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Competition Analyses of Licensing Agreements

Considerations for Developing Countries under TRIPS

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LIST OF ABBREVIATIONS AND ACRONYMS

BACEN	Banco Central do Brasil
CJEU	Court of Justice of the European Union
DOJ	United States Department of Justice
ECJ	Court of Justice of the European Communities
FTC	Federal Trade Commission
ICTSD	International Centre for Trade and Sustainable Development
INPI	Instituto Nacional da Propriedade Industrial
JFTC	Japan Fair Trade Commission
NAP	Non-assertion provision
OECD	Organisation for Economic Cooperation and Development
OEMs	Original equipment manufacturers
TEC	Treaty Establishing the European Community
TFEU	Treaty on the Functioning of the European Union
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
UR negotiations	Uruguay Round trade negotiations
WTO	World Trade Organization

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FOREWORD

The Agreement on Trade-related Aspects of Intellectual Property Rights (the TRIPS Agreement) of the WTO acknowledges in its principles the opportunity for Member countries to adopt measures "to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology". It provides further in Part II (Standards concerning the availability, scope and use of intellectual property rights, Art. 40) for the control of anti-competitive practices in contractual licenses. The 2007 World Intellectual Property Organization Development Agenda states in its Recommendation 7 that technical assistance should be made available to "[p]romote measures that will help countries deal with intellectual property-related anti-competitive practices, by providing technical cooperation to developing countries, especially LDCs, at their request, in order to better understand the interface between IPRs and competition policies." This interface is a complex and multifaceted one and a topic that is not well-known in jurisdictions that have not had much experience with how these two bodies of law interact.

The TRIPS Agreement (Art. 40.2) is often seen as the source of international law that permits competition law to address certain abusive licensing practices. The present paper provides an analysis of how one country, Japan, approached the issue of the control of licensing practices through its post-World War II history, and compares it to the approaches taken in other jurisdictions, most notably in the United States and in the European Union. The development of licensing regulation and practices in Japan is often seen as a possible model for developing countries that are seeking to address this interface with limited resources and bargaining power, yet with an abundant need for the introduction of new and relevant technologies for meeting development objectives.

The paper traces the approach used by Japan and its evolution from a net technology importer to exporter, as well as the changes in its industrial development and technology transfer policies. In order to provide the proper context to the changes experienced in Japan the analysis first traces the negotiation history of the relevant TRIPS provisions (Articles 8.2 and 40.2), which establish global principles for addressing this interface. The paper raises important questions as to when it might be appropriate to apply per se rules as opposed to rule of reason analysis for considerations of fairness, and when it might be appropriate to shift from the former to the latter. In so doing, the paper is designed to shed light on the considerations weighed in establishing and changing the country's approach to the control of certain licensing practices.

This paper was developed as a joint effort between the United Nations Conference on Trade and Development and the International Centre for Trade and Sustainable Development.

We hope you will find this study, based on national jurisdictions experience, a useful contribution to a better understanding of the complexities of the interface between intellectual property and competition law.

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Chief Executive, ICTSD

EXECUTIVE SUMMARY

This article analyses provisions in the TRIPS Agreement on the ‘control of anti-competitive practices in contractual licences’, notably in Article 40. The language of Article 40 is flexible and leaves WTO Members a considerable margin of discretion in interpreting the meaning of ‘an abuse of intellectual property rights having an adverse effect on competition in the relevant market’.

The background to this provision reveals that there were at least two contentious underlying issues when it was formulated. The first concerned the meaning of competition. For developing countries, whether or not the licensing terms were fair from the viewpoint of technology transfer was important. In contrast, the US view was that an antitrust violation requires injury to competition, measured only by the effect on competition in the relevant market, except for price-fixing, customer allocation, bid-rigging or other cartel activities most of which are considered presumptively illegal (per se illegal).

The second contentious issue related to the question of whether a case-by-case competition test should be applied, based on the rule of reason (i.e. assessing anti-competitive and pro-competitive effects of the conduct to see how much efficiency is realised by the conduct) or whether administrative checks should be applied to contractual terms regarding pre-determined forms of conduct.

This article uses Japan’s licensing regulation as a case study. For a long time, the country was concerned about ‘unfairness’ in international licensing contracts. Its competition authorities critically assessed Japan’s technological reality, established a list of conducts with graduated shades of illegality, and, through administrative guidance, identified harmful clauses in licensing agreements such as exclusive grantbacks, non-competition clauses or tie-ins, for example. Later, non-assertion clauses were considered problematic if they diminished the incentive of local industries to innovate.

The Japanese model of administrative control of pre-determined forms of conduct in licensing terms based on ‘fairness’ has attracted the attention and interest of developing countries, many of which, for various reasons, have introduced that thinking into their own laws. The model may be interesting for countries at the initial development or reconstruction stages, when infant industries need support. Japanese companies learned how to assess contract terms that may harm their efforts to innovate. However, neglect of the National Treatment principle as well as administrative screening of mere contract forms have long-term negative economic impacts unless the basis of administrative intervention transforms itself into a more in-depth analysis of the effect on competition in relevant markets.

This article explores the possible consequences of competition rules based on fairness, with a view to drawing implications for developing countries under the TRIPS Agreement.

INTRODUCTION

The TRIPS Agreement contains provisions concerning 'control of anti-competitive practices in contractual licences' in Section 8, which consists solely of Article 40. According to Paragraph 2 of this provision, Members are allowed to 'specify' in their legislation practices and conditions which constitute, in particular cases, an abuse of intellectual property rights having an 'adverse effect on competition in the relevant market'. Members may also adopt, consistently with the other provisions of the Agreement, appropriate measures to prevent or control these practices, examples of which include exclusive grantback conditions, conditions preventing challenges to validity, and coercive package licensing.

Article 40, as well as Article 8.2 of the TRIPS Agreement relating to the abuse of intellectual property, was proposed by developing countries during the Uruguay Round negotiations (1986–1994). Developing country negotiators read in Article 40 'important steps forward in dealing with restrictive business practices indulged in by transnational corporations at least in the context of contractual IPR licences'.[1] Given the initial reluctance of some developed countries to include any mention of the subject in the agreement, this provision was indeed a victory for developing countries.[2]

Article 40.2, however, introduces the language of US antitrust analysis, which deals with 'market power', the ability to profitably maintain prices above, or output below, competitive levels for a significant period of time.[3] Although crucial concepts are not defined – and considerable flexibilities therefore exist in interpreting the provision – Article 40.2 seems to indicate that whether or not licensing terms are anti-competitive is measured, in certain cases, by their particular 'effect' on competition in the relevant market, i.e. the scope of a market where close substitutes exist, to be determined by a detailed market analysis. Article 40.2, therefore, does not entirely reflect developing countries' approach to competition, which emphasised 'fairness' in evaluating 'restrictive business practices', as expressed in UNCTAD discussions on the code of conduct for the transfer of technology (TOT code).[4]

The TOT discussions, held from 1970s[5] to 1992, failed to agree on the code. In these talks, some developing countries looked to Japan's method of regulating 'unfair' licensing agreements[6] under its Antimonopoly Act (AMA)[7] as a guidepost. Japan's control of licensing terms seems to have influenced the thinking of several developing countries, as reflected in Decision 24 of the Andean Pact in December 1970.[8] Brazil still maintains the obligation that the country adopted, following the Japanese model, for the licensor to register intellectual property licensing contracts and leave the licensees their improved technologies.[9]

The Japanese regulation of licensing terms from 1947 and 1998 was motivated by fairness in accessing intellectual property as an important element in the process of technology transfer and for local innovation's contribution to economic development. Japan's fairness approach differed radically from the US antitrust approach, which increasingly emphasised global competition, consumer welfare and inventiveness.[10]

This article analyses the background to the formulation of Article 40 of the TRIPS Agreement and reflects on how a 'fairness' approach to licensing terms differs from the 'market power' approach (Section 1). It uses as a case study Japan's licensing regulations, which, for a long time, were concerned with 'unfairness' in licensing contracts (Section 2). It also examines the positive and negative aspects of such regulation, compares it with the US antitrust approach, and explores the possible consequences of competition rules based on fairness, with a view to drawing implications for developing countries today under the TRIPS Agreement (Section 3).

1. TRIPS PROVISIONS AND LICENSING PRACTICES

1.1 The draft UNCTAD code of conduct

Many of the issues relating to the role of IPRs in developing countries had been discussed since the 1960s at the UN, as well as at UNCTAD in the 1970s, when negotiations on a code of conduct for the transfer of technology (TOT code) were undertaken. Many developing countries were of the view that practices that restrain trade or adversely affect the international transfer of technology constitute abuse of IPRs and have 'pernicious effects on competition'.[11] These ideas were later canalised into Articles 8.2 and 40 of the TRIPS Agreement.

At the time of the TOT code discussions, the positions of Group B (developed countries), Group D (socialist countries) and the Group of 77 (developing countries) diverged radically.[12] In 1985, the nine-chapter draft TOT code[13] was presented to the UN Conference on an International Code of Conduct on the Transfer of Technology at its sixth session.

Chapter 4 was the most controversial part of the draft code; agreement was lacking even on its title. Under consideration were titles proposed by the three groups mentioned above, i.e. 'The Regulation of Practices and Arrangements Involving the Transfer of Technology' (Group B), 'Restrictive Business Practices' (Group D) and 'Exclusion of Political Discrimination and Restrictive Business Practices' (G-77). Chapter 4 enumerated 14 practices for which different modes of analysis were proposed: Group B advanced a 'competition test' to be applied, case-by-case, based on the 'rule of reason' (i.e. assessing anti-competitive and pro-competitive effects of the conduct to see how much efficiency is realised by the conduct),[14] while the Group of 77 considered these practices to be presumptively illegal (per se illegal) and proposed the application of a 'development test' (i.e. assessing how licensing restrictions affect the development of technology-receiving countries when in fact developing countries should be receiving benefits).

The draft Chapter 4 contained the following 14 practices: 1. [Exclusive][15] grantback provisions;[16] 2. Challenges to validity; 3. Exclusive dealing; 4. Restrictions on research 5. Restrictions on use of personnel; 6. Price fixing; 7. Restrictions on adaptations; 8. Exclusive sales or representation agreements; 9. Tying arrangements; 10. Export restrictions; 11. Patent pool or cross-licensing agreements and other arrangements; 12. Restrictions on publicity; 13. Payments and other obligations after expiration of industrial property rights, and; 14. Restrictions after expiration of arrangement.

1.2 Developing countries' concerns during the Uruguay Round negotiations

Under the TRIPS Agreement, Articles 8.2 and 40 refer explicitly to 'abuse of IPRs '. The drafting history of these articles shows that the provisions relating to 'abuse' of IPRs originated in the concern of some of developing countries that the future TRIPS Agreement might establish substantive international standards of IP protection. Articles 8 and 40 were proposed by developing countries during the Uruguay Round (UR) negotiations.[17]

During the UR negotiations, both India and Brazil asserted that IPRs were essentially monopolistic and impeded trade. Therefore, both countries emphasised that the objectives of IP protection should be to safeguard 'public interest' by preventing and deterring[18] possible abusive behaviour and to ensure greater access to technological innovation.[19] Peru argued that '[i]n order to limit the impact of restrictive business practices on trade, a patent or trademark owner should be prohibited from imposing conditions on the licensee'.[20] India said at the time that it was 'only the restrictive and anti-competitive practices of the owners of intellectual property rights that can be considered to be trade-related because they alone distort or impede international trade'[21]. The terms 'restrictive' and 'anti-competitive', however, were never fleshed out.

These thoughts were later enshrined in paragraph 1 of TRIPS Article 8 (Principles), which stated that 'Members may, in formulating or amending their laws and regulations, adopt measures necessary [...] to promote the public interest in sectors of vital importance to their socio-economic and technological development […] '. However, the provision is accompanied by the following condition: 'provided that such measures are consistent with the provisions of this Agreement '.

The Chairman's report to the Group of Negotiation on Goods (GNG) on the status of work in the TRIPS Negotiating Group (the Anell text)[22] listed proposals from developing countries under the letter B (so as to distinguish them from the consensus text and from developed country proposals marked by the letter A). The 'B proposals' dealt with abuses of IPRs in several contexts. For instance, draft Article 8B.4 under Part II (General Provisions and Basic Principles) recognised that: '[…] appropriate measures […] may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or affect the international transfer of technology'. In Part III (Standards Concerning the Availability, Scope and Use of Intellectual Property Rights), Article 9 on the Control of Abusive or Anti-Competitive Practices in Contractual Licences referred to appropriate national legislative measures to prevent or control abusive or anti-competitive practices in licensing contracts deemed to constitute abuses of intellectual property rights or to have an adverse effect on competition in the relevant market. On the other hand, the fear that abuse of IPRs might restrain international trade was expressed in draft Article 6B (Control of Anti-competitive and Trade-distorting Practices) in Part IX (Trade in Counterfeit and Pirated Goods), under Article 2 (Guiding Principles and Norms), which said that 'PARTIES shall co-operate with each other to ensure the free flow of goods and prevent that intellectual property rights are used, through arrangements among enterprises, to create restrictions or distortions to international trade or to engage in anti-competitive practices having adverse effects on their trade […].'

Draft Article 8.2 in Part I (General Provisions and Basic Principles) of the Chairman's Draft Text on Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods of 23 November 1990 (the Brussels text),[23] added to the previous text the phrase 'provided that they do not derogate from the obligations arising under this Agreement'.

In the Brussels text, control of abusive or anti-competitive practices in contractual licences appeared in the context of Article 8, Part II (Standards Concerning the Availability, Scope and Use of Intellectual Property Rights). Its Article 43.1 stated that 'PARTIES agree that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology'. Article 43.2B stated that: 'PARTIES may specify in their national legislation licensing practices or conditions that may be deemed to constitute an abuse of intellectual property rights or to have an adverse effect on competition in the relevant market, and may adopt appropriate measures to prevent or control such practices and conditions, including non-voluntary licensing in accordance with the provisions of Article 34 and the annulment of the contract or of those clauses of the contract deemed contrary to the laws and regulations governing competition and/or transfer of technology.'

This text enumerated – without distinction as to the nature and degree of anti-competitive effect – the following 'practices and conditions [which] may be subject to such measures where they are deemed to be abusive or anti-competitive: (i) grantback provisions; (ii) [no-] challenges to validity; (iii) exclusive dealing; (iv) restrictions on research; (v) restrictions on use of personnel; (vi) price fixing; (vii) restrictions on adaptations; (viii) exclusive sales or representation agreements; (ix) tying arrangements; (x) export restrictions; (xi) patent pooling or cross-licensing agreements and other arrangements; (xii) restrictions on publicity; (xiii) payments and other obligations after expiration of industrial property rights; (xiv) restrictions after expiration of an arrangement'. These 14 items were taken from the draft TOT code, Chapter 4, as we have seen above.

Throughout the drafting process, no serious discussion seems to have occurred as to the meaning of such terms as 'abuse' of IPRs, 'anticompetitive practices' or 'restrictions' in licensing contracts.[24] No explanation is given in any of the UR documents as to why, among the above fourteen practices which may have radically different competitive/anticompetitive effects, only 'challenges to exclusive grantback conditions', 'conditions preventing challenges to validity' and 'coercive package licensing' were retained as examples of 'abuses' or 'anticompetitive practices' in Article 40 of the TRIPS Agreement. The acceptance of these three examples was probably due to the fact that there was a substantial body of cases in the US and the EU, whereas hardly any developing country cases were presented at the UR discussions relating to competition law.

Gervais[25] explains that when attempts were made to define the scope of contractual practices to be dealt with during the Uruguay Round negotiations, there was a possibility of separating the following practices: (a) those which constitute an abuse of IPRs, and/ or (b) those which have an adverse effect on competition. Abuses of intellectual property rights do not necessarily cover the same types of conduct as anti-competitive abuse. In the end, both were retained, leaving vast ambiguities in the scope of Article 40. The criteria for judging (b) differ from those for judging (a). While the former should be based on general competition law principles, the latter may serve as a means to achieve anti-competitive objectives. For example, fraudulent patent procurement or litigation to enforce patents known to be invalid could constitute patent abuse under patent law.

However, further conditions must be met in order to establish these types of conduct as violating competition law. For example, under Section 2 of the Sherman Act in the US, the moving party must show three things: (i) the patentee knowingly and wilfully misrepresented facts to the patent office; (ii) the patent would not have been issued 'but for' the patentee's fraud; and (iii) the patentee has monopoly power or a dangerous probability of achieving it, depending on the nature of the claim.[26] Certain vexatious litigation could be patent abuse but not necessarily anti-competitive abuse. In the US, unmeritorious legal action in patent enforcement proceedings could give rise to antitrust liability.[27] In the EU, only in wholly exceptional circumstances could vexatious litigation constitute an abuse of a dominant position within the meaning of Article 102 of the Treaty on the Functioning of the European Union (TFEU; formerly Article 82 of the Treaty Establishing the European Community (TEC).[28] In AstraZeneca v Commission, the General Court (former Court of First Instance) and the Court of Justice of the European Union (CJEU) held that AstraZeneca's deliberately misleading representations to various patent offices and courts of several EU Member States to obtain extended patent protection for Losec (omeprazole)[29] to secure exclusivity for as long as possible fell outside the scope of competition on the merits and constituted abuse.[30]

The Dunkel text of 20 December 1991[31] added the phrase 'consistently with the other provisions of this Agreement', which made the draft close to Article 40 of the TRIPS Agreement.

1.3 What the TRIPS Agreement says

According to Article 8.2 of the TRIPS Agreement, 'appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology '. This provision suggests that the drafters drew a distinction between abuse of IPRs and practices that unreasonably restrain trade or adversely affect the international transfer of technology.

While Article 8.2 deals with abuse of IPRs and practices with negative impacts on international trade and transfer of technology against which Members may take measures, Article 40 deals specifically with 'anti-competitive' licences and states in paragraph 1 that: '[…] some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology'. Article 40.2 provides that '[…] nothing in this Agreement shall prevent Members from specifying in their legislation licensing practices or conditions that may in particular cases constitute an abuse of intellectual property rights having an adverse effect on competition in the relevant market (author's emphasis)'. Article 40.2 refers to measures to remedy abuses of intellectual property rights that have an adverse effect on competition in the relevant market. It further states that '[…] a Member may adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control such practices, which may include for example exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing, in the light of the relevant laws and regulations of that Member'. Article 40.3 of the TRIPS Agreement provides for consultation and cooperation among Members if abuse, as defined by Article 40, is practiced in the requesting country.

'Abuse' is not defined in the TRIPS Agreement, and there is therefore considerable flexibility in interpreting the term. However, Members do not have unlimited discretion in legislating such national measures, as both Articles 8.2 and 40.2 specify that they must be applied 'consistently with the other provisions of this Agreement '. In defining 'abuse of IPRs', national legislations should therefore be respectful of other TRIPS provisions. The TRIPS rules to be taken into account include: the National Treatment principle in Article 3, which requires WTO Members to accord to the nationals of other Members treatment no less favourable than it accords to its own nationals with regard to the protection of intellectual property; and the principle of transparency in Article 63, which requires WTO Members to provide other Members with information pertaining to the subject matter of the TRIPS Agreement concerning the availability, scope, acquisition, enforcement and prevention of the abuse of intellectual property rights.

The wording of Article 40.2 itself imposes certain criteria to assessing whether the terms in the contract are anti-competitive abuse of IPRs. It refers to restrictive conditions 'in particular cases' that have 'an adverse effect on competition in the relevant market'. This means that anti-competitive effects are measured within a market of competing (substitute) technologies or products established as 'relevant'.

Argentina and the US agreed in the WTO disputes on Argentina – Patent Protection for Pharmaceuticals and Test Data Protection for Agricultural Chemicals and Argentina – Certain Measures on the Protection of Patents and Test Data, that if any of the situations defining 'anti-competitive' practices in Article 44 of its Law on Patents and Utility Models were found to exist, such a finding would not in and of itself warrant an automatic determination that a patent owner is engaging in an 'anti-competitive' practice.[32]

During the term of protection, a right holder could raise the price of his or her technology above the competitive level. A 'competitive level' means prices at or near marginal cost (additional costs required to produce the next unit). Fixed cost does not directly affect the pricing decision. On the other hand, fixed cost (including sunk cost) affects entry conditions. Hence, fixed cost indirectly affects prices through changes in the market structure. However, if a similar technology or product is available, the right holder cannot exercise market power and is obliged to compete. The market power of a patented product depends on the strength (in scope and validity) of the patent in relation to competing products. Thus, a patent does 'not necessarily confer market power upon the patentee'[33] or automatically raise the price of the patented products.[34]

For the purpose of competition analyses, 'relevant market' is determined in terms of product (goods and services) and geographical markets. Technology markets or R&D markets could also be singled out independently from goods or services markets. Depending on the particular nature of the case, markets for technology[35] or markets for research and development (innovation markets) could also be analysed. In its analysis of licensing behaviour in the context of licence screening and from the point of view of unfair trading practices, the Japan Fair Trade Commission (JFTC) tended to refer to technology markets without determining the relevant market, as we will examine later in this paper.

The scope of intellectual property to which competition law is applied differs in the laws and regulations of each country. For example, US antitrust laws do not provide for an IPR exemption. However, 'rule of reason' analyses are applied in cases of antitrust enforcement relating to IPRs. According to those analyses, 'naked', collective price or output restraints are unlikely to be considered illegal if the restraints in licensing terms are found to contribute to economic efficiency.[36]

In the EU, the TFEU does not provide specifically for IPR exemption. Articles 101(1)[37] of the TFEU (formerly Article 81(1) of the TEC) prohibits agreements that prevent, restrict or distort competition, but Article 101(3) TFEU allows for exemption of those agreements whose benefits sufficiently outweigh the anti-competitive effects.

Only a few countries' competition laws provide for explicit exemption for IPRs. In Japan, the AMA specifies in Article 21 (former Article 23 prior to the Amendment in 2000 – see Annex II) under Chapter VI on Exemptions, that the provisions of this Act shall not apply to such acts 'recognisable as the exercise of rights under the Copyright Act, Patent Act, Utility Model Act, Design Act or Trademark Act'.[38] It remains difficult to discern whether or not the exercise of the IPRs in question 'deviates from or runs counter to the purposes of the IPR system', which themselves vary according to specific contexts. Furthermore, there have been interminable debates as to who examines, and at what stage, whether certain exercise of rights is recognisable under IPR laws.

In China, Article 55 of the Antimonopoly Law of 30 August 2007 stipulates that: 'This Law does not govern the conduct of business operators to exercise their intellectual property rights under laws and relevant administrative regulations on intellectual property rights; however, business operators' conduct to eliminate or restrict market competition by abusing their intellectual property rights shall be governed by this Law'.

