply substitutability, ease of entry as well as potential and future competition. These theories will be discussed in detail under section 5 of this article.

3.2. Implicit demand side analysis of comparator clauses

3.2.1. *Assessment of 'Likeness' in WTO Law*

The adjudicating bodies of the GATT 1947 and, subsequently, the WTO developed the most representative body of jurisprudence interpreting and applying the comparator clause, in the WTO context generally referred to as the 'likeness' concept. The main approach for the analysis of 'like products' under GATT 1947 was developed by the Working Party Report *Border Tax Adjustments* which designated the (i) product's end-uses in a given market, (ii) consumers' tastes and habits and (iii) product's properties, nature and quality as the main criteria.[30] In addition to these three criteria, GATT 1947 practice recognized the uniform classification in tariff nomenclatures as a fourth criterion. The assessment of qualitative criteria such as consumer preferences and end-uses may be sufficient to reflect the competitive relationship between products to some degree. However, the *Border Tax Adjustments* framework as such and particularly its implementation by the GATT panels was by no means adequate for an analysis of the actual market situation. In

[27] EC Market Definition Notice, above n. 17, paras 15 ff.; D. Hildebrand, 'Using Conjoint Analysis for Market Definition: Application of Modern Market Research Tools to Implement the Hypothetical Monopolist Test', *World Competition* 29 (2006): 315, 317.

[28] Bishop/Walker, above n. 26, at 88.

[29] EC Market Definition Notice, above n. 17, paras 13 f.

[30] Working Party Report, *Border Tax Adjustments*, L/3464, adopted 2 Dec. 1970, para. 18.

fact, many GATT panels analysed 'like products' by generally ignoring or even rejecting the relevance of competition.[31] Some panels found products to be 'unlike' merely on the basis that they were not listed in the same tariff classifications or because the products differed in terms of their physical characteristics, disregarding entirely whether or not the products were actually competing with one another.[32]

With the creation of the WTO, the adjudicating bodies recognized that the GATT rule on national treatment is not only designed to prevent the undermining of tariff commitments through internal taxes and regulations but also more generally to secure equal conditions of competition and competitive opportunities for foreign market participants. This broader purpose is even more pertinent in GATS rules on national treatment, considering that international trade in services is not subject to tariffs in the first place. Consequently, the adjudicating bodies endorsed an economic interpretation of 'likeness' and recognized that both standards of comparison – whether 'like' or 'directly competitive or substitutable' – require determining the extent to which the products compete in a given market place. In the leading case *EC – Asbestos* pertaining to the issue of 'like products', the Appellate Body found that regardless of whether or not the *Border Tax Adjustments* framework is applied, a proper assessment of 'like products' requires consideration of all relevant evidence 'which indicates whether, and to what extent, the products involved are – or could be – in a competitive relationship in the marketplace'.[33] However, the Appellate Body at the same time emphasized that all four elements have an independent value[34]; hence, two products could theoretically still be qualified as 'unlike' due to physical differences, different tariff classifications or different end-uses. Also, the Appellate Body so far still avoided explicitly acknowledging that the competitive relationship needs to be assessed based on demand substitutability for purposes of the 'likeness' test.

While the *Border Tax Adjustments* framework thus still remains the basic instrument for the analysis of 'likeness', some panels have moved further and applied additional criteria, such as cross-elasticity of demand, marketing studies, price differences, channels of distribution, points of sale, statements by national authorities, evidence from third markets and health risks.[35] Nonetheless, the average analysis of 'likeness' undertaken by WTO panels and the Appellate Body is by no means comparable to the accuracy of

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[31] Note that in case of discriminatory tariff measures subject to MFN it may in some circumstances be appropriate to assess 'likeness' primarily based on tariff classifications rather than competitive relationships in order to protect mutually negotiated tariff concessions, see R.E. Hudec, '"Like Product": The Differences in Meaning in GATT Articles I and III', in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law: Past, Present, and Future*, ed. Cottier/Mavroidis (Ann Arbor, MI: University of Michigan Press, 2000), 101, 108.

[32] Working Party Report, *Australia – Ammonium Sulphate*, GATT/CP.4/39, adopted 3 Apr. 1950, paras 8–9 (Panel concluded purely on the basis of differences in tariff classifications that ammonium sulphate fertilizer is not 'like' nitrate fertilizer for purposes of Art. III:4 GATT); see also GATT Panel Report, *Germany – Sardines*, G/26, adopted 31 Oct. 1952, para. 13; GATT Panel Report, *Japan – SPF Dimension Lumber*, L/6470, adopted 19 Jul. 1989, paras 5.13 ff.

[33] Appellate Body Report, *EC – Asbestos*, WT/DS135/AB/R, adopted 5 Apr. 2001, para. 103.

[34] *Ibid*., para. 139.

[35] See, for example, Appellate Body Report, *Japan – Alcoholic Beverages II*, WT/DS76/AB/R, adopted 19 Mar. 1999; Panel Report, *Korea – Alcoholic Beverages*, WT/DS75/R, WT/DS84/R, adopted 17 Feb. 1999; Panel Report, *Mexico – Taxes on Soft Drinks*, WT/DS308/R, adopted 24 Mar. 2006; A. Emch, 'Same Same but Different? Fiscal Discrimination in WTO Law and EU Law: What are "Like" Products?', *Legal Issues of Econ Integration* 32 (2005): 369, passim.

quantitative and qualitative economic tests applied by national competition authorities. One way of focusing the *Border Tax Adjustments* framework more specifically on demand substitutability would be to consider the element of consumers' tastes and habits as the decisive criterion, analysing whether consumers regard the products as interchangeable in view of the physical characteristics, objective end-uses and other criteria.[36] Following such an approach, it would no longer be possible to reject the 'likeness' of products simply due to differences in their physical characteristics or based on different tariff classifications.