Russian competition law does not explicitly mention IPR exceptions. However, the country's competition authorities consider that the law is not applied unless licences to use the intellectual property lead to restrictions on competition, or if its acquisition, use or infringement constitutes unfair competition.[39]

1.4 Examples of anti-competitive abuse in Article 40 TRIPS

Article 40 of the TRIPS Agreement refers to exclusive grantback conditions, i.e. conditions preventing challenges to validity and coercive package licensing as examples of practices with possible anti-competitive effect in the relevant market.

Some developing countries have adopted specific provisions in their patent laws that could render these practices per se illegal. The consequences might involve the nullification of the contract, and/or constitute grounds for issuing a compulsory licence. For example, Section 84(7)(iv)(c) of the Indian Patent Act refers to the above three practices as justifying compulsory licenses, because they give rise to situations where 'the reasonable requirements of the public shall be deemed not to have been satisfied'. Section 140(1)(iii)(d) of the Act further stipulates that the same practices render the licensing contracts void. Section 140 enumerates other conditions that may nullify the contract. Section 141(2), however, clarifies that these provisions shall be without prejudice to any right of determining a contract exercisable apart from this section. We have seen that the industrial property law of Brazil contains provisions rendering grantback clauses illegal (see Note 9).

An exclusive license is granted by a licensor to the licensee to perform a specific activity (distribution in a territory, for example) with respect to the licensed intellectual property to the exclusion of others, including the licensor himself. Exclusivity protects the licensee from free-riding by other licensees, and the licensor may thus increase the licensee's incentive to invest in the licensed technology. However, granting exclusivity creates inherent tension between the licensee and licensor, as the licensee wishes to be licensed in broad terms, whereas the licensor wishes to grant the narrowest licence possible.

Territorial and field-of-use restricted licences are generally accepted by licensees because the owner of intellectual property may grant limited licences or no licence at all. Such a licence may raise antitrust concerns if the licensees themselves or the licensor and its licensees are in a horizontal relationship.[40] Most competition authorities in developed countries evaluate the pro-competitive and anti-competitive effects of those licensing terms in vertical agreements.[41]

How patent licensing is designed could relate very closely to research and development (R&D) rivalry between firms.[42] It could also be a factor when there are opposing R&D policies, as we will examine in Section 2 of this paper. In the context of multiple innovations, licensing may be used to strategically deter a rival's R&D, which is more likely to occur when the firms' costs differ widely.[43] Whether licensing is privately and/or socially beneficial and whether it leads to a higher level of innovation depends on the circumstances of each case and not on the form of the restrictive clauses.

Effects of licensing on the rate of (ex post) diffusion of new technologies and on private firms (ex ante) interact in surprisingly divergent ways. According to Shapiro, more work is also needed on information problems facing patent licensing,[44] but not much study has been undertaken on this subject.

As for the three examples of anti-competitive abuse in Article 40.2 TRIPS, economic analyses of these restrictions make a rigid per se determination quite unreasonable, as we will see below (see also Annex I).

Exclusive grantback clauses

Grantback provisions in licensing agreements oblige the licensee to give back to the licensor the right to use any patented improvement technologies that the licensee realises on the patentee's original invention. The licensee typically agrees to disclose and transfer improvements made (and related know-how acquired) in the licensed technology during the licensing period. Grantback provisions are therefore related to the question of how to allocate the ownership and use thereof of improvement inventions in the process of sequential innovation. The use or ownership of improvement patents or know-how becomes an incentive for both the licensor and licensee and therefore creates a source of conflicts.

Whereas economic analysis today emphasises determination of the optimal pricing for subsequent innovation that will allow licensors and licensees to continue making investments in R&D,[45] competition analysis concerns the effects of competition in the relevant market.

'Exclusive' grantback provisions provide the licensor an exclusive right to use or sublicense any patented improvements, while the licensee retains only a non-exclusive right to practice the patented improvements. Licensing itself has pro-competitive effects by allowing the use or production of the patented technology. The licensor normally delineates conditions to manage the potential loss of competitive position due to learning and follow-on invention effects of the licensee. This, however, may also lower the licensee's incentives to further invest in the licensed technology thereby inducing a loss in overall benefits of technology licensing. Fierce competition therefore arises between licensors and licensees for remunerating R&D.

Thus, only a close look into the effects of grantback clauses on competition would allow a proper assessment of these clauses.

Historically, US courts and antitrust authorities have given the following reasons to explain why these restrictions may raise anti-competitive concerns under the Sherman Act.

Prior to 1947, grantback clauses were never found to be illegal by US courts.[46] In 1945, in Hartford-Empire Co. v United States[47] the Supreme Court disagreed with the Court of Appeals for the Second Circuit (Judge Learned Hand), finding that the vendor had used its basic patent monopoly to acquire control over the improvement patents that the vendee would have had and, based on the misuse doctrine,[48] holding the conduct to be illegal per se. However, in 1947, in Transparent-Wrap Machine Corp. v Stokes & Smith Co. (TransWrap),[49] which concerned a grantback provision that required the licensee to assign to the licensor all patents for improvements to a patented packaging machine and to the licensee a non-exclusive, royalty-free license on the improvements, the Supreme Court made a series of remarks which left the Court some latitude for interpretation in subsequent cases. The Court noted that grantback clauses could raise antitrust concerns by discouraging the licensee from pursuing further inventions, but stated that: '[…] whether that opportunity to exploit the improvement patents would be increased but for the agreement depends on vicissitudes of business too conjectural on this record to appraise'.[50] The Supreme Court only stated that grantback clauses could conceivably be employed with the purpose or effect of violating antitrust laws and said that '[a]s patents are added to patents, a whole industry may be regimented. The owner of a basic patent might thus perpetuate his control over an industry long after the basic patent expired'.[51]

Hovenkamp et al. point out that grantback clauses reflect marketplace risks at the time the parties negotiated and that the licensee who accedes to an overly protective grantback provision during the waning years of the licensed patent generally does not deserve solicitude.[52] These authors nevertheless underline the potential anti-competitive effect of exclusive grantbacks in that numerous improvements made by different licensees are accumulated by the original patentee, which may create market power for him. The important point, according to the authors, is that plausible claim of injury to competition must be shown.

Gilbert and Shapiro suggest a list of factors developed by US lower courts to be considered in evaluating the effects of grantbacks. These include (1) whether the grantback is exclusive or non-exclusive; (2) if exclusive, whether the licensee retains the right to use the improvements; (3) whether the grantback precludes, permits, or requires the licensor to grant sublicenses; (4) whether the grantback is limited to the scope of the licensed patents or covers inventions that would not infringe the licensed patent; (5) the duration of the grantback; (6) whether the grantback is royalty-free; (7) the market power of the parties; (8) whether the parties are competitors; and (9) the effect of the grantback on the incentive for developmental research.[53] In addition to this list, these authors distinguish between retrospective and prospective grantbacks. They explain that retrospective grantbacks are akin to royalty-free cross-licenses and raise little anticompetitive concern, while prospective grantbacks, by contrast, could undermine incentives to innovate and harm competition by attenuating the licensee's rights to its own future innovations.

Gilbert and Shapiro refer to the investigation by the Department of Justice of a grantback-type of condition in Microsoft's contracts with original equipment manufacturers (OEMs). Those contracts required Microsoft's licensees to agree not to bring action against Microsoft or other licensees of Microsoft's software products for infringement of patents owned by the licensee. According to these authors, the contract provisions applied to a large share of the personal computer OEM market. The case raised antitrust concerns because of Microsoft's strong position in selling operating systems for PCs. However, the authors recognised there were plausible efficiencies in this agreement. It promoted cross-licensing of potentially blocking innovations and thus increased the number of PCs running Windows. It also helped prevent potentially costly or market-disrupting litigation.[54]

Under EU competition law, only exclusive grantback conditions are scrutinised carefully. In its Technology Transfer Block Exemption Regulation (TTBER) which was in force from April 2004 to April 2014 (2004 TTBER),[55] the European Commission differentiated grantbacks on severable improvements from those on non-severable improvements. 'Severable improvement' means an improved technology that the licensee has invented which can be exploited without infringing on the licensed technology (Article 1(1)(n), 2004 TTBER), and 'non-severable improvement' signifies an improved technology which cannot be exploited without infringing on the underlying licensed IPRs. Under the 2004 TTBER, non-exclusive grantbacks and grantbacks for non-severable improvements were covered by the safe harbour if other conditions were fulfilled (Article 2 of the 2004 TTBER). 'Safe harbour' means that Article 101(1) of the Treaty on the Functioning of the European Union (TFEU) prohibiting anti-competitive agreements is not applied to technology transfer contractual clauses. According to the 2004 TTBER, only exclusive grantbacks on severable improvements could not benefit from the safe harbour provision (Article 5(1)(a) and (b), 2004 TTBER). The argument for distinguishing non-severable improvements from severable ones was that the former could be exploited by the licensee only with the licensor's permission (point 109, 2004 TTBE Guidelines).

Tension between cooperation and competition tends to intensify and shift towards competition only when the licensed technology is the firm's core capability and when the licensee and licensor operate in the same industry.[56] A grantback clause may also ensure that efficient licensing takes place when it would not do so without such a clause.[57] Under the 2004 TTBER, the Commission assumed that, once the initial technology has been licensed, the licensor cannot be hurt by non-severable innovation, but may be hurt by severable innovation. With severable innovation, relatively costly innovation could be discouraged by the inclusion of a grantback clause.

The new 2014 TTBER[58] no longer sets out the distinction between severable and non-severable improvements, and stipulates that no exclusive grantbacks are covered by the safe harbour provision (Article 5(1)(a) of the 2014 TTBER). In other words, exclusive grantbacks are not block-exempted and agreements containing these clauses would be assessed individually. The main reason seems to be that the Commission believes that exclusive grantbacks on non-severable improvements could have negative effects on follow-on innovation comparable to those on severable improvements.

The Commission seems to have reached the conclusion that the past argument for the distinction between severable and non-severable improvements was not convincing, as the licensee is generally able to exploit respective improvements without needing an additional permission of the licensor.[59]

Coercive package licensing

'Package licensing' means that the grant of one license is directly or indirectly conditional upon the acceptance of another. According to the US 1995 IP Guidelines, a package license may promote efficiencies and 'if a package license constitutes a tying arrangement, the Agencies will evaluate its competitive effects under the same principles they apply to other tying arrangements'.[60] US Courts have held that tie-ins of two separate products or services are per se unlawful when the seller has sufficient economic power in the tying product to restrain competition in the tied product's market and when a not insignificant amount of interstate commerce is affected. The US 1995 IP licensing guidelines require a showing that the arrangement actually has adverse effects in the relevant market for the tied product and an explicit weighing of efficiencies and anticompetitive effects.

Article 40.2 of the TRIPS Agreement refers to 'coercive' package licensing. On this question, Gilbert and Shapiro state that: 'Relying on a distinction between "voluntary" agreements and "coercion" raises severe problems for coherent economic analysis. As we have shown, buyers and sellers may voluntarily enter into licensing arrangements that have adverse consequences on competition and on overall economic welfare'.[61] In Japan, the JFTC considered that domestic OEMs were 'forced' to enter into licensing agreements with Microsoft Corporation (MS) because MS had a world-wide share of 90 percent in the operating system market (see Section 3.5 of this paper).

The US Supreme Court in Zenith Radio Corp. v Hazeltine Research Inc.[62] distinguished royalties based on unpatented goods for convenience of the parties from those resulting from the patentee's coercion or bargaining power. The Court concluded that the patentee did not have the right under US patent laws to insist on royalties covering total production. Following this judgment, Hovenkamp et al. draw attention to the question of when coercion, distinguished from convenience, could cause competitive harm.[63] They discuss the criteria by which lower courts examined the difference between convenience and coercion, which is prohibited by tying law. The criteria are: whether the decision was unilateral or based on mutual convenience,[64] or whether the terms of the contract in question represented an efficient alternative to computing royalties by some alternative means that measured the actual use of the patent.[65] The authors point out the difficulties of justifying these criteria economically or otherwise. They emphasise that an antitrust violation requires proof of injury to competition, whereas patent misuse may be predicated on coercion alone.[66] Taking into account various possible economic impacts of coercion, they argue that there are some foreclosure concerns that depend mainly on the extent to which the arrangements exclude alternative licensors from a relevant market or limit their sales opportunities. This analysis is largely similar to foreclosure analysis in tying and, more particularly, 'exclusive dealing' cases. Hovenkamp et al. emphasise the distinction between coercion (e.g., unilateral, unjustified royalty formula) and injury to competition. While patent misuse may be predicated on coercion alone, an antitrust violation requires injury to competition, which is relatively rare. According to these authors, a coercive package license does not ordinarily injure competition unless the license results in market foreclosure. 'In most royalty extension cases the claimed injury is simply that the purchaser/licensee must pay more than would have been required under a less coercive arrangement'.[67]

Package licensing could also be seen as a form of exclusive dealing. Specific practices that could be questioned under competition law include such things as licensing agreements that require royalty payments after the patent term; royalty payments on goods that were never patented or whose patents are found invalid; or royalty payments that are discriminatory. In Zenith Radio Corp. v Hazeltine Research Inc.,[68] the package licenses in question covered several hundred existing patents and included future patents that the licensor would develop without adjustment of individual royalties. The Supreme Court held that some of these practices amounted to patent 'misuse'. In United States v Loew's Inc., the Supreme Court held that block booking of copyrighted feature motion pictures for television exhibition was an illegal tying agreement. The Court found that conditioning the license or sale of the right to exhibit one or more feature films on the acceptance of unwanted or inferior films was illegal under Section 1 of the Sherman Act, even in the absence of any combination or conspiracy between the distributors and any monopolisation or attempt to monopolise.[69] There is, however, scepticism in the US as to this legal precedent. Hovenkamp et al. assert that illegality of post-expiration royalties or royalties on invalid patents is justifiable only as a construction of the Patent Act. Remedies should be provided for patent 'misuse' (i.e., unenforceability) under that legislation, not antitrust laws and or the Sherman Act.[70]

Thus, the term 'coercive package licensing' in the TRIPS Agreement is unclear, not only due to the wide range of meanings that the term 'coercion' could have, but due also to the fact that various conduct, whether or not it has effects on competition or not, is included in this category of licensing.

No-challenge to validity clause and public interest

Article 40.2 of the TRIPS Agreement cites 'conditions preventing challenges to validity' as an example of 'abuse of intellectual property rights having an adverse effect on competition in the relevant market'. By establishing a 'no-challenge clause', the licensee agrees not to challenge the licensed patent, although the patent office does not dismiss trial for patent invalidation for the sake of the no-challenge clause. No-challenge clauses are generally considered against public policy pertaining to patent law, but not necessarily under competition law.

In the US, courts have dealt with the no-challenge obligation (i.e. the obligation not to challenge the validity of a patent or know-how) in accordance with the common law of contracts and the federal law of patents. The Supreme Court in Automatic Radio Manufacturing Co. Inc. v Hazeltine Research Inc.[71] held that all ideas in general circulation be considered as common goods unless they are protected by a valid patent. The technical requirements of contract doctrine must yield to the demands of the public interest in situations involving the negotiation of a license after a patent has been issued. At the time, licensee estoppel was the norm, but that rule was reversed by the Supreme Court in Lear v Adkins (see Box 1).[72]

Box 1 US Cases Concerning the Right to Challenge the Validity of Patents despite Licensing Contract

<u>Lear Inc. v Adkins, 395 US 653 (1969)</u>

Lear hired John Adkins in 1952 to help solve gyroscope development problems. The parties agreed that '[a]ll new ideas, discoveries, inventions, etc., related to […] vertical gyros become the property of Mr. John S. Adkins '. In return, the inventor promised to grant Lear a license to all ideas he might develop 'on a mutually satisfactory royalty basis', which he did in 1954. Adkins filed a patent application covering these improvements and entered into licensing negotiations with Lear to establish a royalty rate. He and Lear agreed that if 'the US Patent Office refuses to issue a patent on the substantial claims or if such a patent […] is subsequently held invalid', Lear would have 'the right forthwith to terminate the specific license so affected or to terminate this entire Agreement'. While a patent was issued to Adkins only in 1960, Lear stated in 1957 that a Patent Office search had disclosed a patent which fully anticipated Adkins' discovery, and that it would no longer pay royalties on the gyros produced at its Michigan plant, although it continued to pay royalties on those produced at the California plant until 1959. Upon receipt of his patent, Adkins brought suit in the California courts, claiming that Lear had breached its quasi-contractual obligations. Although Lear tried to raise patent invalidity as a defense, the trial judge held that Lear was estopped by its licensing agreement from questioning the licensor's patent. The suit eventually wound up at the Federal Supreme Court, which concluded that Lear must be permitted to avoid the payment of all royalties accruing after Adkins' 1960 patent if the company could prove patent invalidity for overriding federal policies. The Court explained that if, by the doctrine of estoppel, licensees were required to pay royalties during the challenge to the patent validity in the courts, the licensor would be given an economic incentive to devise dilatory tactics to delay the court decision. According to the Court, this would frustrate the aims of federal patent policy, particularly in scientific fields where invention is proceeding rapidly. Furthermore, the Court stated that enforcing this contractual provision would undermine strong federal policy favouring the full and free use of ideas in the public domain (395 US 674).

MedImmune Inc. v Genentech Inc., 127 S. Ct. 764, 777 (2007)

Genentech held the patent for Cabilly I (a process using cell cultures to manufacture human antibodies) and later obtained a patent for Cabilly II. MedImmune was a licensee for Cabilly I and then for II. Genentech informed MedImmune that it would have to pay royalties on one of its products, Synagis, which uses Cabilly II. In turn, MedImmune sued Genentech, claiming that the patent was invalid and unenforceable. Meanwhile, however, MedImmune kept paying the royalties. The question as to whether a licensee retained the right to challenge a licensed patent, or whether this right was forfeited upon signing of the license agreement was discussed. Genentech argued that since MedImmune was still paying royalties on the patent, there was no controversy. MedImmune countered that it would be unreasonable for the company to be required to break its contractual obligations by stopping royalty payments before suing. This might jeopardise MedImmune's legal rights to one of its best-selling products. The Supreme Court reversed the Court of Appeals of the Federal Circuit and ruled that MedImmune was not required to break its contract before suing, because '[t]he rule that a plaintiff must risk treble damages and the loss of 80 percent of its business before seeking a declaration of its actively contested legal rights finds no support in Article III'. Article III of the US Constitution limits the jurisdiction of federal courts to 'cases or controversies'. According to the Court, the licensee is not required, insofar as Article III is concerned, to break or terminate its 1997 license agreement before seeking a declaratory judgment in federal court that the underlying patent is invalid, unenforceable, or not infringed.

The chapter on Enforcement of Invalid Intellectual Property Rights of the 1995 US IP Guidelines states explicitly that '[t]he Agencies may challenge the enforcement of invalid intellectual property rights as antitrust violations'.[73] However, the guidelines refer neither to no-challenge nor to non-assertion clauses, probably because these restrictive clauses concern public policy issues based more on patent law than on antitrust law. The 2007 report entitled Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition published by the DOJ and the FTC[74] seems to classify both non-assertion and no-challenge clauses primarily as public policy issues based on patent law, but also as a source of potential competition problems. The report states that '[i]nvalid patents impair competition [...] and as a matter of patent policy, challenges to their validity are encouraged'.[75] According to the report, '[w]hile patent licensing in general should be encouraged because it allows the efficient exploitation of technology and promotes competition and innovation, public policy strongly favors ridding the economy of invalid patents, which impede efficient licensing, hinder competition, and undermine incentives for innovation. Public policy also favours the swift resolution of patent litigation on terms not harmful to competition'.[76]

In the recent Supreme Court decision in FTC v Actavis Inc.,[77] the FTC sought a review of an Eleventh Circuit ruling that had rejected the agency's challenge on the grounds that antitrust law did not breach such agreements unless the contract rights obtained by the patent holder exceeded the scope or duration of the patent. The Court rejected the FTC's argument that such litigation settlements, called 'pay for delay', were 'presumptively unlawful', and the case was sent back to a lower court for a 'rule of reason' analysis.

While a large and unexplained payment from the originator of the generic may signal possible antitrust problems, the rule of reason analysis under the Hatch-Waxman Act, paragraph IV (21 USC §355(j)(2)(A)(vii)(IV)) would necessitate consideration of a series of complex factors such as the cost of the settlement against potential litigation costs, the strength of the patents at issue and competitive justifications for the payment.

Non-assertion clauses are another tool often used in settlement agreements in patent litigation. Such clauses typically stipulate that a contracting party will not assert present or future patents or other IP rights against another contracting party, even if that party engages in infringing use. In a situation of conflict between the licensor and the licensee(s), non-assertion agreements or cross-licensing may serve as a means of settling disputes or avoiding one party exercising IPRs to prevent the other party from exploiting its own technology. The non-assertion obligation sometimes extends to a third person designated by the licensor.

Non-assertion clauses serve some of the functions of a licence or cross-licence; that is, they allow firms to avoid litigation, which reduces transaction costs and solves problems arising from blocking patents. This contributes to efficiencies, as well as provides a means of avoiding the application of a Most-Favoured Nation clause in another licensing agreement. However, non-assertion clauses may unreasonably strengthen the position of the licensor or discourage innovation by limiting the ability of licensees to collect rents on their own IP, particularly when they are unlimited in scope or in duration, or when their scope is more extensive than a licence.[78] The negative effects of non-assertion clauses could be avoided by limiting the scope of IPRs covered by them.

Neither non-assertion nor no-challenge clauses are mentioned in the 1968 Nine No-Nos or in the 1995 IP Guidelines.[79] As mentioned earlier, the 2007 DOJ-FTC Enforcement Report seems to classify both non-assertion and no-challenge clauses primarily as public policy issues based on patent law: 'Invalid patents impair competition […], and as a matter of patent policy, challenges to their validity are encouraged'.

Considering that the anti-competitive effects of no-challenge clauses can be much more limited than those of non-assertion clauses, it is not clear why Article 40.2 of the TRIPS Agreement lists such clauses among the three examples of abuse of intellectual property rights having an adverse effect on competition in the relevant market.