3.2.2. *Assessment of 'Similar Products' in EU Law*

The law of the EU constitutes another domain which lends itself to a comparison of 'comparability' and 'market definition', considering that the TFEU contains both competition law rules (Articles 101 ff TFEU) and the principle of national treatment prohibiting discriminatory taxation of 'similar products' (Article 110 TFEU; ex Article 90 TEC). Since these provisions are interpreted and applied by the same authorities and courts, one could have expected that they would develop a coherent methodology for the assessment of competitive relationships in the respective fields.

While early ECJ jurisprudence relied on purely formal criteria for the assessment of 'similar products',[37] the more recent jurisprudence recognized the competitive relationship as decisive element. At least in two cases the parties even proposed that the criteria applied by the ECJ for purposes of competition law, in particular cross-elasticity, should also be relevant for Article 110 TFEU.[38] Interestingly, however, the ECJ refused to follow these arguments. In the area of competition policy and market definition, the EU courts and the European Commission resort predominantly to the economic tests. For purposes of national treatment, they follow surprisingly closely the methodologies developed by GATT/WTO jurisprudence.

3.2.3. *Assessment of 'Comparability' in Investment Protection*

In the practice on investment protection pertaining to NAFTA and BITs, it is difficult to discern a common approach to the interpretation of comparator clauses and the assessment of competitive relationships. Even the jurisprudence relating exclusively to non-discrimination obligations under NAFTA Chapter 11 on investment protection is not entirely consistent. Most arbitral tribunals understand the comparator clause as consisting of an economic standard and a subjective exception. Under the economic standard, the main criterion is whether investors or investments are in the 'same sector', including

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[36] Emch, above n. 35, passim; E. Vranes, *Trade and the Environment: Fundamental Issues in International Law, WTO Law, and Legal Theory* (Oxford: Oxford University Press, 2009), 194–195.

[37] Case 27/67 *Fink-Frucht* [1968] ECR 223.

[38] Case 171/78 *Kingdom of Denmark* [1980] ECR 447, para. 28; Opinion of the Advocate General Vilaça, Case 356/85 *Kingdom of Belgium* [1987] ECR 3299, para. 122.

both economic and business sectors.[39] While some tribunals omit to explicitly identify the competitive relationship as the decisive factor to delimit a 'sector', others base their analysis more specifically on competition. However, similar to the 'likeness' concept in WTO law, demand substitutability has not yet been acknowledged as the key factor for the analysis of 'like circumstances'. In addition to the economic standard, the concept of 'like circumstances' is usually interpreted as containing a subjective exception. Once the claimant has established that its investor or investment is treated less favourably than a domestic competitor, the respondent may justify its measure under the subjective exception by showing that the differential treatment does not take place in like circumstances. In other words, the circumstances of the application of the measure may justify the difference in treatment if the measure pursues a legitimate policy objective.

With regard to BIT practice, it appears that it is not yet firmly established that the comparator clause is always related to competitive relationships. At least one arbitral tribunal concluded that even differential treatment between non-competing market participants may violate a national treatment obligation.[40] As the author has argued elsewhere, such an interpretation of the comparator clause stretches the non-discrimination principle beyond its original purpose. Measures restricting trade or foreign investment by placing an unnecessarily high burden on foreign market participants without, however, providing a competitive advantage to domestic market players should not be addressed under a national treatment obligation, but under the more integrative principles such as 'necessity', 'non-restriction' or 'legitimate expectations'.[41] Consequently, a proper analysis of the comparator clause always requires assessing the competitive relationship, whether the clause additionally contains a subjective exception depends on the structure and context of the individual agreement.

3.3. A more economic approach in international economic law?

In the light of these considerations, it is possible to conclude that demand substitutability is clearly the main instrument for the assessment of competitive relationships. Competition law practice has developed highly refined qualitative and quantitative economic tests – such as cross-price elasticity and the SSNIP test – designed to assess competitive relationships of products and services. At the same time, it is relatively safe to say that demand substitutability is slowly becoming the key element for purposes of the 'comparator clause' in international economic law, albeit only implicitly. Most of the adjudicating bodies called upon to rule on national treatment claims recognize that the

[39] *S.D. Myers v. Canada*, para. 244; *Pope & Talbot v. Canada*, para. 78; *Feldman v. Mexico*, para. 171; *ADM v. Mexico*, paras 198 ff.; *Corn Products v. Mexico*, paras 121–122; but see *UPS v. Canada*, para. 102 (customs measure) and paras 173 ff. (Publications Assistance Program); *Methanex v. US*, part IV(B), paras 30 ff., in particular para. 37; all available at: <www.naftaclaims.com>.

[40] LCIA Arbitral Tribunal, Arbitral Award, *Occidental Exploration and Production Company v. Ecuador*, LCIA Case UN3467, 1 Jul. 2004.

[41] N.F. Diebold, 'Non-discrimination and the Pillars of International Economic Law – Comparative Analysis and Building Coherency', *Society of International Economic Law (SIEL), Second Biennial Global Conference, University of Barcelona, July 8–10, 2010* (2010), 16–18.

'comparator clause' refers to the competitive relationship between the comparators. However, neither the WTO Appellate Body, the ECJ nor investment tribunals explicitly resort to the economic theories designed to assess demand substitutability. They mainly rely on qualitative and objective criteria such as physical characteristics, end-uses, consumers' tastes and habits and tariff classifications. Moreover, these criteria are not assessed based on actual market studies, but mainly on the submissions of the parties to the dispute. In comparison, competition authorities conduct extensive market research by sending out questionnaires to the actors in a market under investigation. Such information on the actual market is usually not sufficiently taken into consideration in the trade context.

Against this background, the question arises whether it would not be appropriate for the analysis of discriminatory treatment under international economic law to adopt economic tests similar to the ones developed by national competition authorities.[42] An answer to this question requires considering the conceptual differences and similarities between market definition and 'comparator clauses'.

The diverging developments may firstly be explained with procedural rather than substantive differences. In competition law, the concerned companies are directly a party to the proceedings. Competition authorities have the authority to conduct investigations against the companies allegedly engaged in anticompetitive conduct and to request or even seize internal market research studies, consumer surveys or data from consumer purchasing patterns collected by the parties and their competitors for the purpose of their internal price policies and marketing actions. Conversely, under WTO proceedings, the governments of the Members represent the interests of the private companies that are affected by a state measure. Consequently, it is more difficult for the adjudicating bodies to obtain the relevant evidence on demand substitutability. At the same time, the WTO and in particular ad hoc investment tribunals may not currently have the necessary resources, experience and know-how to conduct a refined market analysis.

In addition to these pragmatic explanations, there are also conceptual differences between market definition in competition policy and the comparator clause in international economic law that need to be taken into account. The analysis of markets for purposes of single firm behaviour is directed at past and current market situations, whereas

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[42] P.C. Mavroidis, '"Like Products": Some Thoughts at the Positive and Normative Level', in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law: Past, Present, and Future*, ed. Cottier/Mavroidis (Ann Arbor, MI: University of Michigan Press, 2000), 125, 131; W.-M. Choi, 'Like Products' in *International Trade Law – Towards a Consistent GATT/WTO Jurisprudence* (Oxford: Oxford University Press, 2003), 33; J.B. Goco, 'Non-discrimination, "Likeness", and Market Definition in World Trade Organization Jurisprudence', *Journal of World Trade* 40 (2006): 315, 329 ff.; H. Horn & P.C. Mavroidis, 'Still Hazy after All These Years: The Interpretation of National Treatment in the GATT/WTO Case Law on Tax Discrimination', *European Journal of International Law* 15 (2004): 39, 66; J.A. Marchetti & P.C. Mavroidis, 'What Are the Main Challenges for the GATS Framework? Don't Talk About Revolution', *European Business Organization Law Review* 5 (2004): 511, 532–533; D.J. Neven, 'The Economic Evaluation of Protection under Art. III', in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law: Past, Present, and Future*, ed. Cottier/Mavroidis (Ann Arbor, MI: University of Michigan Press, 2000), 331, 332; D.J. Neven, 'How Should "Protection" Be Evaluated in Article III GATT Disputes?', *European Journal of Political Economy* 17 (2001): 421, 437; R. Quick & C. Lau, 'Environmentally Motivated Tax Distinctions and WTO Law – The European Commission's Green Paper on Integrated Product Policy in Light of the "Like Product" and "PPM" Debates', *Journal of International Economic Law* 6 (2003): 419, 433; M. Bronckers & N. McNelis, 'Rethinking the "Like Product" Definition in GATT 1994', in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law: Past, Present, and Future*, ed. Cottier/Mavroidis (The Hague: Kluwer Law International, 2000), 345, 358.

future market developments are important in the case of merger control. In comparison, market analysis in international economic law is also aimed at the analysis of current competitive relationships. Hence, market definition for purposes of single firm conduct and non-discrimination share similar parameters.

Moreover, an interesting aspect to highlight is the diverging effect of the quantitative SSNIP test in the areas of competition law and international economic law. In the case of single firm conduct, the market under examination may be distorted if the firm under scrutiny already exercises monopoly power. If the monopoly is pricing high above competitive prices, then an application of the hypothetical price increase (SSNIP) test may produce the result that consumers switch to products which are not close substitutes, which in turn leads to an overly broad definition of the relevant market.[43] Similarly, in non-discrimination cases the market is usually distorted by the putative trade barrier under scrutiny. Consequently, discriminated foreign products are generally priced above competitive prices. If on this basis one would apply the SSNIP test by hypothetically increasing the price of the domestic product (or decreasing the price of the imported product), the result would also be flawed. Due to the trade barrier in place, the test understates the consumers' willingness to switch products, a reason for which the relevant market appears smaller than it may actually be. This result could be referred to as a 'reverse *Cellophane* fallacy', as it is exactly opposite to the effect in cases of single firm conduct.[44]

Additionally, since market definition in competition law is designed to assess market power, it is necessary to determine the entire scope of competing products or services, including the geographic and possibly temporal dimension. In contrast, the typical national treatment analysis is only concerned with the competitive relationship between an imported product or service treated less favourably compared to a domestic product or service. In particular in the area of investment protection, national treatment has occasionally been interpreted as an obligation to treat all foreign products or services equivalent to the 'best' treatment accorded to a 'comparable' domestic product or service. Following this interpretation of national treatment, there is no need to define the entire market of all competing products. However, within the WTO framework it may no longer be sufficient to limit the assessment of competitive relationships to two products or services without defining the entire market, considering that the Appellate Body in *EC – Asbestos* found that 'a complaining Member must … establish that the measure accords to the group of "like" *imported* products less favourable treatment than it accords to the group of *domestic* products'.[45] Following this interpretation, national treatment is not an obligation to accord 'the best treatment' to foreign competitors, but only an obligation

[43] On the so-called *Cellophane* fallacy, see, for example, Lindsay/Scola, above n. 23, at 257–258; Werden, above n. 15, at 135–139; Bishop/Walker, above n. 26, at 98 ff.; L.J. White, 'Market Power and Market Definition in Monopolizing Cases', in *Issues in Competition Law and Policy*, vol. II, ed. Collins (Chicago, IL: ABA Section of Antitrust Law, 2008), 913, 919–920; ABA Section of Antitrust Law, *Market Power Handbook: Competition Law and Economic Foundations* (2005), 59–60.

[44] Emch, above n. 35, 385; on this issue see also L.M. Froeb & G.J. Werden, 'The Reverse *Cellophane* Fallacy in Market Delineation', *Review of Industrial Organization* 7 (1992): 241, passim.

[45] Appellate Body Report, *EC – Asbestos*, WT/DS135/AB/R, adopted 5 Apr. 2001, para. 100.

not to treat the group of foreign competitors less favourably than the group of domestic competitors.[46] An implementation of this so called 'asymmetric' or 'disproportionate' impact test would require defining the entire relevant market of competing products or services and determining the effect of the measure on domestic and foreign competitors.[47] It is thus to be expected that future applications of national treatment will focus more on the definition of relevant markets, which at the same time is likely to require a more refined assessment of demand substitutability.