The EU today seems to analyse no-challenge clauses both from the public interest and the competition points of view. The 2004 TTBER counts the no-challenge clause as one of the restrictions that do not fall under the safe harbour of the TTBER.[80] The 2004 TTBE Guidelines explain that 'in the interest of undistorted competition and in conformity with the principles underlying the protection of intellectual property,' invalid intellectual property rights should be eliminated. Although the rights afforded to patent holders are highly uncertain[81] – and invalid patents exist even without their holder's knowledge – they could stifle innovation rather than promote it. The Court of Justice of the European Communities (ECJ, today CJEU) confirmed in Windsurfing International v Commission[82] and in Bayer v Süllhöfer[83] that the licensee's obligation not to challenge the validity of the patents covered by the licence restricts competition within the meaning of Article 101(1) TFEU. This article is likely to apply to no-challenge clauses where the licensed technology is valuable and therefore creates a competitive disadvantage for undertakings that cannot use it, or are only able to do so against payment of royalties'.[84]

Termination clauses, which allow the licensor to terminate the agreement in case the licensee challenges the validity of the licensed intellectual property rights, are currently covered by the safe harbour of the TTBER (provided that the other conditions of the 2004 TTBER safe harbour are fullfilled). However, the 2014 TTBER aligns the treatment of termination clauses with its treatment of no-challenge clauses: practice has shown that in specific situations these clauses have the same chilling effect as no-challenge clauses, in particular in the case of standard essential patents (see Annex III) or when the licensee has already incurred considerable sunk costs and cannot easily switch to another technology.

Under the 2004 TTBER, non-assertion agreements are treated similarly to licensing agreements and are referred to, together with settlement, only in the context of cross-licensing. They are viewed as less restrictive of competition 'since [they] allow the parties to exploit their technologies post-agreement'.[85] However, the TTBER warns that when parties are entitled to use each other's technology by an agreement that extends to future developments, it is necessary to assess the agreement's impact on the parties' incentive to innovate.[86] In the context of a settlement and non-assertion agreement, no-challenge clauses are generally considered to fall outside Article 101(1) TFEU.[87] Substantive changes are introduced in the 2014 TTBE Guidelines in the area of settlement (see Section 2.10 of this paper).

2. A CASE STUDY OF LICENSING REGULATION BASED ON 'UNFAIRNESS'

2.1 The origins of Japanese licensing screening

The examples above are contemporary ways of evaluating licensing agreements that evolved over many years, mostly in the US and the EU (see Annex I). Japan's licensing review differs from these examples in that the country's approaches evolved within its technology introduction policy, as we will examine below.

The initial version of the Japanese Antimonopoly Act (AMA), elaborated under US leadership, included a provision allowing the Japan Fair Trade Commission (JFTC) to look into international contracts to ensure that Japanese companies would not participate in international cartels. Parallel to this, as part of the reconstruction policy after World War II, the Ministry of Finance introduced a system to control capital flows. Within this, the JFTC came to regulate licensing contracts between domestic and foreign companies. Soon afterwards, the AMA was modified to allow the JFTC to screen international licensing contracts with the aim of prohibiting unfair trade practices (see Annex II).

2.2 Fairness criteria

The economic principles in the Potsdam Declaration of August 1945[88] emphasised the importance of 'eliminating the present excessive concentration of economic power as exemplified in particular by cartels, syndicates, trusts and other monopolistic arrangements'.[89] Japan adopted its competition law (AMA) in 1947 under the US drive to democratise the Japanese economy.

In November 1945, the Basic Directives of the General Headquarters Supreme Commander for the Allied Powers (GHQ/SCAP), in its chapter on the Democratisation of Japan's Economic System, referred to the 'termination of international cartels and restrictive international contracts'[90] Thus, Article 6 of the Prohibition of Private Monopolisation and Maintenance of Fair Trade (AMA, Note 7), promulgated in 1947, prohibited entrepreneurs to 'enter into an international agreement or an international contract which contains such matters as fall under unreasonable restraint of trade or unfair trade practices.' Article 6 of the AMA originally aimed at preventing Japanese companies from participating in international cartels.

During this initial period, the JFTC took a keen interest in international agreements. For instance, it initiated proceedings against 20 licensing agreements between 1947 and 1951. These agreements contained ten cases of restricting export markets; one case of restricting export volumes and prices; sixteen cases of restricting licensees from dealing with competing products or using technologies; five cases of restricting licensees from purchasing raw materials; one case of imposing resale price maintenance in the licensee's markets; three cases of restricting the handling of improved technologies on the licensed technologies; and four cases of unreasonable grounds for taking royalties (such as imposing payments whether or not the licensed technologies or blueprints were actually used, or obliging payments for using other technologies similar to those agreed-upon in the licensing agreements).[91]

The Japanese AMA was primarily intended to deal with anti-competitive practices such as 'unreasonable restraint of trade'[92] (agreements among competitors, including egregious cases of cartels engaged in price fixing, quantitative restrictions, market sharing and bid rigging), 'private monopolisation'[93] (conducts that restrain competition in a market, excluding other business or controlling others' business activities) and anti-competitive mergers.[94] However, the AMA also provides rules relating to 'unfair trade practices', which, contrary to the United States' original intention, became the main focus of the JFTC'senforcement activities.

AMA Article 19 stipulates that no entrepreneur shall employ 'unfair trade practices'. The term refers to specific categories of pre-determined practices, some of which are defined under AMA Article 2(9) subparagraphs (i)–(v).

Article 19 was modelled after Section 5 of the US Federal Trade Commission (FTC) Act, which prohibits unfair methods of competition and unfair or deceptive acts or practices in interstate commerce.[95] However, the enforcement practice of AMA Article 19 took a completely different path from Section 5 of the FTC Act. The enforcement of Section 5 of the FTC Act was drafted independently but in support of the principles contained in Sections 1 and 2 of the Sherman Act. In contrast, AMA Article 19 is an integral part of the Antimonopoly Act. It has been applied in ways that have created some confusion, if not contradiction, vis-à-vis AMA Article 3 concerning the prohibition of private monopolisation (Article 3, first part) and unreasonable restraints of trade (Article 3, second part). For Article 3, 'substantial restraint of competition' (SRC)[96] has been the key requirement that warrants a high standard of proof. The Article 19 requirement of 'fair competition order' (which is not defined in the AMA) allows preventive or incipient intervention. Only a low standard of proof is therefore required for determining illegality. In fact, the JFTC did not apply the first part of Article 3 (prohibition of private monopolisation) to IPR-related cases until recently.[97] Article 19 (prohibition of unfair trade practices) is easier to apply than Article 3, because the standard of proof is much lower in Article 19 cases, which concern particular conduct and not the competitive effects on the market.[98]

The JFTC has used Article 2(9)(vi), which empowers it to designate 'unfair trade practices', to establish both general and specific lists of conduct, called 'designations'. The Article contains examples of unfair trade practices, comprising a wide range of discriminatory, restrictive or coercive behaviours which 'tend to impede fair competition'. For example, 'abuse of superior bargaining position' is listed under Article 2(9)(v) and defined as '[t]aking any act specified in one of the following, unjustly in light of the normal business practices by making use of one's superior bargaining position over the other party'.

The prohibition of 'unfair trade practices' has targeted 'unfair' behaviour between firms of unequal bargaining power, mainly in those sectors where hierarchic ethics still prevail. Whereas Article 3 concerns restriction of competition in the relevant market, Article 19 aims at keeping 'fair competition order' among firms of disparate strength.

For a conduct to qualify as an 'unfair trade practice', it must fall within the scope of activities such as tie-in, resale price maintenance, exclusive dealings and refusals to deal set forth in subparagraphs (i) to (vi) of AMA Article 2(9).[99] As 'fair competition' is not defined, it is not entirely clear what should be demonstrated to prove or disprove that a particular conduct impedes fair competition at present and in the future (see below for the JFTC Microsoft non-assertion clause case identified by the JFTC in 2004 as dealing on restrictive terms).[100]

All 'unfair trade practices' were punished only by cease-and-desist orders without any pecuniary or criminal sanctions until the AMA amendments of 2009.[101]

Article 6 of the 1947 AMA also prohibited agreements that restrict the transfer of scientific and technological knowledge or information that is needed in business activities. However, the 1949 amendments deleted this provision, and the permit system for foreign licensing was changed to an ex post notification system to facilitate licensing of foreign technology.

With the AMA[102] amendments of 1953, Article 6(1) came to read that 'no entrepreneur shall enter into an international agreement or an international contract which contains such matters as fall under unreasonable restraint of trade or unfair trade practices'. Thus, establishing international contracts with stipulations amounting to 'unfair trade practices' became illegal under Article 6. It avoided the extraterritorial application of AMA Article 19 and allowed the JFTC to issue cease-and-desist orders only to Japanese licensees. Japan's licensing regulation was established based on Article 6(1).

2.3 Capital flow control by the Ministry of Finance

The Japanese government introduced the Foreign Capital Control Law in 1950 to encourage the inflow of foreign capital. All technology introduction contracts covering more than one year were required to receive authorisation from the ministers concerned prior to their conclusion.

Under this law, technology transfer agreements were called technical assistance agreements. The conditions under which these agreements were allowed were laid down in Article 8 of the Foreign Capital Control Law. In practice, the main criteria were that they must (1) improve Japan's balance of payments, (2) not contain unfair or illegal clauses, and (3) contribute to the reconstruction of the Japanese economy.

The JFTC collaborated with the Ministry of Finance to implement these objectives, but the Foreign Capital Control Law itself stated that the particular competence of the JFTC was based on the AMA.[103] This was done with quite different intentions than those of the US, which had supervised the elaboration of AMA Article 6 mainly to prevent international cartels.

The JFTC carried out ex ante screening of licensing agreements until 1967. Between 1952 and 1960, the JFTC received total 1,690 international contracts for approval, of which 1,034 (76.8 percent) were technology introduction contracts, 110 were debt contracts (8.2 percent), and 69 were purchasing contracts (5.2 percent). Only 1.4 percent, or 19 agreements, were joint venture contracts.[104]

2.4 Evolution of the Objectives for Licensing Contract Regulation

The motives and justifications underlying the JFTC's control of licensing terms evolved with the political and economic circumstances of Japan's post-war history. At the initial stage, the JFTC's objective was to strengthen the bargaining position of licensees vis-à-vis licensor companies, which tended to be powerful multinationals. In so doing, the JFTC is said to have taken a long-term perspective, which held that licencing should not just earn income from producing, but should also be based on a vision of future markets and activities. This objective gradually shifted to support the country's overall policy of encouraging local innovation by looking into specific terms in the notified licences. Thus, the control of grantback clauses became important for licensees aiming at technology improvements.

From 1953 on, the JFTC screened and gave administrative guidance on patent, utility model and know-how licensing contracts. Domestic companies wishing to establish contracts with foreign firms had to notify the JFTC within 30 days of execution. The JFTC examined the notified contracts, sometimes organised hearings and modified or deleted terms in the contracts that could be considered 'unfair trade practice'.[105]

The JFTC examined whether the contractual conditions were 'fair', and advised Japanese companies to delete or modify conditions that included excessively high royalties or abnormally long contractual periods.[106]

Gradually, the JFTC developed its own policy based on the AMA to strengthen the bargaining position of Japanese companies vis-à-vis foreign licensors.

2.5 Taking a long-term economic view to private contracts

Since 1953, the JFTC's examination of international contracts has focused on the long-term economic implications of the contract terms for Japanese companies rather than the detection of international cartels. For example, the JFTC encouraged Japanese companies to think about the future when they would become competitive enough to be able to export the products, even if they were not speculating on such a perspective at the time of the conclusion of the contract, because these companies' capacity was small and exportation was still unthinkable.[107] It warned Japanese companies about export restrictions which, according to the JFTC, would soon become a constraint on the country's exports, even though that perspective was not necessarily on the companies' radar screen.

Until the late 1980s, Japanese companies were small compared to foreign licensor companies. R&D was concentrated primarily in the private sector. Japan had few options but to rely on the introduction of foreign-developed technologies, with a view to developing competitive products and technologies that improved on them.

2.6 From ex-ante to ex-post control of licensing terms

In 1964, Japan became a member of the OECD and liberalised foreign direct investment to some degree. Yet, it was the only OECD member to impose an obligation to notify international licensing agreements and exercise control over them. In 1968, upon a proposal by the Council on Foreign Capital Control, the government adopted measures for the liberalisation of foreign technology introduction (except for national security, some advanced technologies and cases that had significant negative effects on the Japanese economy).[108] In practice, technology transfer agreements were no longer under capital control law.

On 24 May 1968, the JFTC adopted its first guidelines for regulating licensing terms, called the Criteria for Approving International Technology Introduction Contracts (Criteria for Approval).[109]

The 1968 Criteria for Approval had two specific characteristics: (1) their coverage was limited to technology introduction contracts whereas Article 6(1) referred to all contracts with foreign firms; and (2) the grounds for illegality was solely 'unfair trade practices' whereas Article 6 included 'unreasonable restraints of trade', 'private monopolisation' and 'unfair trade practices' for judging the legality of international contracts. The JFTC explained that the 1968 Criteria for Approval did not deal with international cartel cases` under the cover of technology transfer agreements, cross-licensing or pooling contracts. The JFTC's justification for this was remarkably formalistic: cartels were horizontal agreements, whereas licensing agreements were vertical.[110] Soon, encouraging technology introduction became much more important than controlling international cartels.

The 1968 Criteria for Approval consisted of a short 'blacklist' of nine patent licensing restraints that were prohibited as unfair trade practices (point 1); a very short 'white' list of permissible patent licensing restraints (point 2); and a note indicating that the blacklist prohibitions apply, mutatis mutandis, to know-how contracts (point 3).[111] Like the US Nine No-No's, the Japanese 1968 approval criteria enumerated nine items for per se illegality. However, their content, as well as enforcement methods, differed completely. Under the 1968 Criteria for Approval, the JFTC's attention in screening of licensing terms with foreign companies seems to have been given primarily to the 'inequality of bargaining power'. In a detailed commentary on the licensing regulation, a JFTC official in the 1970s quoted Adam Smith's statement that where freedom of contract ceases to be real, markets fail.[112] According to this commentary, countries with no other option but to introduce foreign technologies had no other choice than to take the deal.[113]

2.7 Comparison with the US Nine No-Nos: Social philosophy or industrial policy?

Approaches to contractual intellectual property (IP) licensing by courts and competition authorities have evolved over time in developed countries. In the US, courts and antitrust authorities have examined, in particular, whether the restraints in question extended a patentee's economic power beyond the legitimate scope of the patent grant.[114] Especially in the 1960s and 70s, US competition authorities advocated formalistic analyses based on pre-determined categories of restrictions such as price, quantity, territorial or field-of-use restrictions and restrictions on the licensee's dealings with competing technologies or products.

Then Deputy Assistant Attorney General of the Antitrust Division of the US Department of Justice (DOJ) announced in a speech in 1972 the policy of ‘Nine No-Nos’, a ‘watch list’ of nine specific licensing practices that the division viewed as anticompetitive restraints of trade in licensing agreements.[115] Gilbert and Shapiro divide the Nine No-Nos into four categories. These involve patent holders’ attempts to (1) extend their patent monopolies to unpatented supplies, (2) gain control over improvements of their innovations, (3) determine prices for resale of their patented products, or (4) engage in market allocations. The DOJ endeavoured to cope with these attempts of patent holders through antitrust analyses and remedies.

Japan’s 1968 Criteria for Approval were anterior to the ‘Nine No-Nos’ but resembled the latter in form. According to JFTC officials, the Japanese control of licensing terms followed the US Nine No-Nos in the sense that the spirit of the Criteria was already present in the years before it was formalised. They also maintain that US court decisions had demonstrated a rigid and formalistic approach to analysing licensing contracts even before they were formulated in the ‘Nine No-Nos’.[116]

The Nine US No-Nos (1972)	JFTC Criteria for Approval (1968)
1. Royalties not reasonably related to sales of the patented products	**1. Restrictions on export territories**
2. Restraints on licensees' commerce outside the scope of the patent	2. Restrictions on export prices and quantities
3. Requiring the licensee to purchase unpatented materials from the licensor (tie-ins)	3. Restrictions on the use of competitor products
4. Mandatory package licensing	4. Restrictions on the sellers of raw materials
5. Requiring the licensee to assign to the patentee patents that may be issued to the licensee after the licensing arrangement is executed (exclusive grantbacks)	5. Restrictions on the buyers
6. Licensor’s veto power over grants of further licenses	6. Resale price provisions for licensed products
7. Restraints on sales of unpatented products made with a patented process	7. Grantback or assign-back clauses concerning improved or applied invention
8. Post-sale restraints on resale	8. Obligatory payment of royalty for use after the expiration of patent right
9. Setting minimum prices on resale of the patent products	9. Restrictions on the quality of raw materials or components

Both the Nine No-Nos and the Japanese 1968 Criteria for Approval singled out as per se illegal vertical non-price restraints, such as exclusivity, tying and exclusive grantbacks. Both policies, moreover, generally favoured the interests of licensees over those of IP holders. Throughout the history of post-war Japanese competition law and policy, the US influenced the JFTC. This was so also at that time of the Nine No-Nos.

Significantly, however, the 1968 Criteria for Approval and the Nine No-Nos differed in the scope of prohibitions and the evaluation of grantbacks. The 1968 Japanese Criteria emphasised that ‘requiring from the licensee the reporting of knowledge and experience which the licensee acquired as well as assigning back to the licensor any improvement inventions and application inventions was unlawful, unless the licensor had the same obligations which were 'equally balanced in substance', meaning that the obligation should be reciprocal and the licensor should remunerate the licensee for the invention.[117]

According to commentary on the 1968 Criteria by a JFTC official, grantback licensing terms could be classified by different criteria, such as reciprocal or unilateral, exclusive or non-exclusive, obligatory or voluntary, and compensated or not by pecuniary means. Among these, unilateral and exclusive grantbacks are accompanied by non-voluntary restrictions and deprive the user of the technology of the opportunity to improve his competitive position by developing new technologies or products. The official considered these grantbacks to be typical examples of 'abusive use of the technology supplier's superior position', designated by the JFTC as an unfair trade practice.[118]

The policy motives underlying the 1968 Criteria for Approval differed from the Nine No-Nos in the US. In Japan, the JFTC seems to have taken an interest particularly in the patentee's attempts to gain control over improvements of their innovations. At that time, most of these companies were Japanese licensees of foreign firms.[119]

The mode of enforcement also differed between the US and Japan. According to Gilbert and Shapiro, the DOJ under the Nine No-Nos litigated licensing cases under a rule of reason, rather than a per se illegality rule: of the sixteen cases filed by the DOJ's Antitrust Division between the late 1960s and the late 1970s, only half specifically addressed any of the nine practices.[120] In Japan, by contrast, the policy of licensing control was implemented mostly through administrative guidance to Japanese companies concerned. Between 1968 and 1989, there were three formal JFTC enforcement cases relating to IP licensing outside the notification/screening system: two cases involving Japanese and foreign companies[121] and one among Japanese companies.[122]

2.8 Focus on grantback clauses

Under the ex-ante screening system between 1947 and 1967, approximately 5 percent of around a hundred contracts scrutinised every year received administrative guidance.[123] As of 1968, the AMA changed its focus from foreign capital control regulations to providing a basis for evaluating international technology transfer to Japan. The 1968 Criteria for Approval were most heavily enforced in the years 1975-1980; nearly 16 percent of the 200 to 240 international agreements reviewed annually during that time period contained problematic provisions. By far the most common JFTC intervention related to grantback clauses as shown in Table I. These criteria remained hypothetical, however, as there have been only a few enforcement cases relating to IPRs (see Annex IV).

Table 1: Enforcement of International Technology Introduction Agreements by the JFTC, 1975-1980

FY	'75	'76	'77	'78	'79	'80	Average
Unfair Trade Practices	*186*	*289*	*254*	*295*	*320*	*263*	*267.8*
(1) Grant back	94	199	174	173	149	140	154.8
(2) Non-competition	39	49	39	47	44	32	41.7
(3) Distributors	5	5	8	13	39	33	17.2
(4) Tie-in sales	16	6	12	22	6	4	11.0
(5) Resale price	3	2	0	0	20	15	6.7
(6) Advertisement	4	2	2	9	10	6	5.5
(7) Quality	0	0	0	6	15	10	5.2
(8) Royalty	6	5	1	2	3	8	4.2
(9) Business activities	0	13	8	1	1	1	4.0
(10) Parallel import	12	2	1	0	0	0	2.5
(11) Termination	-	-	-	-	-	2	0.3

Table 1: *(Continued)*

FY	'75	'76	'77	'78	'79	'80	Average
(12) Sales	-	0	0	0	0	2	0.3
(13) Trademark	-	-	-	-	-	1	0.2
(14) Others	7	6	9	22	33	9	14.3
Unreasonable restraint of trade	0	0	0	0	0	0	0.0
Sum total	186	289	254	295	320	263	267.8
Net total (A)	156	241	212	228	224	200	210.2
Total international licensing asreement (B)	1.198	1.260	1.211	1.356	1.499	1.522	1.341
(A)/(B)	13.0	19.1	17.5	16.8	14.9	13.1	15.7

Source: Iyori & Uesugi, Note 117 at 305

Note: '(8) Royalty' above means royalty payment obligation after the termination of the licensed technology or on unpatented products.

The 1968 JFTC guidelines considered grantback clauses almost per se illegal, unless the economic gains to the licensors and licensees were 'balanced'. Whether or not gains were 'balanced' was determined by such elements as the amount of remuneration, the period during which this obligation was imposed, and the geographical scope of the obligation.[124]

In 1985, the JFTC undertook a detailed survey on the types of companies that resort to technology transactions (both import and export) in terms of their content, technological fields and the size of the company. As expected, larger companies engaged more in such transactions than smaller ones, and their rate of increase was greater for those engaging in them than those who did not.[125] In 1982, among the total licensing contracts, 54.4 percent concerned patents, 40 percent were related to know-how, and as much as 32.6 percent included technical assistance. Among domestic technology transactions, 68.3 percent were patent-related, while 33.9 related to know-how. Between international and domestic technology transactions, by contrast, 39.4 percent were related to patents, 46.7 percent to know-how, and 44.1 percent concerned technical assistance. During this period, Japan's technology exports were growing. Among the firms in the same technological field, imports in electronics and telecommunications technologies amounted to 87.9 percent of all technological fields concerned and exports to 74.3 percent. Exports of technologies relating to automobiles and their technical parts stood at 97.3 percent while imports of these technologies reached 91.3 percent. In chemical technologies, imports (67.3 percent) slightly exceeded exports (66.7 percent), while exports (93.3 percent) outstripped imports (70.4 percent) in materials technologies.

Under the 1968 Criteria for Approval, only 'reciprocal' grantbacks were acceptable. Under this quasi-per-se rule, 140 to 199 grantback clauses were caught between 1975–1980. Since 1981, this number dropped to one-third, as Table II shows. According to Iyori and Uesugi, this was due to the change of criteria for examining grantbacks: after 1981 (the end of the Nine No-Nos policy in the US), these clauses were analysed case-by-case.[126] Non-compete clauses for exclusive licences, by contrast, continued to be examined by a per se rule and the number of these cases did not drop. Non-compete clauses after expiration of licensing agreements in particular were always considered unacceptable by the JFTC.[127] This explains why the number of enforcement-related non-compete clauses remained almost the same throughout 1975-1990 as Tables I and II indicate.