Importantly, even though it would be welcomed if international economic law were to focus more specifically on the analysis of demand substitutability, this does not mean that the relevant product and service markets would necessarily be identical for purposes of competition law and non-discrimination. Markets tend to be smaller if they are defined such that they include only products or services with a very strong competitive relationship, which in turn facilitates the conclusion that a certain company has market power. Hence, as a rule of thumb, the smaller the market is construed, the higher the likelihood that a certain private conduct violates competition law. In contrast, the effect is exactly opposite in international economic law. The higher the requirements for the competitive relationship, the more difficult it is for the foreign producer or supplier to define a domestic product or service which is 'comparable'. In consequence, if the complainant fails to establish 'comparability', there is no violation of the national treatment obligation. For this reason, adjudicating bodies have a tendency to define broader markets for purposes of international economic law than for competition law.[48]

A number of cases illustrate this point. For instance, the ECJ defined the relevant product market so as to include all alcoholic beverages for purposes of the non-discrimination obligation of Article 110 TFEU,[49] whereas the Commission concluded that different types of whiskey constitute separate relevant markets in merger control.[50] In comparison, WTO jurisprudence also suggests that alcoholic beverages are 'like' and/or 'directly competitive or substitutable' products.[51] In a tax discrimination case the ECJ found bananas and other fruit to be in a competitive relationship for purposes of Article 110(2) TFEU but noted that bananas are sufficiently distinct from other fresh fruit so as to constitute its own product market in a competition law case on the abuse of

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[46] N.F. Diebold, *Non-discrimination in International Trade in Services – 'Likeness' in WTO/GATS* (Cambridge: Cambridge University Press, 2010), at 40 ff.

[47] L. Ehring, 'De facto Discrimination in World Trade Law; National and Most-Favoured-Nation Treatment – or Equal Treatment?', *Journal of World Trade* 36 (2002): 921, 972.

[48] P. Demaret, 'The Non-discrimination Principle and the Removal of Fiscal Barriers', in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law: Past, Present, and Future*, ed. Cottier/Mavroidis (Ann Arbor, MI: University of Michigan Press, 2000), 171, 178.

[49] Case 168/78 *French Republic* [1980] ECR 347, para. 40: Case 171/78 *Kingdom of Denmark* [1980] ECR 447, para. 34; Case 319/81 *Italian Republic* [1983] ECR 601, para. 16; Case 230/89 *Hellenic Republic* [1991] ECR I-1909, para. 9; Case 170/78 *United Kingdom* [1980] ECR 417, para. 14; for an overview of early cases, see S.R. Swanson, 'Concepts of Similarity and Indirect Protection under EEC Treaty Article 95: The Alcohol Cases', *Vanderbilt Journal of Transnational Law* 15 (1982): 277, 288 ff.

[50] Case IV/M.938 *Guinness* OJ [1998] L 288/24, paras 14, 123, 147.

[51] Panel Reports, *Japan – Alcoholic Beverages II*, WT/DS76/R, adopted 19 Mar. 1999; *Korea – Alcoholic Beverages*, WT/DS75/R, WT/DS84/R, adopted 17 Feb. 1999; *Chile – Alcoholic Beverages*, WT/DS87/R, WT/DS110/R, adopted 12 Jan. 2000.

a dominant position.[52] Finally, in a US merger control case the Court of Appeals reversed the lower court's finding on the relevant market and essentially separated high fructose corn syrup (HFCS) from the sugar market for reasons of significant price differences.[53] In contrast, the WTO Panel in *Mexico – Taxes on Soft Drinks* found that HFCS and cane sugar are directly competitive or substitutable for purposes of Article III:4 GATT.[54]

Against the background of these considerations, this article submits that demand substitutability is the key instrument for the assessment of competitive relationships for purposes of both market definition and 'comparator clauses'. With the implementation of the 'disproportionate impact test' under WTO rules on non-discrimination, it will become more important in international economic law to define entire product or service markets. For this reason, it is desirable that adjudicating bodies in international economic law would take advantage of the experiences from national competition authorities around the globe by applying the concept of market definition. As explained above, however, differences between policy objectives of non-discrimination and competition law principles may at the same time justify different scopes of product and service markets in order to achieve their common goal of protecting competition and competitive opportunities.

4. The Supply Side of Competitive Relationships

The EC Market Definition Notice states that, in addition to demand substitutability, the relevant market is also defined on the basis of supply substitutability and potential competition as additional sources of competitive constraints.[55] Substitutability of supply is generally defined as 'the extent to which producers of one product would be willing to shift their resources to producing another product in response to an increase in the price of the other product'.[56] In other words, the production of product A is substitutable with the production of product B from a supply perspective if a demand for increased performance by consumers of product B (i.e., lower prices or higher quality) would cause producers to switch to product A for which no increased performance is demanded (i.e., possibility to sell for higher prices or lower quality).

Competition authorities apply the concept of supply substitutability at different stages of the legal analysis in order to define the relevant market and to determine the power or dominance of a company in a given market (section 4.1). Having concluded under the previous section 3.3 that international economic law should draw from the tests developed by competition authorities for the assessment of substitutability of demand, section 4.2 addresses the question whether the same should be true with regard to supply

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[52] Case 184/85 *Italian Republic* [1987] ECR 2013, para. 12; Case 27/76 *United Brands* [1978] ECR 207, para. 31; Bishop/Walker, above n. 26, at 92 ('toothless fallacy').

[53] *US v. Archer-Daniels-Midland*, 695 F Supp. 1000, S.D. Iowa 1987, rev'd 866 F 2d 242, 246, 8th Cir. 1988.

[54] Panel Report, *Mexico – Taxes on Soft Drinks*, WT/DS308/R, adopted 24 Mar. 2006, para. 8.78.

[55] EC Market Definition Notice, above n. 17, para. 13; Bishop/Walker, above n. 26, at 90.

[56] *AD/SAT v. Associated Press*, 181 F 3d 216, 227, 2nd Cir. 1999; EC Market Definition Notice, above n. 17, paras 20–23; Monopolkommission, above n. 22, at 205 ff.; Hildebrand, 2002, above n. 22, at 290, 334 ff.

substitutability. In fact, a number of commentators request that substitution of supply as applied by competition authorities also be considered under the analysis of comparator clauses for purposes of non-discrimination obligations in international economic law.[57] This article submits that the relevance of supply substitutability depends on whether the measure under scrutiny falls within the scope of trade in goods (section 4.2.1), trade in services (section 4.2.2) or investment protection (section 4.2.3).

Moreover, it is necessary to clearly distinguish supply substitutability from potential and future competition (section 4.3). Supply substitutability in a narrow sense only refers to those situations in which a supplier has the capacity to immediately and effectively substitute its production of one product with the production of another product. The short period of time, low costs and the ability of effectively bringing the new product into the market are the main criteria distinguishing supply substitutability in a narrow sense from potential and future supply side competition. The concepts of potential and future competition as well as ease of entry all relate to the situation where new competitors are likely to enter the market in the near future, either by long-term supply substitutability or de novo market entry.

4.1. Diverse supply side analysis in competition law

In competition law analysis, supply side factors may enter into consideration at three different stages, namely (i) for the definition of the relevant market itself, (ii) for the assessment of market shares in a relevant market or (iii) as a corrective element for the assessment of market power.[58] The EC Market Definition Notice generally supports the first approach. It identifies supply substitutability as competitive constraint which may be relevant for market definition if, in the given market, 'its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy'.[59] The Notice states the example of a paper plant which may easily substitute the production from one type of paper to another, such as standard writing paper and paper used to publish art books. Despite the fact that such products may not be substitutable from a demand perspective, high- and low-quality papers are included in the relevant market due to the high degree of supply substitutability. In the United States, some courts have also taken supply substitutability into account at the stage of market definition.[60] However, the most recent edition of the US Merger Guidelines reject this theory, arguing that market definition

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[57] Choi, above n. 42, at 35; Horn/Mavroidis, above n. 42, at 61; Neven, above n. 42, at 438; M. Melloni, *The Principle of National Treatment in the GATT: A Survey of the Jurisprudence, Practice and Policy* (Brussels: Bruylant, 2005), 127; M. Krajewski, 'Book Review: Won-Mog Choi, Like Products in International Trade Law – Towards a Consistent GATT/WTO Jurisprudence', *King's College London* 15 (2004): 198, 201.

[58] G. J. Werden, 'Market Delineation and the Justice Department's Merger Guidelines', *Duke Law Journal* (1983) 514, 519.

[59] EC Market Definition Notice, above n. 17, para. 20; see also Lindsay/Scola, above n. 23, at 270 ff.; Mueller, above n. 22, at 73; Neveling, above n. 23, at 167.

[60] *Rebel Oil Co. v. Atlantic Richfield Co.*, 51 F 3d 1421, 1436, 9th Cir. 1995: 'market definition must be based on supply elasticity as well as demand elasticity'; also *Twin City Sportservice v. Charles O. Finley & Co.*, 512 F 2d 1264, 1271, 9th Cir. 1975.

only looks at demand substitutability, whereas '[s]upply substitution factors – i.e., possible production responses – are considered elsewhere in the Guidelines in the identification of firms that participate in the relevant market and the analysis of entry'.[61] The Department of Justice thus endorses the second and third approach to supply side factors. Under the second approach, the relevant product market is defined only on the basis of demand substitution. However, producers who could easily substitute into the relevant market are also assigned market shares in accordance with their respective potential capacities. Finally, under the third theory, supply side factors are only taken into consideration once the relevant market has been defined and the market shares have been assigned to the current competitors. If following this analysis the company under scrutiny appears to have market power, supply side factors – such as supply substitutability and de novo entry – may lead to the conclusion that in fact the company is not in a position to exercise market power. Following this rationale, new competitors would enter the market in case the company under scrutiny was to exercise its alleged market power by, for instance, rising prices.

In summary, the EC Market Definition Notice provides that immediate and effective supply substitutability must be considered in the first step, namely, for the actual exercise of market definition. Potential (or future) competition relating to de novo entry and non-immediate supply substitutability is considered in the third step as a corrective element. In contrast, pursuant to the US Merger Guidelines, supply substitutability is taken into account under the second step for assigning market shares and de novo entry is used in a third step to measure the ability of the company to exercise market power.

4.2. Lack of supply side analysis in international economic law

To date, considerations of supply substitutability have not yet become part of the analysis of 'comparator clauses' in international economic law,[62] even though a number of commentators are suggesting such an approach. At first sight, the argument to include supply substitutability seems convincing, as competition law and international economic law are both concerned with the assessment of competitive relationships. However, it is also necessary to keep in mind the conceptual differences between market definition and 'comparability'. In competition law, the definition of the relevant market on the basis of competitive relationships constitutes an analysis of facts in order to apply the legal element of market power. Non-discrimination obligations in international economic law, in contrast, are not concerned with the position of a specific company in a given market, but with the effect of a state measure. The legal element of 'comparability' only requires analysing the extent to which certain products, services or investments are in

[61] US Merger Guidelines, above n. 16, at 4; see also J.B. Baker, 'Market Definition: An Analytical Overview', *Antitrust Law Journal* 74 (2007): 129, 134 ff.

[62] For marginal references to supply substitutability in context of the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement), 15 Apr. 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 14, see Panel Reports, *Korea – Commercial Vessels*, WT/DS273/R, adopted 11 Apr. 2005, Annex D paras 108 f; *US – Export Restraints*, WT/DS194/R and Corr.2, adopted 23 Aug. 2001, Annex B-3 para. 3.

a competitive relationship. Consequently, the two competition law theories suggesting consideration of supply side factors for the assignment of market shares or for the assessment of future competition constraining market power are per se not applicable to the concept of 'comparability'.