Table 2: International Technology Introduction Agreements by the JFTC, 1981-1990

FY	'81	'82	'83	'84	'85	'86	'87	'88	'89	'90	Average
Unfair Trade Practices	*112*	*170*	*131*	*143*	*110*	*76*	*85*	*113*	*169*	*137*	*125.6*
(1) Grant back	51	55	66	63	52	34	26	58	44	26	47.5
(2) Non-competition	36	56	29	43	36	34	38	35	32	32	37.1
(3) Resale price	3	5	1	1	3	1	3	5	21	24	6.7
(4)Distributions	6	9	5	0	1	0	0	3	9	17	5.0
(5) Advertisement	0	10	12	7	4	0	2	0	0	0	3.5
(6) Parallel import	0	3	3	4	1	0	2	2	11	6	3.2
(7) R & D	-	-	-	-	1	1	1	3	15	14	3.5
(8) Tie-in sales	2	3	2	4	5	1	1	1	9	1	2.9
(9) Sales price	-	-	-	-	-	-	-	-	17	15	3.2
(10) Termination	2	5	0	2	0	0	2	1	0	0	1.2
(11) Royalty	0	0	0	1	0	1	1	0	5	1	0.9
(12) Export	0	0	0	0	0	0	0	0	6	1	0.7
(13) Quality	4	1	0	0	0	0	0	0	0	0	0.5
(14) Business activities	3	0	0	0	0	0	0	0	0	0	0.3
(15) Trademark	2	0	0	0	0	0	0	0	0	0	0.2
(16) Sales method	0	1	0	0	0	0	0	0	0	0	0.1
(17) Others	13	22	13	18	7	4	9	5	0	0	9.1
Unreasonable restraint of trade	0	0	0	0	0	0	0	0	0	0	0.0
Sum total	122	170	131	143	110	76	85	113	169	137	125.6
Net total (A)	101	141	116	117	89	68	74	97	144	102	104.9
Total international	1,468		1,557		1,607		1,710		1,916		1,708
Licensing agreement (B)		1,717		1,675		1,543		1,892		1,996	
(A) / (B)	6.9	8.2	7.5	7.0	5.5	4.4	4.3	5.1	7.5	5.1	6.9

Source: Iyori & Uesugi Note 117 at 306.

Until 18 June 1997[128] when the notification obligation of international agreements was abolished, grantback clauses continued to be frequent targets of JFTC administrative guidance despite the drops in 1981.

2.9 Technological realities and policies behind the JFTC licensing preview: the underlying dilemmas

Did the JFTC's interest in grantback cases result from its analysis of competition in the market? The JFTC did not look into the effects of certain clauses on competition in the relevant markets, but worked solely on the contractual terms, i.e. forms of restraints, of which grantback and non-compete clauses were examples.

In the 1970s and 1980s, government-affiliated institutions conducted frequent surveys on the state of technology, which provided the basis for a policy framework for different government agencies, including the JFTC.

In 1982, for example, the Institute for Future Technology (IFTECH)[129] surveyed the nature, content and origins of technological inventions that had made important contributions to global industrial evolution between 1935 and 1964, which the JFTC analysed to align competition policy with the realities of R&D in Japan.

According to the JFTC, Japan's technological level was raised by what the IFTEC survey responses revealed: technological competition, private companies' own R&D efforts, as well as their desire to develop their own technology and their aspiration for quality.[130] Responses to the IFTEC survey also suggested that the following were among the main obstacles to a higher level of technological development: the small scale of R&D; the small number of researchers; the lack of accumulation of basic research; and the lack of originality of researchers.[131]

The JFTC lamented that, among the major basic inventions in the world since 1935, only the 'mass-production fermentation processes of a crystalline salt of glutamic acid monosodium glutamate' (a protein found in soya beans) was Japanese.[132] According to the JFTC, however, Japanese technological development was possible because of the ability to turn basic ideas developed in foreign countries into market-oriented improvements on the technologies within only a few years of their introduction. One example was basic oxygen steelmaking, which was developed in Austria in 1952 and was operational for industrial production in Japan soon after its introduction. Another example was video tape recorder (VTR) technology, which was developed for industrial use in the US, but was innovated in Japan as a consumer product in 1964.

The JFTC drew attention to another survey result by the National Institute of Advanced Industrial and Science and Technology (AIST):[133] between 1957 and 1961, among 3000 new technologies or products, 60 percent resulted from Japanese companies' in-house R&D, 21 percent were due to licensing and 13 percent were the products of joint R&D.[134] This survey showed – with examples such as aluminium production, rotary engines and VTRs – that sales values were higher when technology introduction was combined with several years of in-house R&D.[135]

The JFTC commentaries on various technology surveys reveal that the central policy issue was how not to discourage incremental innovation by domestic firms. According to former officials who were in charge of licensing reviews, '… the [J]FTC has been placing policy emphasis on grantback clauses. This reflects the [J]FTC policy consideration that technology can be improved not only by the original innovator, but also through licensees of that technology'.[136] At the same time, the JFTC seems to have been aware that incremental innovation alone would not lead the economy to achieve a much higher level of technology and that encouragement measures for basic inventions were necessary. By this time, the post-war reconstruction technology introduction policies were facing dilemmas on different levels, as we will see below.

The 1984 JFTC report underlined that the period when Japan depended on technology introduction was largely over. Analysing the Bank of Japan's International Current Account Monthly Reports[137] and the results of the technological survey in 1982,[138] the JFTC report warned that – despite the rise in the ratio of Japanese companies' R&D spending on technology licensing payments – Japan's technology imports remained high (66.7 percent from the US and 32.8 percent from Europe), while most technology exports went to Asian countries.[139] From these survey data, the JFTC report concluded that reliance on technology introduction would no longer be a good way to promote further development of the Japanese economy. The industry itself viewed its weakness as stemming from insufficient investment in basic R&D and the absence of a mindset that valued originality. At the same time, 84 percent of respondents to the Science and Technology Agency surveys believed that science and technology were the only sustainable source of development. The JFTC warned that restrictive conditions on licensing terms had increased as Japanese companies became competitors of US or European firms. According to the JFTC, territorial sales restrictions concerning Japanese licensees increased markedly, from 17 percent of technology licensing in 1970 to 55 percent in 1981. Under such restrictions, Japanese licensees were only permitted to sell licensing inside Japan.

At any rate, the evolution of the JFTC licensing reviews seems to have been closely related to Japan's evaluation of global technological competition in the light of the country's technological level and R&D investment capacity. However, the same policy continued despite the rapid change in Japan's technological position.

In reality, the Japanese government's preoccupation with incremental innovation was relatively brief. Its main concern soon shifted to how to encourage stand-alone, original inventions through fundamental research. However, government regulations do not change quickly in Japan and the JFTC's licensing screening lasted until 1997.

2.10 The 1989 Guidelines: from justifying a weak bargaining position to protection of local innovation incentives

Since the late 1970s, international criticism was growing over Japan's neglect of national treatment principles, particularly in the US. A US commentator in 1977 cited – as one of the thirteen reasons for the US to rush to protectionism – the JFTC's 'unfair' licensing control, which delayed decisions by several years.[140] According to a JFTC official, such criticism surfaced because Japan was no longer a technologically insignificant country, which meant that any JFTC action had far-reaching consequences.[141] The JFTC seemed to be seeking international recognition of Japan as a relatively developed country. The criterion of 'fairness' considerations by the JFTC of licensing terms therefore had to be re-examined in light of the new technological realities.

On 15 February 1989, the JFTC issued new instructions called Guidelines Concerning Unfair Trade Practices with Regard to Patent and Know-How Licensing Agreements (hereafter '1989 Guidelines'),[142] with a more conciliatory tone than the 1968 Criteria for Approval. The 1989 Guidelines introduced the following major changes to the framework for evaluating licensing terms:

- all technology transaction contracts, including technology export and licensing contracts to both foreign and domestic companies, came under the JFTC's control of licensing terms;
- the possibility of prior consultation with the JFTC on contracts before their completion was preserved, but procedures for filing international agreements for review after the execution of the agreements were established;
- the pro-competitive role of intellectual property and technology transactions was explicitly recognised;[143]

- monopolisation and unreasonable restraints of trade (Article 3, AMA) were included as grounds for illegality of licensing contracts, but the guidelines elaborated criteria only for judging illegality on the grounds of unfair trade practices; and

- the term 'relevant market' was introduced, allowing for a rule-of-reason analysis, but the methods of determining such a market were not specified.

Instead of two categories in the 1968 Criteria for Approval in black and white, the 1989 Guidelines drew up three categories of restraints: (a) those considered, in principle, not to fall under unfair trade practices (white); (b) those that may fall under unfair trade practices (gray); and (c) those highly likely to fall under unfair trade practices (dark gray). Category (a) was expanded to include territorial and end-use restrictions; quality standards, if defined narrowly; input tying, if necessary for effectiveness of the patent; calculation of royalties based on sales or production and requiring payment of royalties post-term.[144] Category (c) included resale price restrictions; tying; discriminatory post-term prohibition of handling competing goods or technology; and a post-term requirement of royalty after the expiration of the patent. Quantity, sales price restrictions and grantback clauses belonged to Category (b).

According to Iyori and Uesugi, the white list should be a safe harbour for a licensor to enhance the incentive to license; the assumption underlying the 1968 Criteria for Approval that a foreign licensor was in a superior bargaining and technological position vis-à-vis Japanese licensees was no longer accepted.[145]

While the JFTC continued to be wary of grantbacks in the 1989 Guidelines (and in subsequent versions),[146] it no longer considered them entirely illegal per se. They were deemed 'highly likely to constitute unfair trade practice' if it was obligatory for the licensee to assign the licensor the right to an improved or applied invention, or to grant the licensor an exclusive license. The guidelines explained that this restriction could unduly enhance or maintain a dominant position of the licensor in a relevant market and impede incentives for research and development of the licensee, thus reducing competition in a product or technology market. The guidelines further said that this could fall under Item 13 of the designated unfair trade practice (see Section 2.2 of this paper), i.e. 'dealing on restrictive terms', and Item 14, 'abuse of superior bargaining position'. Restrictions on research and development activities by the licensee and joint R&D with a third party regarding a licensed patent or its competing technology were also considered highly likely to constitute an unfair trade practice, as were restricting the use of licensed technology or requiring royalty payments despite the expiration of patent rights.

Restraints not addressed in the 1968 Criteria for Approval were introduced in the 1989 Guidelines. These were requirements for the licensee not to challenge the validity of licensed patents (no-challenge clause). The guidelines explained that competition in a relevant market could be reduced through the continuation of patent rights for technology that otherwise could not obtain any patent rights and eliminating use of such technology by other businesses. The guidelines included provisions for:

- royalties based on something other than the patented goods (gray);

- package licensing (unless required to guarantee the effectiveness of the licensed patent); and

- unfair termination.

As we have seen, the no-challenge clause (covenant not to challenge the validity of a licensed patent) is evaluated in the US mainly under public policy based on patent law. In 1989, the JFTC included this clause in the list of practices which may constitute unfair trade practices. One of the reasons the JFTC included the no-challenge clause as a possible violation of the AMA was that, at that time, the EU did not exempt the no-challenge clause from the application of Article 81(1) EC so that undertakings could be free to challenge the validity of the licensed patents.[147] Since its decision in Davidson Rubber,[148] the European Commission had been hostile to no-challenge clauses on the grounds that they stifle innovation by the licensee, ignoring the effects of such restrictions on the rights holder's willingness to invest in R&D or to grant licences.[149] The ECJ endorsed the Commission's negative view of no-challenge clauses (trademark licensing) in Windsurfing,[150] but gradually took a more flexible position. In Windsurfing, the Advocate-General remarked that the real effect of such a restriction may not be significant, as a licensee may well not want to challenge a clause that would open up its market to competitors. In Bayer & Hennecke,[151] the Commission took a negative view of a no-challenge clause in their patent licensing agreement as compromising public interest. The Court, however, stated that its legal and economic context should have been taken into account before finding it illegal under Article 81(1) (today Article 101(1) TFEU). In the 2004 TTBER, the European Commission also introduced a certain flexibility in permitting the possibility of withdrawing the licence, once the IPR was challenged.[152]

Incidentally, the evaluation of the effects of no-challenge clauses on competition continues to evolve in the EU. In discussions aimed at revising the TTBER and the TTBE Guidelines in April 2014, the Commission proposed draft 2014 TTBE Guidelines in which non-challenge clauses in settlement agreements can, under specific circumstances, be considered anti-competitive and may be caught by Article 101(1). This includes cases where the licensor knows (or could reasonably be expected to know) that the licensed technology does not meet the legal criteria to receive intellectual property protection, or if the licensor induces – financially or otherwise – the licensee to agree not to challenge the validity of the technology.[153] This proposal seems to respond to the Astrazeneca judgment of the CJEU,[154] as well as to the European Commission's decision in June 2013 on the Lundbeck case, where the settlement among nine pharmaceutical companies was considered to be anti-competitive.[155]

2.11 The 1999 Guidelines

On 30 July 1999, the JFTC revised its Guidelines for Patent and Know-How Licensing Agreements under the Antimonopoly Act (1999 Guidelines). The revisions reflected the continued liberalisation process of the JFTC's control of licensing agreements. The 1999 Guidelines were expanded to cover unreasonable restraints of trade and private monopolisation. They added definitions of terms,[156] explanations and illustrations of possible situations where patent or know-how licensing could be considered as falling under the prohibition of unreasonable restraints of trade, monopolisation[157] and unfair trade practices. However, neither the definition nor the method of determining 'relevant market' was clear.[158]

Interestingly, the 1999 Guidelines added the non-assertion clause as a restriction falling under the prohibition of unfair trade practice (notably Item 13 of the General Designation (Item 13 – dealing on restrictive terms; today Item 12), if this clause has an adverse effect on competition in a market. The guidelines explained that this could 'result in the enhancement of an influential position of the licensor in a relevant product or technology field or could further impede the licensee's incentive to engage in research and development, thereby impeding the development of new technologies by restricting the exercise of the licensee's patent rights, etc.'.[159]

While the 1995 US IP Guidelines did not find the non-assertion obligation as raising possible competition concerns, it was included in the Japanese 1999 Guidelines in which (together with grantback[160] and no-challenge clauses) it was characterised as important for preserving the licensee's incentive to innovate.

Thus, non-assertion and no-challenge clauses became important issues in the new Japanese guidelines which viewed them as potentially discouraging to domestic companies' innovation incentives. Foreign observers criticised the JFTC for being hostile to non-assertion or no-challenge clauses, arguing that this could adversely affect competition in technology licensing by discouraging cross-licensing or settlement of intellectual property disputes.[161]

Under the 1999 Guidelines, grantback clauses continued to be considered as one of the significant restrictions that had a notable impact on competition.[162] The guidelines describe a 'completely exclusive grantback' as assigning or effectively transferring to the licensor all rights over the licensee's improvement; in so doing, the original licensee licensed a patented improvement back to the original licensor while retaining non-exclusive rights to use the improvement. This assignment was considered 'highly likely' to violate the AMA and was therefore accorded 'dark gray list' status. It was explained, however, that such an arrangement would not constitute an unfair trade practice if the licensor is deemed to have paid 'an appropriate price' for the exclusive rights to the improvement.[163]

Japanese policies that favoured domestic industrial development led to the US-Japan Structural Impediment Initiative talks in the early 1990s.[164] Article 6(2) of the AMA, which made notification of contracts obligatory, was deleted by Amendment Act No.87 of 1997.

3. PROS AND CONS OF LICENSING REGULATION BASED ON FAIRNESS: IMPLICATIONS FOR DEVELOPING COUNTRIES

The licensing screening methodology used by Japan between 1947 and 1997 to protect local innovation may be an attractive model for developing countries today. Japan chose a path to economic development through technology licensing. A well-coordinated general policy, involving a number of institutions, encouraged incremental innovations by Japanese companies.

3.1 Pros and Cons

As indicated earlier, the Japanese licensing regulation with its fairness approach, based on a list of conducts in graduated shades of illegality, has attracted the attention and interest of developing countries. How can we evaluate the performance of this system, particularly from the perspectives of developing countries?

In September 2007, the JFTC published new instructions called Guidelines Concerning the Use of Intellectual Property under the AMA (2007 Guidelines),[165] which replaced the 1999 Guidelines. The 2007 Guidelines recognise the generally pro-competitive effects of licensing in the language of the US IP Guidelines. At the same time, they assert that 'competition policy is necessary if a rights holder does not allow other entrepreneurs to use its technology or grants other entrepreneurs a license to use the technology in ways that restrict their research and development, production, sales or any other business activities, depending on how such refusal or restrictions are imposed'. The 2007 Guidelines explain that this vast scope of conducts, which could possibly be subject to the JFTC regulation, could be analysed both from the viewpoints of 'substantial restraint of competition' (Article 3) and 'unfair trade practices' (Articles 6 (1) and 19).

The guidelines designate a general method of analysing two types of competition problems which, surprisingly, are almost identical: finding out which transactions are affected by the conduct in question and whether or not competition is restricted in the market where these transactions took place.[166] Despite the shift from 'fairness' to the 'substantial restraint of trade' criteria, the traditional emphasis on 'dominant bargaining position' as an important factor restraining competition remains and blurs further the criteria for analysing competition problems.

We will attempt to evaluate Japanese licensing screening during 1947–1997 through the possible consequences that it seems to have had, notably in the 2007 Guidelines and later cases. These consequences are divided into positive aspects, negative aspects, and unanswered questions.

3.2 Positive aspects

At the initial development or reconstruction stages, 'infant industries' need support. Control of licensing terms in Japan was one of the numerous, well-coordinated efforts undertaken to encourage private company initiatives to help local innovation bear economic fruit.

The JFTC's examination of international contracts focused on the long-term economic implications of private contract terms. This had an educational function: companies learned the implications of their licensing contracts from a long-term perspective.

The most significant merit of the JFTC's administrative screening of licences was that it was based on its understanding of how and what types of local innovation occurred. The JFTC critically assessed the country's technological reality. This was made possible by using company data obtained by the JFTC when notifications were made, as well as various surveys undertaken by government agencies with a view to identifying future R&D needs.

This was part of a coordinated policy of building public R&D infrastructure through higher education. The Japanese government, without abundant fiscal resources, did not spend an exhorbitant amount of money on R&D. Still, according to the UNESCO Statistical Yearbook 1983, the annual per capita public expenditure (in national currency) in the late 1970s and early 1980s was $303.9 in the US, SF62.9 in Switzerland, INR8.2 in India, KRW756.9 in the Republic of Korea and ¥50850.9 in Japan.[167] Compared to present day per capita public R&D spending figures in some emerging countries, Japanese public spending on R&D in these years was much higher.[168]

The fact that the Japanese government did not intervene in the actual R&D programmes was also helpful. Direct intervention in these programmes by a government with formalistic and egalitarian tendencies would have created inefficiency and stifled innovation, which requires spontaneous, non-conformist efforts by individuals. The government offered an overall policy framework and coordination of various government and private sector efforts.

Japan's commitment to competition law enforcement may not have been endogenous, but its commitment to technological progress was real. Such progress was promoted through various measures including credible patent protection. Throughout the country's institutional history, there was respect for patents as a fruit of inventive efforts. There were also efforts to use the patent system for encouraging local innovation. Japanese Patent Law since the end of the 19th century ensured national treatment principles and yet encouraged incremental local innovation through various means that enabled domestic companies to compete with foreign firms in the Japanese market. One of the means was a high standard of 'industrial application' criteria and the imposition of strict enablement requirements that did not easily allow broad abstract claims. This allowed domestic companies to compete with multinationals in the Japanese market.[169]

3.3 Negative aspects

The JFTC's intervention strengthened collectively and indirectly the bargaining position of Japanese companies vis-à-vis powerful multinationals. Former JFTC officials in charge of licensing screening under the 1968 Guidelines emphasise that the licensors may have abused their rights because of the high demand for technology introduction in Japan at that time. They observe that Japanese licensees tended to accept excessively restrictive licensing conditions due to this competition among licensees for obtaining contracts.[170] The JFTC intervention on licensing terms, they explain, was intended to preserve innovation incentives for local companies entering into contractual relations with foreign companies who could easily impose difficult conditions for licensees in their patent and know-how licensing agreements.[171] The review of licensing terms functioned as though the government backed up and supplemented the weak bargaining ability of Japanese private companies in licensing negotiations to maintain the licensee's incentives to engage in research and development. However, such government intervention should not continue for too long.

Japan's licensing regulation may have left a legacy of a domestic industry that expects protection from foreign licensors, and small companies that expect protection from big ones, on the grounds of 'fairness'. It left a habit of considering local innovation as deserving of protection and created a legacy of licensee protection, sometimes as part of the country's industrial policy. Japanese companies improved foreign technologies and rapidly increased their exports of consumer products to international markets, particularly in the countries where the original inventions and R&D were made. This industrial policy benefitted consumers and Japan in the short- and medium-run, but its effect on the global level of innovation is not known.

No doubt the JFTC's screening of licensing terms would have had a chilling effect on foreign direct investment in Japan, which set out the objective of technological development through licensing rather than direct investment. According to former JFTC officials who dealt with this regulation, foreign licensors would have re-directed their investment elsewhere had they had access to better markets than Japan. Fortunately for Japan, this did not happen, because the domestic market was sufficiently large and no competing emerging markets existed at the time. It was also a stable market where technicians were respectful of intellectual property rights, probably because they were thinking of long-term technological development.

The JFTC's policy in the earlier period of its licensing screening largely ignored the national treatment principle. In the present-day context of a globalised economy, it could have diminished the inflow of not just capital but also of new technologies. As there was no competition from other emerging markets during the 1970s and 1980s, the JFTC's licensing control did not seem to re-direct foreign investment elsewhere.[172] However, as Japan gradually became a competitor to technologically advanced countries, friction naturally grew, particularly with regard to the US.

3.4 Unanswered questions

Formalistic, *per se* approach

The micromanaged Japanese control of licensing terms between 1968 and 1997 left many unanswered questions. How best to define and analyse 'anti-competitive abuse of IPRs'? What would be the criteria for recognising this abuse? What would be the best way to ensure that competition law analysis and solutions (measures to restore competition) would lead to the desired economic results, particularly innovation?