The remaining question thus is whether the theory of immediate and effective supply substitutability as stipulated by the EC Market Definition Notice may be relevant for non-discrimination in international trade law. In competition law, supply side factors are always considered as competitive constraints which can only enlarge – but not diminish – a relevant market circumscribed by demand substitutability. Therefore, if the assessment of demand substitutability for purposes of international economic law leads to the result that a competitive relationship exists and that the products, services or investments are thus 'comparable' or 'like', then supply side factors will not in any way affect or change this conclusion. In other words, products which are 'comparable' or 'like' based on demand substitutability may not become 'unlike' due to considerations of supply substitutability. The pertinent question thus is whether in the absence of a competitive relationship from a demand perspective, supply side factors may lead to the conclusion that 'likeness' exists.

The relevance of supply substitutability in the context of 'comparability' depends primarily on the main purpose of the respective non-discrimination obligation in international economic law. More specifically, the issue is whether non-discrimination obligations protect only foreign *products, services and investments* from unequal treatment, or whether it more generally protects the competitive opportunities of *producers, suppliers and investors* in relation to their entire product or service range in a certain sector. This issue cannot be resolved in general terms but requires considering the text and context of the specific provision in question.

4.2.1. *No Relevance of Supply Substitutability in International Trade in Goods*

In the context of the WTO the adjudicating bodies acknowledged that the fundamental purpose of national treatment in GATT 'is to ensure equality of competitive conditions between imported and like domestic *products*'.[63] For this reason, it seems difficult to uphold an argument of supply substitutability.

For example, assume again that low and high quality papers are not substitutable from a demand side perspective (see above section 4.1). Counrty A levies a 10% tax on high-quality paper which is predominantly imported from country B. If likeness is defined on the basis of demand substitutability, then country B has no claim of discrimination as all types of high-quality paper are treated equally. However, if low-quality paper is predominantly produced domestically, then country B could argue that high- and low-quality papers are 'like products' on the basis of supply substitutability, even though these products are not substitutable from a demand perspective. The relevant market would thus be defined as including all types of paper.

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[63] Appellate Body Report, *Canada – Periodicals*, WT/DS31/AB/R, adopted 30 Jul. 1997, 18 (emphasis added); see also Appellate Body Report, *Japan – Alcoholic Beverages II*, WT/DS76/AB/R, adopted 19 Mar. 1999, at 14 ff.

The disproportionate impact test as the second step of the non-discrimination analysis requires assessing how the tax on high-quality paper affects the groups of domestic and foreign producers in the relevant paper market. In general terms, supply side factors would be particularly pertinent if supply substitutability is high for domestic producers and low for foreign producers. Under such a constellation, domestic producers would gain a competitive advantage over foreign competitors as they could more easily evade the trade obstacle. Following this rationale, non-discrimination would not only protect competitive opportunities of a specific type of paper but of paper producers generally. Thus, supply side arguments in the 'likeness' analysis presupposes that the scope of the GATT non-discrimination rules is interpreted extensively. Yet, it appears that such an interpretation would go against the text of Article III GATT which defines its scope of application to any measure that affects the internal sale of *products*. Also, in a different context the WTO adjudicating bodies emphasized that the scope of GATT rules on non-discrimination is limited to products and that they do not apply to measures regulating producer and production related aspects.[64] Following this rationale, it seems that supply side factors may generally not to be taken into consideration for the 'like products' analysis under GATT non-discrimination obligations.[65]

However, under a different approach the theory of supply substitutability could serve as a corrective element in cases where 'comparability' is affirmed on the basis of demand substitutability. Assume, for example, that country A levies a tax or imposes a regulation on a certain type of predominantly imported low quality paper, while a different type of predominantly domestically produced low quality paper remains unaffected by the tax or the regulation. As these products are 'alike' on the basis of demand side factors, the tax or regulation violates GATT national treatment. Nevertheless, the defendant could argue that due to the high supply substitutability for both foreign and domestic producers, there is in fact no competitive disadvantage for foreign producers since they could evade the extra tax or the regulation simply by switching the production between the two types of low-quality paper without incurring high costs and within a short period of time.[66] Consequently, there would be no violation of the national treatment obligation. However, this argument is less an issue of 'comparability' or 'likeness' of the products than a question of whether or not a competitive advantage is in fact accorded to domestic paper (or producers) over foreign paper (or producers) or, in other words, whether there is 'less favourable treatment'. Considering again the limitation of GATT

[64] GATT Panel Reports, *US – Tuna (Mexico [1991])*, DS21/R, DS21/R, 3 Sep. 1991, unadopted, paras 5.14 and 5.18; *US – Tuna (EEC [1994])*, DS29/R, 16 Jun. 1994, unadopted, paras 5.6 ff, according to which measures pertaining to 'process and production methods' (PPMs) fall outside the scope of Art. III if they do not affect the *product* as such; also Panel Report, *US – Gasoline*, WT/DS2/R, adopted 20 May 1996, para. 6.11; see also for example, S. Charnovitz, 'The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality', *Yale Journal of International Law* 27 (2002): 59, 86 ff.; G. Marceau & J. P. Trachtman, 'The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement and the General Agreement on Tariffs and Trade: A Map of the World Trade Organization Law of Domestic Regulations of Goods', *Journal of World Trade* 36 (2002): 811, 856 ff.; R. Read, 'Like Products, Health & Environmental Exceptions: The Interpretation of PPMs in Recent WTO Trade Dispute Cases', *Estey Centre Journal of International Law and Trade Policy* 5 (2004): 123, 128–133.

[65] Emch, above n. 35, at 373–374; but see Choi, above n. 42, at 35–49.

[66] On this issue also Choi, above n. 42, at 35–49.

non-discrimination rules to the treatment of products, it appears that such an argument based on supply substitutability is not an easy one to make.[67]

4.2.2. *Limited Relevance of Supply Substitutability in International Trade in Services*

The situation is entirely different with regard to international trade in services. Due to the inseparability between the service and its supplier, international trade may require the foreign supplier to establish a commercial presence abroad or to temporarily move to the importing country in his or her capacity of an independent service supplier (e.g., lawyer, consultant, health worker) or employee of a foreign service company (e.g., law firm, consultancy firm, hospital). For this reason, Article I:2 GATS distinguishes between four modes of service supply, namely cross-border supply (mode 1), consumption abroad (mode 2), commercial presence (mode 3) and temporary movement of natural persons (mode 4).[68] Consequently, GATS non-discrimination rules on MFN (Article II) and national treatment (Article XVII) not only require the equal treatment of imported services, but also of foreign service suppliers. In other words, foreign suppliers who move to the territory of another WTO Member are beneficiaries of the GATS non-discrimination obligations. Moreover, the WTO adjudicating bodies found that vertically integrated companies which have the capability and opportunity to enter a certain service market qualify as service suppliers in terms of GATS.[69] This ruling has been understood to signify that trade restrictive measures may be subject to GATS obligations, even if they affect a service that is not actually but could potentially be supplied by foreign suppliers with the necessary capabilities.[70] This situation opens up new possibilities for supply side arguments with regard to both the scope of non-discrimination obligations and the analysis of 'comparability'. Assume, for instance, country A imposes a 10% sales tax on fire monitoring services but not on burglary monitoring services. While these two types of security services are not substitutable from a demand side, they are perfectly substitutable from the supply side in that suppliers of home security systems may easily provide either or both of the two services. If the market is defined as including only fire monitoring services, there would be no violation of national treatment due to the lack of unequal treatment. Conversely, if for reasons of supply substitutability all suppliers of home security systems are included in the same market, a violation of national treatment may occur under the condition that fire monitoring services are predominantly provided

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[67] For a suggestion on how to use supply substitutability in the analysis see Diebold, above n. 41, at 20.

[68] D. Zacharias, 'Commentary to Article I', in *WTO – Trade in Services: Max Planck Commentaries on World Trade Law*, vol. 6, ed. Wolfrum et al. (Leiden: Martinus Nijhoff Publishers, 2008), 31, 48–53.

[69] Panel Report, *EC – Bananas III*, WT/DS27/R/USA, adopted 25 Sep. 1997, para. 7.320; aff'd Appellate Body, WT/DS27/AB/R, paras 227 f.

[70] W. Zdouc, 'WTO Dispute Settlement Practice Relating to the GATS', *Journal of International Economic Law* 2 (1999): 295, 327; Zdouc, 2002, pp. 133–135; C. Feinäugle, 'Commentary to Article XXVIII', in *WTO – Trade in Services: Max Planck Commentaries on World Trade Law*, vol. 6, ed. Wolfrum et al. (Leiden: Martinus Nijhoff Publishers, 2008), 540, 553–554; M. Krajewski, *National Regulation and Trade Liberalization in Services – The Legal Impact of the General Agreement on Trade in Services (GATS) on National Regulatory Autonomy* (The Hague: Kluwer Law International, 2003), 103; M. Krajewski & M. Engelke, 'Commentary to Article XVII', in *WTO – Trade in Services: Max Planck Commentaries on World Trade Law*, vol. 6, ed. Wolfrum et al. (Leiden: Martinus Nijhoff Publishers, 2008), 396, 406.

by foreign suppliers and burglary monitoring services predominantly by domestic suppliers. This argument seems to be justified under the GATS framework which explicitly protects foreign suppliers – and according to WTO jurisprudence even potential suppliers – from discriminatory measures. However, the concept of 'potential suppliers' should be limited to immediate and effective supply substitutability. In fact, if potential suppliers were understood as including long-term supply substitutability and de novo market entry, then it would become impossible to circumscribe a specific group of suppliers and, consequently, to define a relevant market.

The same reasoning applies to other international agreements regulating international trade in services. The NAFTA rules on non-discrimination in international trade in services, for instance, also specifically protect the foreign service provider from discriminatory actions (Articles 1202 and 1203), thus opening the door for supply side factors in the analysis of 'like circumstances'.

4.2.3. *Limited Relevance of Supply Substitutability in Investment Protection*

Similarly to international trade in services, the rules on investment protection usually protect both investments and investors from discriminatory state action. Articles 1102 and 1103 NAFTA, for instance, both contain two paragraphs of which the first is directed at the protection of foreign investors and the second at the protection of foreign investments. Considering that foreign investments are usually related to the establishment of a commercial presence, it seems appropriate to assess competitive relationships not only from the demand side, but also on the basis of supply side factors. However, a comparative analysis between WTO law and investment protection rules must be exercised with great caution, taking into account the systemic differences of the respective non-discrimination provisions. As explained above, WTO non-discrimination rules require assessing the disproportionate impact of a measure on the group of foreign products, services or suppliers in a defined market, reason for which supply side factors may be relevant to the extent that suppliers are directly protected by the non-discrimination provision.

In contrast, non-discrimination in investment protection is also interpreted as an obligation to accord to foreign investments and investors *the best treatment* accorded to *any* domestic investment or investor in like circumstances. Consequently, a foreign investor is not required to define the entire market of competing entities, but only to identify *one single domestic competitor* who is receiving more favourable treatment. The consideration of supply substitutability in addition to demand substitutability would considerably enlarge the number of domestic competitors which could serve as a comparator receiving more favourable treatment. For this reason, applying non-discrimination obligations to situations where investors compete solely on the supply side is likely to lead to over inclusive results. Supply side factors should thus only be taken into account if the element of 'less favourable treatment' is interpreted in accordance with the disproportionate impact test.