For example, did the control of grantbacks itself produce real economic effects? During the 1970s and 1980s, the JFTC focused on controlling grantback provisions – seen as major obstacles to domestic incremental innovation – in licensing agreements. The 1989 JFTC Guidelines considered grantback clauses almost per se illegal, unless the economic gains to the licensors and licensees were 'balanced'. Whether or not gains were 'balanced' was determined by such elements as the amount of remuneration, the period during which this obligation was imposed and the geographical scope of the obligation.[173]

What implications does this experience hold for competition law control of licensing agreements? According to Iyori and Uesugi in 1994:

> 'The Japanese experience is a good example of how important it is to encourage innovative activities not only of original innovators but also of licensees of the technology…One of the JFTC policy goals is to secure higher levels of innovative activities within Japanese markets or to maintain maximum incentive to innovate through improvement of the licensed technology'.[174]

In fact, little is known about whether better conditions for significant innovation were created for all those operating in the market. Many JFTC decisions depended largely on an abstract construct without the determination of relevant market and competitive harm. Furthermore, in the JFTC's screening of licensing terms, whether or not certain licensing clauses were anti-competitive was decided on the contractual forms in the submitted licensing agreements which were classified in advance as black (per se illegal), gray (illegal in principle, except with limited conditions) and white (legal in principle except in certain situations), even though the categories had been refined since the 1989 Guidelines. In the licensing screening system, the JFTC – without an actual analysis of 'the effect on competition in the relevant market' – communicated its 'administrative guidance' to domestic companies against which no legal action in court was possible. It would therefore be difficult to assess to what extent the JFTC 'achieved the objective of securing higher levels of innovative activities within Japanese markets', as Iyori & Uesugi claim.

The JFTC's anti-grantback policy may have provided Japanese companies with additional incentives to invest in innovation, as they would not have feared competition from foreign companies on products that used incremental innovation. However, little is known about whether, or how, this actually worked. For example, anticipating that they would not be able to have a grantback, foreign firms may have asked for heavier licensing terms upfront through higher royalties, for example.

The process was 'largely a dialogue between the Japanese licensee and the JFTC in which the licensor [had] no official role or right to appeal'.[175] Procedurally, foreign licensors had little say in administrative processes whereby licensing terms were deleted or amended. There was no practical way of renegotiating licensing terms or royalty rates or modifying restrictive conditions for foreign companies. Nor was it possible for companies to contest the administrative guidance in court.[176] It was not even certain if companies actually changed their contracts after the JFTC administrative intervention, as it would have been quite difficult to renegotiate the terms once the contracts were signed.[177]

The JFTC decided on the 'fairness' of Japanese companies' international agreements on the basis of forms of restriction (such as territorial restrictions, prohibition of the sale of competing products, grantbacks, etc.) and not on the actual effects of these agreements on competition in the relevant market. Evaluating competition effects of licensing terms would have been helpful for the licensees in understanding the implications of their contracts.

Has the Japanese administration increased its recourse to a more sophisticated, case-by-case, effect-based analysis of IP licensing from a global perspective? The AMA, curiously, foresees illegality based both on market power (Articles 3, 6) and unfairness (Articles 5, 19). Has the JFTC developed a proper method of recognising unfairness, which would naturally be distinct from the market power analysis amply expounded in the 1995 US IP Guidelines?

Fairness approach

For a long time, the JFTC poured resources into applying 'fairness' criteria to protect licensee innovation, which was part of the consensual developmental view of the country. Local companies may also have come to expect the government to support their complaints, whenever they feel their 'innovation incentive is restrained'. It would not be surprising if the agency did not accumulate ample experience in establishing prosecution strategies, conducting market effect analyses and finding evidence in complex high-tech cases involving IPRs.

The Microsoft NAP case suggests that, still today, Japanese competition authorities tend to fall back on the fairness criteria of Article 19 (prohibition of unfair trade practice) to deal with highly complex IP cases (see details of the JFTC Microsoft Non-assertion Case below).

The licensing agreement involving a controversial non-assertion provision (NAP) established by Microsoft Corporation (MS) with its original equipment manufacturers (OEMs) was one of the first formal JFTC cases involving IP licensing after the termination of registration-based screening control. The NAP in the contracts required that the licensees not bring any patent infringement suits against MS if Windows licensed by the company infringed patents owned by licensees on audiovisual (AV) technology. The original NAP covered a broad range of existing and future patents. Prior to the JFTC investigation, Microsoft contemplated terminating the NAP clause and did so on 31 July 2004.[178] The modified MS contracts with OEMs from 1 August 2004 onwards did contain a NAP clause, but it covered a limited range of technologies if future Windows versions contained 'features and functions' and patents that were already implemented. A similar case relating to Microsoft's contracts with OEMs was initiated by the US Department of Justice, but was not pursued, probably due to the lack of sufficient data supporting the DOJ's allegations.

The JFTC hearing decision states that: '[T]here was a high likelihood that the NAP undermined the incentives of OEMs for PC AV technology research and development'. It expresses concern that the NAP prevented and excluded competition in the market for PC AV technology and adversely affected the competitive market environment.[179] The JFTC listed the following reasons for concluding that the NAP violated Article 19 of the AMA: the NAP was applicable not only to licensed products, but also to products sold in the future for quite a long period of time, while the OEMs and MS are competitors in the PC AV technology trading market. Even if an OEM were to have significant PC AV technology, its incentives to research and develop such technology would be undermined by the NAP and its position weakened as a result. MS, by contrast, distributes and disseminates its PC AV technology widely all over the world by installing it in its Windows series products, strengthening its position.

The enlightened public would have been convinced of the illegality of the Microsoft NAP clause had the JFTC (i) investigated the case under Article 3, first part (private monopolisation), (ii) determined with sufficient data the relevant market of the case, and (iii) showed that the anti-competitive effects of the non-assertion clause outweighed its pro-competitive aspects. As the MS NAP case was contested under Article 19, it was not necessary to determine 'relevant market' or to identify the effects on competition in the market (including pro-competitive ones), although one of the most disputed subjects in the hearing was the 'relevant market'. What MS intended to achieve through the NAP remains unknown. The 2007 Guidelines refer to non-assertion clauses only as a possible unfair trade practice.[180]

Box 2: JFTC Microsoft Non-assertion Case

On 13 July 2004, the JFTC issued a recommendation addressed to the US Microsoft Corporation (MS) holding that the non-assertion clause in its software licensing contracts with original equipment manufacturers (OEMs) in Japan violated Article 19 of the AMA concerning unfair trade practices, notably the prohibition of 'dealing on restrictive terms'.

MS contested the JFTC recommendation and a series of hearings followed. On 16 September 2008, the JFTC delivered a cease-and-desist order regarding the non-assertion clause (NAP) in Microsoft's software licenses. According to the JFTC, the following factors taken together constitute a violation of Article 19 AMA:

(i) MS had a worldwide share of 90 percent in the OS market, and OEMs were therefore 'coerced' to enter into licensing agreements containing the NAP clause.

(ii) Windows OS incorporated technologies patented by OEMs and allowed almost all PC users and developers of PC software to freely use the OEMs' technologies for the Windows OS, its replacement or successor products, for an unlimited period. In the period before 31 July 2004, OEMs were discouraged from developing AV technology because the NAP clause amounted to a royalty-free license and applied to future versions of Windows. OEMs could not license their patents to third parties, nor could they differentiate their AV products from those of others using their own patents exclusively.

(iii) After 1 August 2004, disclosure of the technology contained in licensed Windows was insufficient and, therefore, OEMs could not claim infringement of their patents by Windows at the time of contract negotiation. OEMs were not in a position to know whether Microsoft infringed their patents because the information concerning the new Windows versions was disclosed only through the object code and because reverse-engineering was prohibited.

(iv) OEM patents, which covered the core technologies of AV technologies for PCs, may have been infringed by Windows OS. The NAP clause substantially diminishes OEMs' incentives and ability to develop technologies in related fields, such as audio and video compression and decompression technologies for PCs.

Microsoft argued that AV technologies for PCs are general AV technologies and, therefore, OEMs can use them for non-computer AV products. Thus, the NAP clause in the MS-OEM contracts could not diminish OEMs' R&D incentives. In contrast, the JFTC maintained that, because the coverage of the non-assertion clause was broad and the scope of technological functions and future MS products covered by it were unclear, potential future effects of the non-assertion clause could be considerable over long term. For this reason, the JFTC concluded that the NAP clause undermined the incentives of OEMs to undertake R&D on PC-related AV technology and that the MS non-assertion clause had 'the possibilities of harming fair competition and corresponded to Item 13 of its General Designation (dealing on restrictive terms)', thus violating Article 19 of the AMA.

Preoccupation with Local Industry Complaints

By the time the 2007 Guidelines were elaborated, problems related to patent pooling or cross-licensing involving standardisation became a serious concern for certain industrial sectors.

As in the US and the EU, cases involving Rambus, Qualcomm and the ETSI GSM 03.19 (see Annex III) were intensely discussed in Japan at the time. In these discussions, Japanese companies' expectations of the JFTC were twofold. On the one hand, competition law enforcement should be strengthened to address opportunistic behaviour such as 'patent ambush' (when a member of a standard-setting organisation withholds information during participation in the development and setting of a standard) or 'hold-up' for licensees (when standard-setting organisations include patented technology in standards). On the other hand, competition law enforcement should be loosened so that Japanese companies' own patent pooling would not be caught under competition law. METI encouraged active Japanese participation in global standard-setting to help domestic companies attain international competitiveness.

The 2007 Guidelines appear somewhat like a detailed list of Japanese companies' worries. Under Part 3, entitled Viewpoints from Private Monopolisation and Unreasonable Restraint of Trade (Article 3), patent pools came to the fore of the considerations. The guidelines also refer to possible competition problems with regard to 'buying up' existing patents of 'influential technologies' with a view to refusing to license these technologies to others. Here, the guidelines seem to refer to aggressive or opportunistic IPR enforcement ('patent trolling') of IP firms that manipulate their patents without undertaking manufacturing activities themselves. The Japanese electronics industry viewed this as increasingly problematic.

Patent pooling and standardisation seem to be by far the most preoccupying problem for many Japanese companies. Part 2 entitled Basic Principles on Application of the Antimonopoly Act enumerates two cases where restrictions may have major impacts on competition: (i) acts between competitors and (ii) 'influential technologies'. It explains that 'restrictions pertaining to the use of technology are likely to have a greater effect on competition when the technology is influential than when it is not'.[181]

Prior to the 2007 Guidelines, the JFTC adopted, on 29 June 2005, Guidelines Concerning Standardisation and Patent Pool Arrangements (Patent Pool Guidelines).[182] These guidelines express positive views towards standardisation and pooling as a means of ensuring compatibility between new products which, in turn, encourages market expansion. The guidelines contain somewhat attenuated competition rules concerning the formation of patent pools. Notably, the basic competition law rule that patent pools must be formed only by essential (non-substitutable, non-competing) patents[183] is attenuated if the following conditions are present: pooling the patents is reasonably necessary or has pro-competitive effects; or patent holders pooling their patents can license out their patent without going through the pool.

According to the Patent Pool Guidelines, if a patent holder has participated in the development of patent rights for specifications and is endeavouring to have its patented technologies adopted by the specifications, refusal to license will pose a legal problem with the AMA. The Patent Pool Guidelines include ‘extremely high licensing fees’ as a form of refusal to license,[184] but they do not consider these fees alone as a competition problem unless they are discriminatory or are combined with other anti-competitive conduct. With the rise of patent ‘ambush’ or ‘hold-up’ problems associated with standards, excessively high, cumulative royalties became a challenge to competition authorities since competition law does not normally provide criteria for evaluating or regulating prices.

In comments on the two guidelines, an opinion was expressed that high royalties imposed after opportunistic conduct, or as a form of refusal to deal, could be considered a violation of the AMA. The adopted Patent Pool Guidelines state that very high prices without reason could be equated with refusal to deal, but this alone could be a recognisable exercise of patents. Therefore, whether or not the conduct is anti-competitive and long-lasting will be determined by analysis of the overall impact on the market.[185] The 2007 Guidelines also explicitly state that excessively high royalties are equated with refusal to licence, which in itself is seen as an exercise of rights and normally constitutes no problem. If, however, such a restriction is found to deviate from or run counter to the intent and objectives of the intellectual property systems, it is not recognised as an exercise of rights and could constitute private monopolisation if it substantially restrains competition in a particular field of trade.[186]

Intermingling Criteria of Fairness and Substantial Restraint of Competition

The 2007 Guidelines show that the JFTC was becoming more willing to consider IPR cases under the prohibition of substantial restraint of competition. However, they do not clearly explain the differences between the methods of analysis from different viewpoints.

Depending on whether we are dealing with problems of market power or problems of fairness, not only the method of analysis but also the purposes and remedies to the competition problem would differ, as Joel Davidow, the former Chief of the Foreign Commerce Section of the DOJ, has noted:

> ‘If exclusive grant-backs are dangerous to the public because the licensor may use them to dominate a technology market, then it makes no competition-law sense to excuse such amassing of technology rights as long as the licensor pays a lot for such rights. Economic theory suggests that the greater the maket power being obtained, the more the monopolist will pay’.[187]

The 2007 Guidelines do not make a very clear distinction in the methods of analysis identifying (i) ‘substantial restraint of trade’, (ii) ‘unfair trade practice’, and its subcategory (iii) ‘dominant bargaining position’. Prior to the 2007 Guidelines, the concept of ‘dominant bargaining position’ was translated into English as ‘superior bargaining position’.[188] Restraint (i) would require a market power analysis, i.e. the determination of relevant market and the effects on competition in this market, whereas for (ii) a simple conduct analysis would suffice.

Most recently, the JFTC applied the first part of AMA Article 3 (prohibition of private monopolisation) to the ‘blanket-fee collection’ of music copyrights by the Japanese Society for Rights of Authors, Composers and Publishers

(JASRAC). Until 1 October 2001, JASRAC was the sole managing society of music copyrights in Japan by virtue of the Act on Copyright Management Services, which gave the permit only to JASRAC. Despite the liberalisation of copyright management, companies attempting to enter the market encountered difficulties, to which the JFTC justifiably paid attention.

The JFTC focused its attention on JASRAC's 'blanket-fee collection' where radio and TV stations were allowed unlimited use of JASRAC-managed music copyrights for a flat fee of 1.5 percent of their annual broadcasting revenue. On 27 February 2009, the JFTC issued a cease-and-desist order to JASRAC on the grounds that this amounted to exclusionary private monopolisation in violation of the first part of Article 3 of the AMA. According to the initial JFTC decision, the percentage of use for broadcasting was not reflected in JASRAC's royalties and therefore put the burden of additional cost on broadcasters that use music not included in JASRAC-managed rights. This dissuades broadcasters from paying royalties to other operators. As a consequence, musical works not managed by JASRAC were rarely used in broadcast programmes as other operators could secure hardly any musical works that could be used for broadcasting. The JFTC therefore concluded that JASRAC had excluded other management business operators from the field of licensing of managed musical works associated with broadcasting in Japan.

JASRAC disagreed with this decision and contested it pursuant to Article 49(6) of the AMA. At the hearing proceedings, JASRAC brought detailed evidence of entry into this market of an operator called e-Licence.

The JFTC's decision was annulled by the Fair Trade Commission on 14 June 2012 mainly on the grounds that the evidence leading to its initial decision lacked sufficient proof of e-Licence's exclusion from the market. For the JFTC to annul its own decision in its entirety at the hearing was rare, but the crucial question concerns what the appropriate criteria are for recognising 'anti-competitive' exclusion in collective licensing. The JFTC's initial investigators and hearing examiners concentrated on the details of e-Licence's activities. 'Exclusionary conduct' is defined in the 2009 Guidelines as 'various conducts that would cause difficulty for other entrepreneurs to continue their business activities or for new market entrants to commence their business activities, [and] thereby would be likely to cause a substantial restraint of competition in a particular field of trade'.[189] The fact that one operator had some activities in the market does not really explain whether JASRAC's blanket-fee collection had the power to substantially restrain trade in the relevant market, which would lead to market foreclosure. In cancelling its previous decision, the JFTC limited its analysis to determining whether or not there was exclusionary conduct. The JFTC did not show that this exclusion made it impossible for rival firms to compete effectively (i.e. the exclusion is part of an unlawful scheme to maintain JASRAC's market power and suppress competition). In other words, the JFTC found that the market power analysis was unnecessary because there was no exclusionary conduct.[190]

On 1 November 2013, upon a request of e-Licence to set aside the Commission's withdrawal decision in 2012, the Tokyo High Court remanded the case to the JFTC for re-examination. The Court ruled that the Commission's decision in 2012 was improper because JASRAC's royalty system did in fact have an exclusionary effect that hindered other operators' activities from entering the relevant market. The Court also stated that this exclusionary conduct was accompanied by intent that could not be justified by valid business reasons. It further found that JASRAC's practices substantially restrict competition in the relevant market and that this conduct is against public interest. Subsequently, the JFTC, as well as JASRAC, filed applications to the Supreme Court for a review of the Tokyo High Court's decision. These judicial processes, whereby the Court provided 'market power' analyses based on detailed evidence, might stimulate the JFTC, accustomed to using the 'fairness' approach, to evolve from the tradition of conduct analyses towards a market power analysis more oriented toward competition impact.

3.5 Implications for Developing Countries

Article 40.2 of the TRIPS Agreement suggests that 'anticompetitive abuse of intellectual property' necessitates a market-power approach to competition and not fairness criteria. Competition authorities are expected to assess 'competitive effects in the relevant market'. There may be resistance to such an approach. However, if the problems facing competition authorities are economic, market power analysis seems to be an appropriate solution. This would make the application of competition law more effective than the fairness approach in analysing the economic state of competition in the market. This seems to be one of the lessons from the Japanese experience, in which unfair trade practices were designated as forms of contractual terms.

Competition law can be useful for evaluating the pro- or anti-competitive effects of licensing agreements, particularly when supporting economic data is available. Other laws, such as patent or trademark law and civil law could be applied when 'abuse' of IPRs occurs against the public interest, but the conditions for their application differ considerably from those for competition law.

The 'simplified competition policy' may be a good starting point for competition authorities in developing countries where market institutions are not sufficiently developed to oversee the process of competition and innovation in the market. Many recommend that, at this initial stage, the form-based JFTC approach may be tempting because it is easier than market analysis. Depending on the types of problems that the competition authorities face, the form-based, per se and fairness approach may be useful, particularly for the industry itself to reflect on the competition implications of licensing contracts. To avoid inefficient over-regulation, however, administrations could set up market power screening and safe harbours. Applying simple, per se illegality rules to broad classes of conduct may waste resources without achieving the targeted results. Furthermore, it may not be realistic to assume that countries can easily switch from unfairness analyses to market power ones, as the Japanese example seems to suggest.

It would be necessary for the form-based, 'fast track' evaluation to evolve as soon as possible towards a more sophisticated, case-by-case, effect-based economic analysis, so that the actual competition effects of the licensing terms can be measured and competition promoted in the market. The formalistic JFTC intervention into licensing terms seems to have left the country a legacy of viewing competition problems in abstract, stereotyped terms. We have seen that licensee advocacy[191] does not make much economic sense. Furthermore, it is difficult to switch to a market power approach from the application of local licensee protective competition law based on fairness criteria, with a list of per se illegal conducts or practices.

It would be important for a government to ensure that a competition agency is available and able to carry out actual competition analyses of its own, based on clear and fundamental principles, supported by economic data and independent of general industrial policy. The TRIPS Agreement imposes high standards on competition authorities to assess 'competitive effects in the relevant market'.

For 'infant industry protection', it was important to have a coordinated policy of building public R&D infrastructure through higher education. The JFTC attempted to understand the innovation process in the market and made entrepreneurs aware of the long-term implications of their licensing contracts. This is worthy of being taken as a model.

ANNEX I: VARIOUS WAYS OF EVALUATING LICENSING TERMS

This part examines possible roles of IP licensing in broad economic contexts and compares various ways in which licensing terms have been analysed and evaluated in the EU and the US, either by national (and regional) courts or by competition authorities.

Today, licensing agreements between actual and potential competitors are generally assessed by the degree to which they harm competition in the absence of the license.[192] The US 1995 IP Guidelines propose that competition agencies evaluate pro-competitive benefits of licensing from the following angle: 'Intellectual property typically is one component among many in a production process and derives value from its combination with complementary factors. Complementary factors of production include manufacturing and distribution facilities, workforces, and other items of intellectual property. The owner of intellectual property has to arrange for its combination with other necessary factors to realize its commercial value. Often, the owner finds it most efficient to contract with others for these factors, to sell rights to the intellectual property, or to enter into a joint venture arrangement for its development, rather than supplying these complementary factors itself'. If two patent holders who can make substitute products accuse each other of infringing their respective patents and settle to resolve their disputes by cross-licensing and allocating exclusive territories to each other, this licensing agreement can eliminate competition that would have occurred in the absence of the license. If the patent claims are strong, the settlement is not likely to be anticompetitive, because there were no sales of the products covered by these blocking patents 'but for the cross-license', and, therefore the settlement cannot harm competition.[193]

(i) Horizontal and vertical relations

If an agreement is entered into between actual or potential competitors, it is said to be 'horizontal'. If an agreement involves two firms in a buyer-seller relationship, it is 'vertical'.[194] Firms may be treated as competitors only when competition would exist in the absence of the license. Licensing agreements that restrict intra-technology competition are therefore treated as agreements between non-competitors.[195] Most licensing arrangements are vertical and do not involve licences between actual or potential competitors. However, these arrangements may affect competition that would have occurred in the absence of the license. An example is a licensing arrangement between a licensor and a licensee that forecloses competition from new entrants.

According to Hovenkamp et al, the purely vertical concerns that arise from licensing or other transfers of intellectual property rights are: (1) foreclosure or, closely related, (2) raising of a rival's costs, or (3) facilitation of upstream or downstream collusion.[196] Restraints contained in intellectual property licensing contracts may be treated by competition authorities and courts in line with general treatment for horizontal and vertical agreements.

IP licences create relatively long-term arrangements among vertically related seller (licensee) – buyer (lisensor) firms and, once developed, the licensed technologies (or marks) can be used by many firms without limit and often in many different markets. IP licensing has therefore played a vital role in the dissemination of technologies, contributing to the spread of innovation across industries. At the same time, licensing could establish close horizontal relations among actual or potential competitor firms. In certain cases, this could encourage collusion, oligopoly and exclusion of rivals. It could also facilitate price-fixing or market sharing/partition, or lessen the likelihood of challenges to invalidate patents or reduce incentives to invent better alternatives.