Finally, as already discussed under the section 4.2.1 on trade in goods, the theory of supply substitutability could be taken into consideration as a corrective element for

the question of whether the conditions of competition have been modified to the detriment of a foreign investment and/or investor. If the measure under scrutiny only affects a specific product or service which the foreign investor may immediately, effectively and at no costs substitute with other products or services in the same sector not affected by the measure, then there may be no overall competitive disadvantage. While this argument is more difficult to make in the GATT framework where non-discrimination obligations are designed specifically to protect products – regardless of the competitive situation of the producer – investment protection rules protect the competitiveness of an investor or an investment in a company of a certain business sector as a whole. As a consequence, the competitiveness of the investment may not be affected if the investor is able to easily substitute its product or service with another product or service that is not subject to the measure in question.

4.3. Potential and future competition

The concepts of potential and future competition are used very differently in competition law and international economic law. As noted above, the analysis of market power in competition law requires considering whether a company with high market shares is likely to face future or potential competition either by supply substitutability or de novo market entry. The concepts of potential and future competition thus refer to supply side factors.

In contrast, international economic law requires assessing the competitive relationship under the assumption of a market situation in which the alleged trade barrier does not exist. In other words, a trade barrier – such as a 10% tax affecting primarily imports – may lead to the result that consumers do not currently view the imported and domestic products as substitutes if the trade barrier results in higher prices of the imported products. The concepts of potential and future competition express the theory that the 'likeness' analysis must focus on how the market situation would be without the alleged trade barrier. Consequently, these concepts are not related to supply side factors, but to demand responses in a 'but for' market situation. For instance, the Panel in *Japan – Alcoholic Beverages II* noted that a tax system discriminating against imports 'has the consequence of creating and even freezing preferences for domestic goods. In the Panel's view, this meant that consumer surveys in a country with such a tax system would likely understate the degree of potential competitiveness between substitutable products'.[71]

The WTO adjudicating bodies usually make no distinction between potential and future competition. However, a differentiation may be appropriate in certain circumstances. The EU very accurately stated in the panel proceedings *Chile – Alcoholic Beverages* that:

> the notion of potential competition must be deemed to include not only competition that would exist 'but for' the tax measures at issue, but also competition that could be reasonably expected to

[71] Panel Report, *Japan – Alcoholic Beverages II*, WT/DS76/R, adopted 19 Mar. 1999, para. 6.28.

> develop in the future having regard, for example, to existing trends in the market concerned or to the situation prevailing in other markets.[72]

The consideration of such long-term developments on the demand side are particularly relevant with regard to so-called 'experience goods and services' which must be purchased and consumed before consumers could appreciate the aptitude of the product to satisfy their needs.

5. Conclusions

This article attempted to identify and analyse the differences and similarities between the assessments of competitive relationships with regard to two different legal instruments in two distinct fields of law. Since competition law practice has developed refined methods for the definition of relevant markets, the main question is whether the 'likeness' analysis for purposes of non-discrimination in international economic law could and should draw from the experiences made by competition authorities and courts.

The first conclusion submitted by this article is that adjudicating bodies in international economic law should, in a first step, recognize more explicitly that the concept of 'comparability' or 'likeness' refers to competitive relationships in an actual market. Consequently, purely qualitative and formal criteria such as physical characteristics and end-uses have no value in themselves but must be weighed and assessed through the lens of the actual consumer. Once the competitive relationship is recognized as the main parameter for 'likeness', the adjudicating bodies should then, in a second step, clearly identify demand substitutability as the main instrument to assess competitive relationships. If non-discrimination obligations are interpreted as protecting competitive opportunities of foreign products as a group in comparison to domestic products as a group (disproportionate impact test), then the market analysis consists not only of a direct comparison between two types of products or services, but requires the definition of an entire market of competing products or services. Consequently, it is submitted that economic tests from competition law practice should also be applied for the 'likeness' analysis, including quantitative tests (such as the SSNIP test) and qualitative assessments. Importantly, however, it may very well be justified that markets in a specific sector are not defined identically for purposes of competition and international economic law. Conceptual differences between the respective instruments may require that markets are defined broader for the analysis of non-discrimination obligations than for competition law instruments. However, this difference is likely to become of lesser significance with the implementation of the disproportionate impact test.

The assessment of market power in competition law practice strongly relies on supply side factors in addition to demand substitutability, namely to define the relevant market, to assign market shares or to anticipate future competition. Whether supply side considerations are also relevant in the context of international economic law depends

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[72] Panel Report, *Chile – Alcoholic Beverages*, WT/DS87/R, WT/DS110/R, adopted 12 Jan. 2000, para. 4.41.

on different factors. A first important element is whether the specific non-discrimination obligation is designed to protect competitive opportunities of a specific product or investment in particular, or of producers or investors in a certain market sector in general. Second, the relevance of supply side factors depends on the interpretation of non-discrimination, namely whether it is applied as an obligation to treat *all* foreign market participants equivalent to the 'best' treatment accorded to one 'like' domestic market participant, or as an obligation to treat the group of foreign market participants no less favourably than the group of domestic market participants. The regulatory autonomy of the parties to international economic agreements would be excessively restricted if differential treatment of market participants who compete solely on the supply side would violate non-discrimination obligations. Third, supply side factors could be taken into the equation not to analyse competitive relationships, but as corrective elements to assess whether or not a measure affects competitive opportunities of foreign market participants. In case the trade barrier only affects a specific product or service which the foreign market participant may immediately, effectively and at no cost substitute with other products or services in the same sector not subject to the measure in question, then there may be no overall competitive disadvantage.

Finally, the comparative analysis shows that the concepts of potential and future competition have a different meaning in competition than in international economic law. Competition law focuses on the question of whether future or potential competition by supply substitutability or de novo market entry is likely to constrain market power. In contrast, non-discrimination analysis asks the question whether a competitive relationship would develop in a market where the putative trade barrier would cease to exist. The focus thus lies on developments on the demand side in a 'but for' situation.

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