Major anti-competitive concerns arising from IP licensing come from these horizontal relations. Restrictions between licensors and licensees

– which could be 'vertical' depending on how 'competitors' are defined – could be pro-competitive (see the EU Maize Seeds case[197]) and therefore the actual effects of such restrictions on the market must be evaluated. IP licensing agreements have received special treatment by courts and competition agencies in the US, particularly when they cover horizontal price fixing or market allocation.

In the EU, the European Commission was lenient on manufacturing exclusivity but hostile to territorial exclusivity, probably due to the Commission's understanding of market integration as well as its static appreciation of IPRs. As a consequence, the Commission had taken the ex post view that when both the licensor and the licensee are producing and selling substitute products, they were competitors and therefore in a horizontal relationship.[198] This view had been criticised because it was based on the understanding of licensor-licensee relations after the technology was successfully developed. The US IP Guidelines take into account the counterfactual, i.e. the relationship at the time the commitment is made to invest and consider the relationship between a licensor and its liensees 'horizontal' when they would have been actual or likely potential competitors in a relevant market in the absence of the licence.[199]

In the EU, the Commission Regulation on the application of Article 81(3) EC (today 101(1) TFEU) to categories of technology transfer agreements (TTBER see supra note 55) reflected a radical transformation from the European Commission's hitherto static view of IPRs and formalistic approach to IP licensing, which the Court of Justice of the European Union corrected in the Maize Seed case. In its 1982 judgment, the Court held that the 'open exclusive licence' – i.e., the grant of a licence under which the licensor agrees not to compete with the licensee in his territory or appoint other licensees within the territory – did not infringe Article 101(1) TFEU.

The Court's reasoning was that absent such protection from competition, the licensee might be deterred from accepting the risk of cultivating or marketing the product, with the result that the dissemination of the new technology would be damaged. On the other hand, the Court maintained that a licence that imposes upon the licensee 'absolute territorial protection' by eliminating competition from parallel importers or licensees in other territories is contrary to Article 101(1). This judgment led to the Commission's 1985 modification of the Guidelines on Patent Licensing and its 1989 Regulation relating to the group exemption for know-how licensing agreements.[200] Reflecting the Maize Seed judgement, the Preamble of the 1985 Guidelines stated that group exemption would be granted to exclusive licensing for the introduction of new technologies and protection. In 2004, the European Commission adopted a new method of competition analysis in the TTBER.

(ii) Legal Bases: US and EU examples

In the US, IP licensing could come under scrutiny under Section 1 or Section 2 of the Sherman Act (as well as Article 5 of the Federal Trade Commission Act). Section 1 of the Sherman Act[201] declares cartels and other forms of combination in restraint of trade illegal,[202] while Section 2 prohibits persons to 'monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolise any part of the trade or commerce' among several States, or with foreign nations. Under US Patent Law, defendants in an infringement action or a contract action can claim that the patentee has 'misused' his/her patent and therefore is not entitled to the requested relief.

Examples of patent misuse include tying (which, it was believed, extended the legal monopoly to the tied product market),[203] refusal to license, resale price maintenance, price discrimination, non-contest covenant, mandatory package licensing, etc. Tying could be caught both under antirust and misuse, although the criteria of judging illegality or misuse have changed over time.[204] In the past, the US courts tended to presume the existence of market power in the tying product where the tying item was patented or copyrighted.[205] In 1953, Congress added Sections 271(c) and (d) to the US Patent Code overruling previous case law. However, the patent misuse doctrine has been criticised as a super per se rule making a contract unenforceable without examining the economic effects (particularly its pro- and anti-competitive effects) of the contested use of patents. For this reason, Section 271(d)(5)[206] was amended in 1988 to specify that no patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of tying, 'unless the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned '. Since the 1980s, the so-called 'leverage' theory, according to which tying arrangements can be used to extract double monopoly profits, was rejected. Today, the central concern of tying is foreclosure, i.e. that a tying arrangement would make it more difficult for rivals in the tied product market to find adequate trade.[207] However, anticompetitive injury in such a case is unlikely, if the defendant has a non-dominant market share.[208]

US courts have indicated varying criteria for judging when the rights holder's ability to control the sales conditions becomes a problem under competition law, although these criteria have constantly been contested. In 1902, the US Supreme Court in E Bement & Sons v National Harrow Co.,[209] enjoined one of several competing licensees not to sell below the licence-prescribed price. However, in 1926, the Supreme Court in United States v General Electric Co.[210] took a different approach and justified General Electric's royalty rate as securing the company's profits and making available the licensed technologies for which the retail price system was maintained. According to the Supreme Court, 'as a patentee has a statutory monopoly of the right to make, use, and sell the patented article, the comprehensiveness of his control of the business of selling is not necessarily an evidence of illegality in method'.[211] Thus, the Court reasoned that the patentee also had the lesser right of requiring the licensee to control the patented article (GE rule). This rule was established before the US went through a period where general views became more severe towards the patentee's rights, and courts made several attempts in subsequent cases to overturn the rule, without success.

Box 3: United States v General Electric Co., 272 US 476 (1926)

GE had licensed Westinghouse to manufacture and sell lamps under GE's patents at the price level fixed by the company for its distributors. The government alleged that this system of distribution was merely a device to enable GE to fix the resale prices of lamps and that the so-called agents were in fact wholesale and retail merchants handling the lamps under resale price agreements. The Supreme Court justified this system as reasonably adapted to secure for the patentee the pecuniary reward of its invention. In other words, the Court construed that setting a minimum price may be the most efficient way to protect the patentee, to encourage licensing and to ensure that GE obtained its monopoly reward. As long as a patentee does not attempt to have ownership of the articles his purchaser shall sell, it makes no difference how widespread his monopoly is (272 US 485). Accordingly, the Court considered it legal for GE to condition the license on Westinghouse selling lamps at prices that would not interfere with GE's desired profits.

In most cases where price-fixing licences were held to be illegal under the Sherman Act, such licences seem to have been the means of forming and operating a cartel.[212] This rule, however, seems to apply only to cases involving a unilateral licenser and a single licensee.[213] Licence combinations, such as arrangements between two patentees for cross-licensing of their interdependent product patents and for licensing exclusively by one of them for other manufacturers to make and vend under both patents, together with those entered into separately with other licensees, could violate Section 1 of the Sherman Act. The Supreme Court, in United States v Line Material Co.,[214] held that a price-fixing arrangement between two or more patentees transcends the limits of the patent monopoly granted to each of them and violates Section 1 of the Sherman Act, no matter how advantageous it may be to stimulate the broader use of the patents (i.e. per se illegal). The Court viewed cross-license arrangements that contain a price limitation as a horizontal price-fixing conspiracy using a price-fixing license to help form and operate a cartel.[215]

(iii) Refusal to deal

For Section 2 of the Sherman Act, which prohibits monopolisation, the proof of acquisition or maintenance of monopoly power has been much debated.[216] For example, complex questions have been raised over whether or not it is necessary to show specific intent[217] and how to distinguish exclusionary conduct from competitive behaviour.[218] Likewise, Article 102 of the TFEU prohibits abuse of a dominant position but the proof of 'abuse of dominant position' gave rise to debate over the treatment of the refusal to license. In the US and the EU, unilateral refusal to deal (license) generally does not raise competition problems. However, each country has different criteria for recognising when such refusal becomes a competition problem.

In a very few cases, licensing was ordered by the European Commission[219] and endorsed by the Court of Justice, which has developed certain parameters for analysing these circumstances.[220] No US court has imposed antitrust liability for a unilateral refusal to license intellectual property unless there was additional illegal conduct.[221]

According to the 2004 TTBER,[222] licensing and other technology transfer agreements 'will usually improve economic efficiency and be pro-competitive as they can reduce duplication of research and development, strengthen the incentive for the initial research and development, spur incremental innovation, facilitate diffusion and generate product market competition.' The Canadian Competition Bureau has also observed that, '[i]n the vast majority of cases, licensing is pro-competitive because it facilitates the broader use of a valuable IP right by additional parties'.[223]

In the EU, territorial restriction had been less tolerated in vertical relationships for the sake of achieving market integration of the European Union. However, under the TTBER, a practice prohibiting the licensor from licensing the technology to another licensee in a particular territory can be block-exempted.[224] In a non-reciprocal agreement, therefore, the parties may prohibit sales (possibly including passive sales)[225] by one party into the exclusive territory or to the exclusive customer group reserved for the other party.[226]

Most vertical restraints have a safe harbour from the application of competition law, which the US IP Guidelines set at a collective market share of 20 percent or less. The TTBER exempts technology transfer agreements from the application of Article 101(1) TFEU, if the undertakings[227] of a party to the agreement are competing,[228] do not contain any hardcore restrictions listed in the TTBER and their market share does not exceed 20 percent of the affected technology and product market. When the undertakings are not in competition, Article 101(1) TFEU does not apply if the market share of each of the parties does not exceed 30 percent of the affected relevant technology and product markets and does not contain any hardcore restrictions.[229] The hardcore restrictions for non-competitors are different from those for competitors and are generally more lenient.

When a licence prevents or restrains the licensee from licensing, selling, distributing, or using competing technologies, it may foreclose access to, or increase competitors' costs of obtaining, important inputs or facilitate coordination to raise price or reduce output. They may, however, also have pro-competitive effects. For example, a licensing arrangement that prevents the licensee from dealing in other technologies may encourage the licensee to develop and market the licensed technology or specialised applications of that technology.[230]

ANNEX II: LIST OF LAWS, GUIDELINES AND COMPETITION AUTHORITIES' REPORTS

Sherman Act, 647, 26 Stat. 209, 15 U.S.C. §§ 1–7

Federal Trade Commission (FTC) Act, 15 U.S.C §§ 41-58

DOJ-FTC, Antitrust Guidelines for the Licensing of Intellectual Property (US 1995 IP Guidelines)

DOJ-FTC, Antitrust Enforcement and Intellectual Property Rights: Promoting

Innovation and Competition, April 2007 (2007 DOJ-FTC Enforcement Report)

Prohibition of Private Monopolisation and Maintenance of Fair Trade (AMA)

JFTC Criteria for Approving International Technology Introduction Contracts (1968 Criteria for Approval)

JFTC Guidelines Concerning Unfair Trade Practices with regard Regard to Patent and Know-How Licensing Agreements (1989 Guidelines)

JFTC Guidelines for Patent and Know-How Licensing Agreements under the Antimonopoly Act (1999 Guidelines)

JFTC Guidelines Concerning Standardisation and Patent Pool Arrangements (2005 Patent Pool Guidelines)

JFTC Guidelines Concerning the Use of Intellectual Property under the AMA (2007

Guidelines)

UNCTAD draft code of conduct for the transfer of technology (TOT code)

Article 101 TFEU (former Article 81 TEC) concerning prohibition of anti-competitive agreements

Article 102 TFEU (former Article 82 TEC) concerning prohibition of abuse of a dominant position

European Commission, 2004 Regulation on the application of Article 81(3) EC (today 101(3) TFEU) to categories of technology transfer agreements (2004 TTBER)

European Commission, 2004 Guidelines on the application of Article 81(3) of the Treaty on the application of Article 81 of the Treaty to technology transfer agreements (2004 TTBE Guidelines)

European Commission, DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses' (2005)

European Commission, 2014 Regulation on the application of Article 101(1) TFEU to categories of technology transfer agreements (2014 TTBER)

Communication from the Commission, Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements (2014 TTBE Guidelines)

ANNEX III: MAJOR AMENDMENTS TO THE AMA AND THE ADOPTION OF IP GUIDELINES

The Anti-Monopoly Act (Act No. 54 of 14 April l947 concerning Prohibition of Private Monopolisation and Maintenance of Fair Trade, AMA) was promulgated as part of the post-war economic democratisation measures. The AMA was modeled after Sections 1 and 2 of the Sherman Act, as well as Section 5 of the Federal Trade Commission Act. The immediate goals of these measures in the industrial sector concerned the dissolution of zaibatsu (family-controlled combines) and excessive concentration of economic power. These measures were reflected in such AMA provisions as the prohibition to establish holding companies, the acquisition (above 5 percent) of competitor companies by financial businesses, interlocking directorates among companies in competitive relations and the prevention of international cartels. The AMA was composed of three basic prohibitions: private monopolisation, unreasonable restraint of trade and unfair methods of competition. To supplement the second prohibition, a notification system for international agreements was introduced. The Occupation Authorities suggested a special law to prevent anti-competitive activities by trade associations (Act No.191 of 1947). This law was integrated into the AMA in 1952.

1949 Amendments

With a view to re-activating private economic activities and to encourage investment, the above prohibition measures were attenuated.

1953 Amendments

Per se illegality of certain types of cartels was abolished. For all allegations of Article 3, second part, of the AMA, 'unreasonable restraint of trade' (price or quantity fixing cartels, bid-rigging, etc.), proof of 'substantially restraining competition' became necessary. The system of authorising cartels for rationalisation and depressions was introduced. Prohibition of financial holding companies and the limitation of holding corporate bonds were abolished. The JFTC established twelve General Designation items of unfair trade practice.

1968 The Adoption of Criteria for Approving International Technology Introduction Contracts

1977 Amendments

Following the increase of JFTC's intervention in cartels in the 1970s, the 1977 amendments introduced various measures to strengthen the enforcement of the AMA. For example, the JFTC was empowered to order payment of surcharges against cartel participants and to order divestiture of part of a business in a monopolistic situation. Regulation of oligopolistic market structures was strengthened.

1989 The Adoption of Patent and Know-How Licensing Guidelines

1982 The JFTC's General Designation of unfair trade practice was amended to include items 1 to 16.

1997 Amendments

The general prohibition of holding companies was abolished and transformed into the control of excessive concentration of economic power by stock-holding. The notification obligation of international agreements (AMA Article 6(2)) was abolished.

1998 Amendments

Notification obligations relating to interlocking directorates among companies were abolished.

1999 Amendments

Exceptional measures relating to rationalisation/depression cartels, as well as those based on other Ministries' regulations, were abolished.

1999 The Adoption of Patent and Know-How Licensing Guidelines

2000 Amendments

Exceptions related to cases of natural monopolies were abolished, and a system of injunctions and damages against AMA-illegal conduct was instituted. Former Article 23 dealing with exceptions relating to IPRs was renumbered as AMA Article 21.

2002 Amendments

Notification obligations and control of stock-holding were further attenuated.

2003 Amendments

The JFTC came to be attached to the Ministerial Cabinet, presumably to ensure its independence.

2005 Amendments

Surcharges were increased, and early termination of illegal conduct and recidivism came to be considered in the calculation of surcharges. The leniency system was introduced.

2007 Adoption of new Guidelines Concerning the Use of Intellectual Property under the AMA.

2009 Amendments

The surcharge system for exclusionary monopolisation and part of unfair trade practice was instituted (Article 2(9) Items 1-5 were added). General Designations were modified (Item 13 was renumbered as Item 12). Some modifications to the leniency system were introduced.

ANNEX IV: MAJOR CASES OF IP LICENSING INVOLVING STANDARDISATION PROCESSES

1. Standards Relating to Information Technologies (IT)

Rambus

Technology licensor Rambus failed to disclose its patents on synchronous dynamic random-access memory chips (SDRAMs) during the standardisation process at the Joint Electron Device Engineering Council (JEDEC, the standards developer for the microelectronics industry). The central question was whether Rambus behaved improperly during its DRAM standardisation committee membership and, if so, under what law such behaviour would be illegal. Rambus' conduct resulted in a number of disputes. The company sued various chipmakers for patent infringement including Infineon. Infineon countersued for common-law fraud based on Rambus' alleged abuse of the standard-setting process. The Judge and jury at the North California District Court found Rambus not guilty of acting improperly as a member of the JEDEC. However, Hynix, Micron and Nanya refused to pay licensing fees for their SDR and DDR SDRAM chips because of the alleged misconduct by Rambus. In June 2002, the US Federal Trade Commission charged Rambus with violating federal antitrust laws by deliberately engaging in a pattern of anticompetitive acts – aimed at deceiving an industry-wide standard-setting organisation – which caused or threatened to cause substantial harm to competition and consumers. The charges were litigated in an administrative trial within the FTC, which dismissed them in February 2004. The FTC Complaint Counsel appealed the decision to the Federal Trade Commission, which overturned the initial ruling in July 2006. This reversal was overturned by the District of Columbia Court of Appeals on 22 April 2008, which found that the FTC had not established that Rambus had harmed the competition. Finally, on 23 February 2009, the US Supreme Court rejected the FTC's bids to impose royalty sanctions on Rambus via antitrust penalties

The European Commission, for its part, sent a Statement of Objections to Rambus on 30 July 2007 (case COMP/38.636). The Commission's preliminary view was that Rambus infringed EC Treaty rules on abuse of a dominant position (then Article 82 EC, now Article 102 TFEU) by claiming 'potentially abusive royalties' for the use of certain patents for DRAM. This, according to the Commission, was subsequent to the intentional deceptive conduct of Rambus in the context of the standard-setting process by not disclosing the existence of the patents which it later claimed were relevant to the adopted standard (a so-called 'patent ambush'). In December 2009, Rambus announced its intention to settle with the Commission. On 9 December 2009, the Commission adopted a decision which set royalty caps for the SCRAM and DDR standards adopted during Rambus' JEDEC membership. As a consequence, Rambus committed to a maximum royalty rate of 1.5 percent for the subsequent standards (i.e. below the 3.5 percent it had charged for DDR in its existing contracts).

Cases involving the European Telecommunications Standards Institute (ETSI)

ETSI develops telecommunications standards for equipment makers and network operators in Europe. In ex-officio case 37926 (Sun/ETSI) regarding the ETSI GSM 03.19 (GSM stands for Global System for Mobile Telecommunications), the European Commission was concerned that an artificial barrier to entry in the market for GSM smart cards could have been erected as a result of: (i) the late disclosure and identification of claimed essential intellectual property rights in the standard; and (ii) the apparent non-essentiality of the claimed essential IPR. In general, the Commission does not intervene in the standard-setting process as standards, if properly developed, promote the efficient formulation of new technologies and are beneficial to both the consumer and the economy, particularly in some high technology fields. In this case, however, the Commission exceptionally looked into the standardisation agreement's effect on excluding actual or potential competitors from the market as a result of non-transparent procedures and the non-indispensability of the standardisation agreement in the way that the digital cellular telecommunications system was being formulated. IPRs essential or potentially essential to the present document may have been declared to ETSI. The Commission requested Sun to provide an IPR declaration, but the case was settled after the ETSI modified its rules, and no formal decision was adopted by the Commission (2004/C 51 E/03226.2.2004. Written Question E-0553/03, 27 February 2003).

2. Standards, Anti-Pollution Technologies (marks) and Competition

Union Oil Company of California (Unocal)

Governmental (or quasi-governmental) entities may adopt standards put forward by private firms that their competitors claim to be anticompetitive. When approaching governments, firms may give false information that distorts the standardisation processes. In these cases, the firms may rely on the Noerr-Pennington Doctrine, according which qualifying petitions to the government cannot be antitrust violations, even if the intent or effect of the requested action is anticompetitive.[231]

The Union Oil Company of California, known as Unocal, allegedly proposed standards for reformulated low-emissions gasoline (RFG) to the California Air Resources Board (CARB, California's air quality agency) while perfecting its patent claims covered by these standards. On 31 January 1995, Unocal published its registered patents relating to Phase 2 CARB gasoline. On 13 April 1995, six oil refiners brought action to declare Unocal's related patents invalid. Unocal filed an action for the infringement of its patents by these refiners. It also enforced its patent portfolio against producers.

The FTC's 2003 complaint stated that, in the early 1990s, Unocal illegally acquired monopoly power in the technology market for producing Phase 2 CARB gasoline by misrepresenting certain information as non-proprietary and in the public domain, while at the same time pursuing patenting that would enable it to charge high royalties if the information was used by CARB. Unocal argued that its communications with CARB and various industry groups were protected by the Noerr-Pennington Doctrine.

In 2004, the FTC reversed the decision by the administrative law judge (ALJ) which examined the factual developments of the case. The ALJ had stated that the Noerr-Pennington Doctrine was applicable to this case. The FTC overturned this interpretation and stated that deceptive practices can constitute abuses of administrative or judicial processes and may result in antitrust violations and that misrepresentation can warrant denial of Noerr-Pennington protection if: (i) the petitioning occurs outside the political arena, and (ii) the misrepresentation is deliberate, factually verifiable, and central to the outcome of the proceeding or case. In August 2005, Unocal merged with Chevron Corporation and became a wholly owned subsidiary. The Unocal antitrust questions were examined iIn the merger clearance procedures under the Clayton Act (see, In the Matter of Union Oil Company of California, Docket No. 9305 and in the Matter of Chevron Corporation and Unocal Corporation, File No. 051-0125, Docket No. C-4144, 2 August 2005).[232] Chevron and Unocal agreed not to enforce the standards-related patents and not to collect royalties.

Der Grüne Punkt – Duales System Deutschland GmbH v Commission of the European Communities

The German Packaging Ordinance of 1991, as well as EU Directive 94/62 on packaging and packaging waste, requires manufacturers and distributors to take back, free of charge, used sales packaging from consumers at or near the point of sale. Manufacturers and distributors that adhere to a comprehensive collection system, such as the one run by Duales System Deutschland AG (DSD), are exempt from this obligation. DSD created the Green Dot (Der Grüne Punkt) trademark and ran a comprehensive national system for the collection and recycling of sales packaging in Germany. Its customers had to pay fees corresponding to the volume of packaging bearing the Green Dot logo rather than fees corresponding to the volume of packaging for which DSD was actually providing a take-back and recycling service.

In 2000, the European Commission objected to the provision in the DSD agreements and, in 2001, it adopted a decision according to which DSD abused its dominant position and violated Article 102 of the TFEU when it claimed the full fee for use of its logo in situations where it provided no service because the collection and recycling was carried out by competitors. DSD enjoyed a quasi-monopolistic position in this market, where the company's share was approximately 80 percent. In the Commission's view, the licence fee requirement meant that customers had no realistic economic possibility of contracting with DSD's competitors, nor the possibility of paying for services à la carte, thus disadvantaging its customers and preventing the entry of competitors in the market concerned. Whilst paying for the service provided by DSD's competitors, these customers would have to either pay an additional fee to DSD (the only provider of a comprehensive countrywide system), or they would have to organise separate packaging, distribution and merchandising lines. DSD appealed the Commission decision (Case T-151/01), but it was rejected on 24 May 2007. On appeal to the European Court of Justice, DSD's claims were again dismissed (Case C-385/07 P).

New Refrigerant HFO (hydro- fluoro-olefin) for Cars (not yet decided by the Commission)

A new refrigerant known as HFO-1234yf, intended for use in future car air conditioning systems, was developed by Honeywell and DuPont based on joint research and development, licensing and production agreements. This refrigerant was selected by a process conducted under the auspices of the Society of Automotive Engineers (SAE, which represents the interests of all groups in the automotive sector) as a suitable global replacement due to its coolability, energy efficiency and its potential to decrease global warming. In 2006, refrigerants with global warming potential (GWP) above 150 were prohibited by EU Directive 2006/40[233] for use in new cars after 2011 and for continuing production after 2017. As a result, the previous refrigerant HFC-134a no longer met EU rules due to its GWP of 1410. The GWP of HFO-1234yf is four.

In 2011, the European Commission opened antitrust proceedings against the agreements between Honeywell and DuPont under Article 101 TFEU.[234] It is also investigating under Article 102 TFEU whether Honeywell may hold and abuse a dominant position regarding the refrigerant. The Commission is also examining whether Honeywell engaged in deceptive conduct during the evaluation of 1234yf between 2007 and 2009. The company is alleged not to have disclosed its patents and patent applications while the refrigerant was being assessed and then failed to grant licences on fair, reasonable and non-discriminatory (FRAND) terms.

ANNEX V: NOTABLE JFTC ENFORCEMENT CASES INVOLVING IPRS

Pachinko Patent Pool (JFTC Recommendation Decision, 6 August 1997)

A patent management company (Nittokuren) and the licensees of Nittokuren who were members of Japan Game Machine League (NYK), manufacturers of Pachinko machines, formed a patent and utility models pool. Their share in the Pachinko machine market suggested that the patent pool was a major player in that market. Nittokuren controlled the price and output of Pachinko machines and, with the pool members, adopted a policy of not allowing any new entry in this market without a license from that pool. The JFTC concluded that the pool's refusal to license new entrants constituted monopolisation. In this case, the JFTC considered that the exercise of IPRs acquired from the third party could constitute an exclusionary private monopolisation.

Hokkaido Newspaper (JFTC Recommendation Decision, 28 February 2000) involving abusive applications for trademark registration; (3) Manhole Cover (JFTC Recommendation Decision, 10 September 1993); Five manufacturers of manhole covers for public sewage systems fixed prices and allocated markets in Kitakyushu City. One of these companies, Hinode, held utility models which were implemented in the specification adopted by this city and others were its licensees. Hinode argued that the share allocation constituted the legitimate exercise of its utility models and therefore was not illegal under the AMA. The JFTC concluded that market allocation was agreed among the five parties before Hinode's models were adopted in the manhole specification of the above city; (4)

Asahi Denka (JFTC Recommendation Decision,13 October 1995)

The top manufacturer in Japan of epoxy plasticizers, Asahi Denka, agreed with Chang Chun Petrochemical (Taiwan) to grant a know-how license in which the former obliged the latter not to manufacture or sell the said product in Japan for ten years after the expiration of the know-how licensing (and required the latter to obtain prior written consent from the former if Chang Chun wished to proceed with the production). The JFTC decided that this constituted unfair trade practice (Item 13).

Microsoft software tying case (Recommendation Decision, 20 November 1998)

MS Japan had tied its word-processor software Word to its Excel software since 1995 and its personal information manager software Outlook to Excel and Word since 1997, when it licensed the software to personal computer (PC) manufacturers (Fujitsu, NEC, IBM Japan, Compaq Computer, etc.). The JFTC decided that this constituted unfair trade practice Item 10 (tie-in sales).

Sony Computer Entertainment (SCE), JFTC Hearing Decision, 1 August 2001

SCE called on the retailers of video game equipment (PlayStation) and related game software to comply with resale prices and prohibited dealings in used goods and resale through unauthorised channels and made wholesalers provide PS software only to retailers. They also made such retailers provide PS software only to general consumers. The JFTC found these acts to be in violation of Article 19 of the AMA (falling within Items 12 (Resale Price Restriction) and 13 (Trading on Restrictive Terms)) of the JFTC Designation of Unfair Trade Practices, and it issued a hearing decision against SCE.

Song Ringtone Providers, JFTC Hearing Decision, 28 July 2008

Sony Music Entertainment (Japan) and four other companies entrusted Label Mobile to provide ringtone services for mobile phones and refused to license to others partial transmission of performers' singing voices in a master recording (Master Right). On 24 March 2005, the JFTC issued a Recommendation and stated that to stop licensing the Master Right to other song ringtone providers fell under the provision of Item 1 of unfair trade practices (JFTC Designation, 1982) and violated Article 19 of the AMA. The three parties did not consent and, after the hearings, the JFTC on 28 July 2008 adopted a hearing decision against SME and three others. On appeal, the Tokyo High Court rejected the request by the four companies for nullification. The appeal by the three parties to the Supreme Court was rejected on 18 February 2011.

Japanese Society for Rights of Authors, Composers and Publishers (JASRAC)

See Section 3.4 of this paper.

ENDNOTES

1 J Watal, *Intellectual Property Rights in the WTO and Developing Countries,* Kluwer Law International 2001, at 305.

2 JJGorlin, *An Analysis of the Pharmaceutical-related Provisions of the WTO TRIPS (Intellectual Property) Agreement*, IP Institute 1999, at 15: Watal, Ibid. at 305.

3 IPRs are often viewed as monopoly power, but on the product or services markets, substitutes may be readily available. In April 1995, the US Department of Justice (DOJ) & Federal Trade Commission (FTC) released the *Antitrust Guidelines for the Licensing of Intellectual Property* (US 1995 IP Guidelines), which stated that 'the Agencies do not presume that intellectual property creates market power in the antitrust context '. In the US, where competition authorities tend to consider consumer welfare rather than economic (general) welfare, a product market that is affected by the arrangements is often analysed (i.e. direct sale of innovation itself, i.e. the market for the process and output of the act of innovating) as a relevant market. Thus, the US antitrust agencies emphasise the aspects of licensing arrangements that are likely to affect adversely 'the prices, quantities, qualities, or varieties of goods and services either currently or potentially available, Para. 3.2.2.

4 E Fox, 'Trade, Competition, and Intellectual Property – TRIPS and its Antitrust Counterparts', in 29 *Vanderbilt Journal of Transnational Law,* May 1996 at 497; H Ullrich , 'Expansionist Intellectual Property Protection and Reductionist Competition Rules: A TRIPS Perspective', in K Maskus and J Reichman (eds.), *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (2005) at 726. These authors see TRIPS Article 40 as reflecting the US thinking more than that of developing countries.

5 The 4th UNCTAD Assembly in May 1976 adopted a resolution on the elaboration of a code of conduct for the transfer of technology (UN Doc. TD/CODE TOT/1/Add.¤(1978).

6 P Roffe, 'Control of Anti-competitive Practices in Contractual Licences under the TRIPS Agreement', in C Correa and A A Yusuf (eds.) *Intellectual Property and International Trade – the TRIPs Agreement,* Kluwer Law International; 2nd edition, London and Boston, 1998 at 271. Draft International Code of Conduct on the Transfer of Technology (un-adopted), http://stdev.UNCTAD.org/compendium/documents/totcode%20.html. On the negotiations on the draft code, see S J Patel, P Roffe and A Yusuf (eds.), *International Technology Transfer – The Origins and Aftermath of the United Nations Negotiations on a Draft Code of Conduct*, Kluwer Law International, The Hague 2001, 3 et seq., 259 et seq; H Yamane, *Interpreting TRIPS,* Hart Publishing, Oxford, UK, March 2011 at 45-58.

7 Act No. 54 of 14 April l947 concerning Prohibition of Private Monopolisation and Maintenance of Fair Trade (AMA) as amended (see Annex II).

8 Interview with Pedro Roffe, Geneva, 15 September 2010. Decision 24 of the Andean Pact was adopted by the Andean Pact Commission on 31 December 1970 and subsequently established a system called the Common Regime of Treatment of Foreign Capital and Trademarks, Patents, Licences and Royalties. It required all agreements relating to the import of technology to include clauses on the 'contractual value of every aspect of the transfer'. The intent of this rule was to limit external financial influence and ensure that the local private sector would make a greater contribution to national development. On 11 May 1987, Decision 24 was superseded by Community Decision 220, which provided greater flexibility in the treatment of foreign capital. The Andean Community is based on the 1969 Cartagena Agreement,

which established the Andean Pact. Bolivia, Chile, Colombia, Ecuador and Peru were original members. Chile withdrew and Venezuela joined in 1973, but the latter, too, left in April 2006.

9 Brazil requires licensing contracts that have effects on third parties to be registered at the Instituto Nacional da Propriedade Industrial (INPI). If they are not registered at the Banco Central do Brasil (BACEN), they are not eligible for international royalty transfer or deduction from taxable income. Section 62 of the Industrial Property Law (Law No. 9,279, of May 14, 1996); Section 21, Trademark Law; Section 140, Design Law. Section 63 of the Brazilian Industrial Property Law stipulates that '[a]n improvement introduced in a licensed patent shall belong to the party that makes the improvement, and the other party is entitled to a preferential right to the licensing thereof' and makes grantback conditions per se illegal. Grantback conditions refer to the agreement in a licensing contract that the licensee grants the licensor the right to use the patents the licensee obtained with respect to any improvements to that licensed technology. Assignback conditions concern the agreement that the licensee gives the licensor the ownership of such patents.

10 Fox, *supra* note 4 at 497.

11 UNCTAD–ICTSD, *Resource Book on TRIPS and Development (Resource Book),* Cambridge University Press, 2005, at 543-544.

12 Annex I, II, III, UN Doc. TD/CODE TOT/1/Add.1 (1978).

13 Draft international code of conduct on transfer of technology (1985), TD/B/AC.11/L.12, http://unctad.org/en/docs/tbldcac1d18.en.pdf

14 On the 'rule of reason' analysis, see Philip Areeda, *The "Rule of Reason" in Antitrust Analysis: General Issues*, Harvard University School of Law. Cambridge, Massachusetts. June, 1981.

15 Square brackets [ ] indicate absence of agreement.

16 On grantback provisions, the draft code added the following explanation: transfer to the licensor the improvements arising from the acquired technology through license, on an exclusive basis [or] without offsetting consideration or reciprocal obligations from the supplying party, or when the practice will constitute an abuse of a dominant market position of the supplying party.

17 See, for example, Guidelines for Negotiations that Strike a Balance Between Intellectual Property Rights and Development Objectives, Communication from Peru, MTN.GNG/NG11/W/45, 27 October 1989; Communication from India, MTN.GNG/NG11/W/37, 10 July 1989; Communication from Brazil, MTN.GNG./NG11/W/57, 11 December 1989; Communication from Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania and Uruguay, MTN.GNG/NG11/W/71, 14 May 1990.

18 Communication from India, *ibid*, paras.11 and 13 referring to compulsory licences.

19 Communication from India, *op.cit* , para. 6: '…a patent system is not essential as an incentive to encourage inventions and investments in R&D for the following reasons: (1) it provides R&D incentives only in limited sectors and even in their case, the motivation for obtaining a patent is often the apprehension that someone else would come upon the same discovery or invention; (2) investment in R&D and technological breakthroughs are taking place in a wide variety of industries where the patent system is not considered to be important; (3) investments in R&D are made by firms for maintaining their technological leadership and market position and they would do so regardless of the availability of patent protection; (4)

the underlying know-how to operate the patent is kept secret in order to prevent others from operating the patent on the basis of the patent disclosure.

20 Guidelines for Negotiations that Strike a Balance Between Intellectual Property Rights and Development Objectives, Communication from Peru, supra note 17, states that: ‘The following cases are among those that should be considered: that the supply of technology or trademark licence should be accompanied by the obligation for the host country or undertaking to acquire goods or services from a specified source; that the owner should reserve the right to fix the sales price of the products manufactured using the technology in question or the right to use the trademark; the imposition of restrictions on the volume or structure of output and the prohibition or limitation of exports to specific countries of the products manufactured using the patent or trademark; the prohibition of the use of competing technologies; the payment of royalties for unused patents or trademarks; the imposition of a purchase option for the supplier of the technology and/or trademark; or the requirement that any inventions or improvements obtained as a result of the use of the technology in question should be transferred to the supplier of the patent’.

21 Communication from India, *supra* note 17, para. 2.

22 MTN.GNG/NG11/W/76, 23 July 1990. The Report in the Annex explains that it was prepared on the basis of the draft legal texts submitted by the European Communities (NG11/W/68), the US (NG11/W/70), Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania and Uruguay, and subsequently sponsored by Pakistan and Zimbabwe (NG11/W/71), Switzerland (NG11/W/73), Japan (NG11/W/74) and Australia (NG11/W/75).

23 Uruguay Round - Trade Negotiations Committee - Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations - Part 2 - Revision, MTN.TNC/W/35/Rev.1; 3 December 1990.

24 On the negotiating history of Article 40, see *Resource Book, supra n*ote 11, 543-545; D Gervais, *The TRIPS Agreement: Drafting History and Analysis*, London, Sweet & Maxwell 1998 (1st ed.) at 191-192.

25 Gervais, *ibid*. at 191-192.

26 E Gellhorn et al. *Antitrust Law and Economics in a Nutshell* (fifth edition), West Publishing, St Paul, MN at 502–503. It cites C R Bard, Inc. v M3 Systems, Inc. (Fed, Cir.1998).

27 The enforcement of a patent procured by fraud on the Patent Office may violate Section 2 of the Sherman Act, provided all other elements to establish a Section 2 monopolisation charge are proven. *Walker Process Equipment, Inc. v Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965). According to Hovenkamp, ‘the realm of exclusionary practices regarding patent claims is broader than inequitable conduct, however, and covers any assertion of an IP right to exclude others while knowing that the IP right in question is unenforceable under the circumstances’ such as ‘(1) filing an infringement suit on a patent that the patentee knew or should have known was unenforceable as a result of inequitable conduct or other imperfections in the application process; (2) filing of an infringement suit when the infringement plaintiff knew or should have known that the rival’s technology did not infringe; (3) filing an infringement suit based on an expired patent ‘. H Hovenkamp, T*he Walker Process Doctrine: Infringement Lawsuits as Antitrust Violations,* University of Iowa Legal Studies Research Paper, No. 08-36, September, 2008.

28 ITT/Promedia, Case T-111/96, para. 60. The European Commission in ITT/Promedia argued that litigations could be qualified as abuse only when they cannot reasonably be considered

to be an attempt to assert the rights of the undertakings and when they only serve to harass the opposing party and when they were conceived in the framework of a plan whose goal is to eliminate competition. The Court added, however, that those two criteria must be interpreted and applied restrictively in a manner which does not frustrate the general rule of access to the courts. Ibid, paras 30, 55–62. The term 'undertaking' essentially refers to businesses, but under the European Union competition law, means economic units which consist of a unitary organisation of personal, tangible and intangible elements pursuing a specific economic aim on a long term basis. It is different from the corporate law concept in that companies belonging to the same group form an economic unit and therefore an undertaking within the meaning of Article 101 TFEU if the companies concerned do not independently determine their own conduct on the market.

29 A proton pump inhibitor medicine which helps reduce the production of stomach acid.

30 *AstraZeneca v Commission*, Case C-457/10 P, 6 December 2012..

31 Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, MTN.TNC/W/FA.

32 Argentina and the US agreed that, to justify the granting of a compulsory license by the Argentine Patent Office (INPI), a prior decision must be handed down by Argentina's Competition Commission establishing the existence of 'abuse of a dominant position' for the practice in question. Notification of Mutually Agreed Solution WT/DS171/3, WT/DS196/4 (20 June 2002).

33 *Illinois Tool Works Inc et al v Independent Ink* [2006] US LEXIS 2024 (S. Ct., March 1, 2006); European Commission, *DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses* (December 2005); ECJ Case C-53/03, *Syfait and Others v GlaxoSmithKline AEVE*, Opinion of the Advocate General Francis Jacobs, [2005] ECRI-4609 [100].

34 In the US, where competition authorities tend to consider consumer welfare rather than (general) economic welfare, a product market that is affected by the arrangements is often analysed (i.e. direct sale of the innovation itself, as well as the market for the process and output of the act of innovating) as a relevant market. Thus, they emphasise those aspects of licensing arrangements that are likely to affect adversely 'the prices, quantities, qualities, or varieties of goods and services either currently or potentially available '. *US 1995 IP Guidelines, supra* note 3, para. 3.2.2.

35 The *US 1995 IP Guidelines* explain that: 'Technology markets consist of the intellectual property that is licensed (the "licensed technology") and its close substitutes – that is, the technologies or goods that are close enough substitutes significantly to constrain the exercise of market power with respect to the intellectual property that is licensed. When rights to intellectual property are marketed separately from the products in which they are used, the Agencies may rely on technology markets to analyze the competitive effects of a licensing arrangement '. *US 1995 IP Guidelines, ibid,* para. 2.2, internal footnotes omitted.

36 The US Court has, since the 1970s, referred to 'naked restraint' if the goal of a contract is a general restraint of competition, as opposed to 'ancillary restraint' which means that contractual restraints are limited both temporally and geographically. The DOJ highlighted the 'rule of reason' approach in the 1988 *Guidelines on the Antitrust Enforcement for International Operations* (US Department of Justice, Nov. 1988, reprinted in 4 Trade Reg. Rpt. (CCH 13,109. The 1988 Guidelines were superseded by the 1995 Guidelines on the Antitrust Enforcement

for International Operations April 5, 1995). The Antitrust Guidelines for the Licensing of Intellectual Property (US 1995 IP Guidelines, *supra* note 3) of April 1995 shares the same rule of reason approach, emphasised in the 1988 Guidelines for International Operation.

37 Article 101(1) TFEU provides that: 'The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which:

(a) directly or indirectly fix purchase or selling prices or any other trading conditions;

(b) limit or control production, markets, technical development, or investment;

(c) share markets or sources of supply;

(d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby

placing them at a competitive disadvantage; and(e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts '.

38 It is often difficult to determine whether or not certain acts can be 'recognisable as the exercise of rights' under these IP laws. Some interpreted this text to mean that most acts under intellectual property laws could be exempted from the AMA application. Others interpreted Article 21 to mean that the AMA could be applied to certain abuses of IPRs. In 1989, a group of experts commissioned by the JFTC established that Article 21 could be read to mean that the AMA can be applied to those acts which would go beyond the purposes of IPR protection. The JFTC adopted this interpretation in its 1999 IPR Guidelines which said, somewhat tautologically, that:'…even if an act on its face appears to be an exercise of rights under the Patent Act, etc., if the said act, after evaluating its purpose and particular circumstances and the extent of its impact on competition in a market, is considered to deviate from or to run counter to the purposes of the IPR system, it is possible that the Antimonopoly Act will also apply to such act, since it would no longer be deemed an "act recognizable as the exercise of rights" under the Patent Act, etc…'. This position has been maintained until today, as shown by the 2007 JFTC Guidelines concerning the Use of Intellectual Property under the AMA (on the 2007 Guidelines see *infra* note 165). 2007 Guidelines state that:'[…] if any such restriction is found to deviate from or run counter to the intent and objectives of the intellectual property systems, it is not recognizable as an exercise of rights. It then constitutes private monopolisation if it substantially restrains competition in a particular field of trade '. (2007 Guidelines Part 3(1)(i)).

39 OECD, *Peer Review of Russia's Competition Law and Policy* (2004).

40 In the US before the Leegin Supreme Court judgment (*Leegin Creative Leather Products, Inc. v PSKS, Inc.*, 551 U.S. 877 (2007), vertical resale price maintenance was also considered per se illegal.

41 *Ibid*. para. 5.6.

42 C Shapiro, 'Patent Licensing and R&D Rivalry', in *American Economic Review*, 1985, 75(2) 25-30.

43 N T Gallini, 'Deterrence by Market Sharing: A Strategic Incentive for Licensing', in *American Economic Review*, 1984.74(5), at 931-941.

44 Op.cit at 30.

45 For example, S Scotchmer (1991), ‘Standing on the shoulders of Giants: Cumulative Research and the Patent Law’, in *Journal of Economic Perspectives,* Vol.5, No.1, 29-41; J Green and S Scotchmer (1995),‘On the division of Profit in Sequential Innovation’, in RAND *Journal of Economics,* at 20-23.

46 On various US court judgments on grantback provisions and their analysis, see E E Bergsten, ‘Patents: Licensing: Legality of Grant-Back Clauses’, in *Michigan Law Review,* Vol. 55, No. 5 (March 1957) at 697–710.

47 323 US 386 (1945).

48 In the US, the Supreme Court developed the doctrine of patent misuse which denies relief to patentees who attempt to extend the patent beyond the scope of the lawful grant. The doctrine is an equitable rule and works to make an entire patent unenforceable.

49 329 US 637 (1947).

50 *Ibid*. at 646.

51 *Ibid*. at 646-647. In a more recent case, a District Court in *PNY Technologies, Inc. v SanDisk Corp.* (NO. C-11-04689 YGR, N.D. California, 2012 4.20) stated: ‘There is nothing inherently illegal or anticompetitive about a grant-back provision in a patent license. […] To show that a grantback provision is unlawful, PNY must allege facts that demonstrate a restraint on competition that violates the antitrust laws […] Indeed, though PNY alleges that the grantback provision lessens the incentive to innovate, PNY stops short of alleging that this licensing provision actually has stifled innovation. […] To state a Section 2 Sherman Act claim based upon the grantback provision, PNY will need to do more than allege the ultimate conclusion of anticompetitive behavior; it will need to allege facts, which if proven, would establish anticompetitive conduct ‘. In this case, PNY alleged that the grantback provision in SanDisk’s license was part of SanDisk’s unlawful scheme to maintain its market power and suppress competition.

52 H Hovenkamp, M D Janis, M A Lemley, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law,* Aspen Law & Business, 2002, at 25-5-25-6.

53 R Gilbert and C Shapiro, *Antitrust Issues in the Licensing of Intellectual Property: The Nine No-No’s Meet the Nineties,* Brookings Papers, 1997, at 323–324.

54 *Ibid*. at 325–327.

55 Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements , OJ L 123, 27 April 2004. The April 2004 TTBER is accompanied by Commission Notice: Guidelines on the application of Article 81(3) of the Treaty on the application of Article 81 of the Treaty to technology transfer agreements (TTBE Guidelines) [2004] OJ C 101/02. For more details on exclusive grantbacks, see 2004 TTBE Guidelines, para.110. The Block exemption regulation expires on 27 April 2014 and the European Commission published a new regulation (http://ec.europa.eu/competition/consultations/2013_technology_transfer/regulation_en.pdf) with new Guidelines (http://ec.europa.eu/competition/consultations/2013_technology_transfer/guidelines_en.pdf) and launched a public consultation regarding the revision of rules on technology transfer agreements in February 2013. The new regulation will be effective from 1 May 2014 and expires in 2026. Until 30 April 2015, there will be a one year transition period during which

Article 101(1) will not apply to agreements already in place on 30 April 2014 which satisfy the conditions under the 2004 TTBE but not the new one.

56 K Laursen, *Cooperation or Competition: Grant-back Clauses in Technology Licensing Contract,* Paper presented at the DRUID Academy, Copenhagen, June 2012.

57 P Régibeau and K Rockett, *Assessment of potential anticompetitive conduct in the field of intellectual property rights and assessment of the interplay between competition policy and IPR protection,* November 2011, COMP/2010/16.

58 2014 TTBE Guidelines C(2013) 921 , see note 55.

59 See also P Régibeau and K Rocket, *supra* note 57.

60 US 1995 IP Guidelines, *supra* note 3, para. 5.3.

61 Gilbert and Shapiro, *supra* note 53 at 320–321.

62 395 US 100 (1969) 133.

63 Hovenkamp *et al. supra* note 52 at 23-33 – 23-39.

64 *Glen Manufacturing v Perfect Fit Industrie*s, 420 F2d 319 (2d Cir. 1970).

65 *Valmont Industries Inc. v Yuma Manufacturing Co.,* 296 F. Supp.1291 (D. Colo.1969).

66 Hovenkamp et al., *supra* note 52 at 23-35.

67 *Ibid*. at 23-35

68 *Supra* note 69.

69 371 US 39-50, 371 US 52.

70 Hovenkamp *et al. supra* note 52 at 23-3 – 23-26.

71 339 US 827 (1950).

72 395 US 653, 674 (1969).

73 US 1995 IP Guidelines, *supra* note 3, Chapter 6 at 32.

74 http://www.ftc.gov/reports/index.shtm

75 *Ibid*. at 90.

76 *Ibid*. at 90-91.

77 133 S. Ct. 2223, 106 U.S.P.Q.2d 1953 (2013).

78 2007 DOJ-FTC Report, *supra* note 74 at 88-91.

79 In the chapter on enforcement of invalid intellectual property rights, the IP Guidelines state that '[t]he Agencies may challenge the enforcement of invalid intellectual property rights as antitrust violations '.

80 Article 5.1(c) of the 2004 TTBER. In the EU, block exemption provides a presumption of legality to the agreements covered by it under Article 101(3) TFEU(former Article 81(3)EC). For a long time, the European Commission had a formalistic approach to IP licensing, based on the notification following the Commission Regulation on Block Exemption pursuant to Article

81(3) EC. Today, exclusive licensing is legal under the EU competition law, unless its economic and legal circumstances are considered to restrict competition in the sense ofthis provision. This analysis depends on the characteristics of the industry and the markets in question. The Commission has drawn up certain regulations and guidelines concerning licensing as it did, for example, in the TTBER. The TTBER block exempts certain patent and know-how licenses for the purposes of manufacture, use and commercialisation (Articles 1 and 10 of the 2004 TTBER). The main competition problem concerns 'hardcore restrictions' such as price-fixing or output-reducing cartels and market sharing (allocation of markets or customers) through licensing agreements, as emphasised in 2004 TTBER Article 4. The rest of possible competition problems, if there are any, are evaluated by 'rule of reason' analysis. Article 5, entitled 'excluded restrictions', enumerates such restrictions as (a) exclusive grantback clauses concerning severable improvement technologies, (b) assignback clauses concerning severable improvement technologies and (c) no-challenge covenants concerning the validity of one or more of the licensed IPRs. Regarding the restrictions under Article 5, no negative or positive presumptions are made and pro-competitive and anti-competitive effects of the clauses are evaluated case-by-case.

81 M A Lemley and C Shapiro, 'Probabilistic Patents', in *Journal of Economic Perspectives,* Vol. 19, 2005 at 75.

82 *Windsurfing International Inc. v Commission,* Case 193/83, 25 February 1986, paras. 89-94.

83 *Bayer AG and Maschinenfabrik Hennecke GmbH v Heinz Süllhöfer,* Case 65/86, 1988.9.27.

84 2004 *TTBE Guidelines, supra* note 55, para.112.

85 *Ibid.* para 204.

86 *Op.cit.* para. 208.

87 *TTBE Guidelines, supra* note 55, para. 209.

88 Tripartite Agreement by the United States, the United Kingdom and Soviet Russia concerning Conquered Countries, 2 August 1945.

89 Japan accepted the terms of the Potsdam Declaration in August 1945.

90 JFTC, *Twenty Years of Japan's Antimonopoly Act* (in Japanese),1967 at 42.

91 Y Nakamura (ed.) *Technological Transfer Contracts: Explanation of the Criteria for Recognition and International Division* (in Japanese), JFTC, Shoji Homu Kenkyukai (Institute of International Business Law) at 8-17.

92 Article 3, second part, of the AMA refers to unreasonable restraint of trade which could be applied to both horizontal and vertical restraints. Article 2(6) defines 'unreasonable restraint of trade' as 'mutually restricting or conducting their business activities in such a manner as to fix, maintain, or increase prices, or to limit production, technology, products, facilities, or customers or suppliers, thereby causing, contrary to the public interest, a substantial restraint of competition in any particular field of trade'.

93 Article 3, first part, of the AMA concerns private monopolisation. Article 2(5) defines the term as 'business activities, by which any entrepreneur, individually or by combination or conspiracy with other entrepreneurs, or in any other manner, excludes or controls the business activities of other entrepreneurs, thereby causing, contrary to the public interest, a substantial restraint of competition in any particular field of trade'.

94 According to Article 2 of the AMA , 'private monopolisation' means that a single firm or a combination of firms excludes or controls the business activities of other firms, thereby substantially restraining competition in the relevant market; 'unreasonable restraints of trade' result from agreements among competitors – for instance, to raise price or reduce output – that substantially restrain competition. AMA Article 15 prohibits mergers 'where the effect of a merger may be substantially to restrain competition in any particular field of trade'.

95 15 USC §45 (2005) affirms that 'unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful'. 'Unfair or deceptive acts or practices in interstate commerce' were added by amendments in 1938. The Federal Trade Commission relies upon both Section 5 of the FTC Act and a number of other antitrust statutes. Practices that constitute unfair methods of competition are considered to include at least those that violate the Sherman Act and the Clayton Act. However, some members of the FTC have considered the scope of application of Section 5 of the FTC Act to be too broad in recent cases.

96 The 2007 JFTC IP Guidelines (see *infra* note 165) explain that 'substantially restricting competition' (SRC) is defined as a situation where a specific entrepreneur or trade association can or will be able to control the market by freely determining the price, quality, quantity or other conditions, as a result of which competition in the market is reduced (Tokyo High Court Judgments concerning the Toho-Subaru case, 19 September 1951; and the Toho-Shintoho case on December 7, 1953; NTT-East Exclusionary Private Monopolisation: request for annulment of the JFTC hearing decision, Supreme Court Judgment, 17 December 2010). In the past, the JFTC thought that investment adjustment cartels did not amount to SRC, because their effects on prices or volume of production were remote or indirect.

97 For the JASRAC case, see Section 3.4 and Annex IV of this paper.

98 A Uesugi, *IPRs and Competition Policy,* GRIPS International Symposium on IPRs and Competition, Tokyo, Japan, 22 February 2011.

99 The AMA amendments of 2009 divided 'unfair trade practices' into two categories. The first of these, covered in subparagraphs (i)–(v) of Article 2(9) AMA, were established by the AMA itself, while the other category of such practices was designated by the JFTC. The AMA determined what constituted unfair trade practices, under certain conditions: (i) collective refusal to deal; (ii) supplying conditions which discriminate among regions or parties, thus causing difficulties to business activities of other entrepreneurs; (iii) supplying goods or services excessively below cost; (iv) supply conditions with restrictive terms without justifiable grounds; and (v) certain specified acts using one's dominant bargaining position.

100 The case was formerly listed as General Designation item 13 concerning 'dealings with restrictive terms' (today it is listed as General Designation item 12).

101 In the 2009 amendments, the AMA introduced a surcharge system for the first five categories of practices listed under Article 2(9). Other 'unfair trade practices', designated by the JFTC, are not subject to surcharge. The AMA was amended by Law No. 51 of 2009 which was promulgated on 10 June 2009 and entered into force on 1 January 2010. Other 2009 amendments included the introduction of a surcharge system for exclusionary private monopolisation; introduction of a system that increases the surcharge rate applicable to entrepreneurs playing leading roles in unreasonable restraint of trade; introduction of a system that allows two or more violators within the same company group to jointly file an application for leniency; increase in the maximum imprisonment term for crimes such as unreasonable restraint of trade; and review of the notification system for business combination.

102 No change was brought to the procedures relating to Article 6, but, as Article 4 was abolished, prohibition of establishing contracts that would lead to unreasonable restraint of trade became a stand-alone prohibition. Thus, contracts with foreign companies could be scrutinised under Article 3 or Article 6.

103 Abolished in 1980.

104 JFTC, *Twenty Years of Japan's Antimonopoly Act, supra* note 90 at 257-258.

105 Nakamura , *supra* note 91 at 5.

106 *Ibid.* at 20.

107 Kawai, *Kokusaiteki keiyaku to dokusenkinnshihou* (International Contracts and Antimonopoly Law), Kokusai Shoujihou Kenkyujo (International Commercial Affairs Institute), 1978 at 5-6.

108 *Op. cit.* at 21.

109 Japan Fair Trade Commission, *Antimonopoly Act Guidelines for International Licensing Contracts (*24 May 1968). Detailed analysis of the 1968 Criteria for Approval is found in Kawai, supra note 107 at 34-293.

110 Nakamura, *supra* note 91 at 27–30.

111 JA Newberg, Technology licensing under Japanese antitrust law, *Law and Policy in International Business*, Summer 2001. http://findarticles.com/p/articles/mi_qa3791/is_200107/ai_n8959364/ at 9.

112 For example, the following passage from Wealth of Nations (A Smith, Wealth of Nations (1776) Book I, ch 8) was quoted: "[It is not, however, difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute, and force the other into a compliance with their terms. The masters, being fewer in number, can combine much more easily; and the law, besides, authorizes, or at least does not prohibit their combinations, while it prohibits those of the workmen. We have no acts of parliament against combining to lower the price of work; but many against combining to raise it. In all such disputes the masters can hold out much longer. A landlord, a farmer, a master manufacturer, a merchant, though they did not employ a single workman, could generally live a year or two upon the stocks which they have already acquired.] Many workmen could not subsist a week, few could subsist a month, and scarce any a year without employment. In the long run the workman may be as necessary to his master as his master is to him; but the necessity is not so immediate." Kawai, *supra* note 107 at 5-6.

113 *Ibid.* at 5-6. Among developed countries, according to this author, licensing ensured complementarity of technologies among creators and users of technology who negotiated such technology transactions on equal footing.

114 J A Newberg and W K Tom, 'U.S. Enforcement Approaches to the Antitrust Intellectual Property Interface,' in N Gallini and R Anderson (ed.) *Competition Policy, Intellectual Property Rights, and International Economic Integration,* Ottawa: Industry Canada, 1997.

115 Bruce B. Wilson, Deputy Assistant Attorney General, Antitrust Division, Address before Michigan State Bar Antitrust Section and the Patent, Trademark and Copyright Section (21 September 1972), 4 Trade Reg. Rep.(CCH) 13,125.

116 Interview on 20 March 2011 with A Uesugi, former Director-General of the JFTC who was Director of International Relations from 1988-1991.

117 1968 Criteria for Approval, 1(7) as explained in H Iyori and A Uesugi, *The antimonopoly laws and policies of Japan,* New York: Federal Legal Publications, 1994 at 310.

118 Kawai, supra note 91 at 124.

119 A Rokuhara, *Research and Development and Anti-Monopoly Policy: Joint Research and Development, Technology Transactions and Discovery of New Fields,* Economic Research Division, JFTC, 1985 at 129–135.

120 Gilbert and Shapiro, *supra* note 53 at 285–287.

121 (i) Concerning the Novo Industry (a Danish pharmaceutical company) and Amano distributorship (licensing) agreement concluded in 1966, the JFTC ordered Amano on 12 January 1970 to abandon certain provisions in this contract, and notably the clause prohibiting Amano to manufacture, sell and handle the products covered by the agreement even after the termination of the contract as infringing Article 19 of the AMA. Amano very willingly consented. Novo Industry sought nullification of the JFTC order with the Tokyo High Court. The judgment of this Court was mainly concerned with the question of whether Novo had standing to seek nullification of the JFTC order which was addressed to Amano and decided against it; (ii) In 1979, the JFTC initiated hearing proceedings on the Bucyrus and Komatsu case involving the joint venture contract with restrictive terms between Bucyrus-Erie Co. and Komatsu. The parties subsequently cancelled the joint venture and withdrew the case.

122 *Yakult Honsha* Co. Ltd. (JFTC Recommendation Decision, 13 September 1965). This JFTC case concerned the licensing contracts of the process patents to produce *Yakult* (a dairy product made by fermenting skim milk with a *Shirota* strain bacterium) and the sale of fermented milk with the trademark Yakult. In this case, price, quantity, and territorial restrictions, as well as the prohibition of the sale of competing products were involved in the IP licensing.

123 Interview on 4 March 2010 with H Iyori, former Director-General, Economic Affairs Department, JFTC, between 1976-1979.

124 Interview with H Iyori, *supra* note 123.

125 Rokuhara, *supra* note 119 at 73.

126 Iyori and Uesugi, *supra* note 117 at 306.

127 *Ibid*. at 306-307.

128 In 1995, there were 803 notifications of international contracts, 209 of which were transfer of technology agreements. Among these, 171 were with Chinese companies. The cases where JFTC administrative guidance was given concerned grantbacks (49) and non-compete clauses (27); there were no cases of no-challenge or non-assertion clauses. http://www.jftc.go.jp/info/nenpou/h06/02100000.html.

129 A non-profit organisation established in February 1971 under the aegis of the Ministry of Education and Science.

130 *Ibid*. at 16.

131 *Op.cit*. at 16.

132 The processes of production were patented in 1956 and industrially used since the 1960s. Rokuhara, *supra* note 118 at 16-18. It seems that important technological inventions in Japan took place before 1935. For ten major Japanese inventions prior to 1935, see http://www.jpo.go.jp/seido/rekishi/judai.htm (in Japanese)

133 Created in 1937 by the Ministry of International Trade and Industry (MITI today METI) and became independent administrative organisation in 2001. The AIST covers life science and biotechnology, information technology, nanotechnology, materials and manufacturing, the environment and energy, geological survey and applied geoscience, metrology and measurement science.

134 Rokuhara, *supra* note 119 at 18.

135 *Ibid.* at 18.

136 Iyori and Uesugi, *supra* note 117 at 310.

137 By the Bank of Japan and the Ministry of Public Management.

138 Ministry of Public Management, *Scientific and Technological R&D,* 1982.

139 Japan's technology exports to the US were limited to 22.1 percent of the total, 21.1 percent to Europe, 41.4 percent to Southeast and West Asia, 9.7 percent to Africa and Oceania, and 5.8 percent to South America. Rokuhara, *supra* note 118 at 20–24.

140 M. Bronfenbrenner, 'Thirteen Reasons for the US to Rush to Protectionism' *The Economist* (Tokyo, Mainichi Daily, in Japanese) 18 October 1977 at 16-22.

141 K Kawai, supra note 107 at 11-12.

142 JFTC, *Antimonopoly Legislation of Japan*, June 1998 at 344-359.

143 Introduction, para. 3.

144 *Ibid.*

145 Iyori and Uesugi, *supra* note 117 at 303.

146 Iyori and Uesugi *supra* note 117 at 310.

147 Interview with Uesugi, *supra* note 116.

148 72/237/EEC, 9 June 1972, L143/13p [1972]. See V Korah, *Intellectual Property Rights and the EC Competition Rules,* 2006, Hart Publishing, Oxford, UK at 38-41.

149 Korah is of the view that a no-challenge clause qualifies under Article 81(3) on the grounds that it would have been risky to grant a licence without such a provision, and cites an example of a smaller inventor who cannot afford to licence a large, aggressive firm without such conditions. *Ibid.* at 70.

150 *Supra* note 82.

151 *Supra* note 83.

152 2004 TTBER Article 5(1)(c), TTBE 112 and 113. However, the EU is currently reflecting on stricter treatment of certain termination clauses (see Section 1.4 of this paper).

153 2014 TTBE Guidelines, supra note 55, para.227 http://ec.europa.eu/competition/consultations/2013_technology_transfer/index_en.html

154 *Supra* note 30.

155 European Commission, Press release, 19 June 2013. Non-confidential version of the Decision not yet published.

156 For example, 'superior bargaining position' is the situation 'where the licensee is obliged to accept the licensor's requests even if they are excessively disadvantageous to the licensee, because the licensor's denial or suspension of technology transactions would present major obstacles to the licensee's business. In making this judgment, various factors will be taken into consideration, such as the degree of dependence on the patent, etc. by the licensee, the positions held by the licensor and licensee in the product or technology market, the possibility that the licensee could change licensors, circumstances in the said product or technology market and the disparity between the licensor and licensee in their scale of business, etc.'. 1999 Guidelines at 19.

157 For example, the Guidelines stated that if a single firm accumulates a 'concentration of patents,' without licenses to which other firms can neither continue in the market, nor enter the market, the refusal to grant such licenses constitutes monopolisation in violation of Article 3 of the AMA.

158 The concept of 'relevant market' is used elusively as in the following. 'The extent to which a certain restriction impedes fair competition will be determined on a case-by-case basis in light of its effect on competition in the relevant market. The effect on competition in a relevant market depends on the content of the restriction, as well as such factors as the position of the licensor and licensee in the relevant product and technology market, the overall market conditions, and the duration of the restriction'. 1999 Guidelines at 4.

159 1999 Guidelines at 28.

160 Exclusive grantbacks are considered 'highly likely' to constitute unfair trade practices, unless the original licensee agrees to assign or exclusively license the improvement in return for an 'appropriate price'. Ibid. at 26.

161 For example, Newberg *supra* note 111 at 756.

162 1999 Guidelines 4, 3 (5) (b) (a).

163 Newberg points out that such licensing is called simply 'exclusive' in the US. 1995 US IP Guidelines, 5.6. Newberg, *supra* note 111 at 12.

164 The Structural Impediments Initiative (1989–1993) aimed at dealing with Japan's domestic structural problems limiting trade. After several rounds of discussions, agreements were reached in April and July 1990 with a view to introducing changes such as retailing practices, land use, and investment in public works.

165 Published on 28 September 2007 and amended on 1 January 2011 (unofficial English translation at http://www.japaneselawtranslation.go.jp/common/data/notice/h19g00100je.3.0.htm). The 2007 Guidelines are divided into four main parts: Introduction (Part 1); Basic Principles (Part 2); Viewpoints from Private Monopolisation and Unreasonable Restraint of Trade (Part 3); and Viewpoints from Unfair Trade Practices (Part 4). As in the 1999 Guidelines, the 2007 IP Guidelines state that restrictive terms in licensing are analysed both by the criteria of unfair trade practices (Article 19) and other, more competition-oriented angles, i.e. monopolisation

and anti-competitive agreements among competitors (Article 3, first and second parts). The 2007 Guidelines expanded the scope of IPRs covered by the previous Guidelines to other IPRs protected under the Utility Model Law, the Law Concerning Semi-Conductor Circuits, the Seeds and Plants Law, the Copyright Law and the Design Patent Law. Under the Copyright Law, however, the Guidelines cover only computer programmes (software) and, overall, the focus of the Japanese IP Guidelines continued to be on technologies with an added discussion of how evolving technologies relate to existing standards or specifications.

166 According to Part 4, 1(3)(b) of the 2007 Guidelines where the method of analysis from 'unfair trade practices' is explained, '[w]hether or not the licensor has a dominant bargaining position over licensees is examined through a comprehensive consideration of the degree of influence of the technology'. The Guidelines say this position is recognised 'by the extent to which the licensees' business activities depend on the technology, the positions of the parties in the technology or product market, the state of the technology or product market and the disparity in the scale of business activities between the parties'.

167 Ministry of Science and Education, *Indicators of Science and Technology in Japan*, 1985 at 730–733.

168 GRIPS database: World Development Indicators. See also H Yamane, *Interpreting TRIPS, supra* note 6 at 399-402.

169 On the role of the Japanese patent protection in encouraging incremental innovation, see *Interpreting TRIPS*, supra note 6, at 24, 348-349, 423.

170 Interview with Iyori, *supra* note 123.

171 *Ibid*.

172 Interview with A Uesugi, supra note 116.

173 Interview with Iyori, *supra* note 123.

174 Iyori and Uesugi, *supra* note 117 at 310.

175 J Davidow, 'Liberalization of Antitrust Rules for IP Licensing: Global Trends and Unresolved Issues, *The Journal of World Intellectual Property,* volume 7 July 2004 Number 4 at 492.

176 See, for example, the case of Novo at the Tokyo High Court, *supra* note 121.

177 Interview with Uesugi, *supra* note 117.

178 In 1998, MS started licensing its new OS, Windows 98, which contained an AV application, called Windows Media Player. Since that time, MS has gradually expanded the AV functions of its OS (i.e. Windows Media Technologies including Windows Media Video, Windows Media Audio, Windows Media DRM, etc.). Some OEMs holding patents related to AV technologies argued that the MS NAP clauses should be deleted from their license agreements.

179 Hearing Decision against Microsoft Corporation, 18 September 2008. https://www.jftc.go.jp/en/pressreleases/yearly-2008/sep/individual_000082.files/2008-Sep-18.pdf

180 The 2007 Guidelines state: 'when a licensor imposes on licensees an obligation to refrain from exercising, in whole or in part, the rights owned or to be acquired by them against the licensor or any entrepreneurs designated by the licensor obligation could result in enhancing the influential position of the licensor in a product or technology market or could impede the licensee's incentive to engage in research and development, thereby impeding the

development of new technologies by restricting the exercise of the licensee's rights, etc.), constitute an unfair trade practice 'if it tends to impede fair competition (Item13)'.

181 2007 IP Guidelines, Part 2(4)(ii).

182 http://jftc.go.jp/e-page/legislation/ama/patentpool.pdf. The draft was published for public comments on 19 May 2005.

183 In the US as well as in the EU, this rule is applied by the competition authorities. However, in the *US, the CAFC in US Philips v ITC and Princo* (Sept. 2005) stated that the foreclosure effect of the pool containing non-essential patents must be proven.

184 The Patent Pool Guidelines, Part 3, 3(1).

185 *Ibid*. Part 2,3.

186 2007 Guidelines, Part 3,1(1)(i).

187 Davidow, *supra* note 174 at 494-495.

188 The 2007 IP Guidelines use the English term 'dominant' position, instead of 'superior' position used hitherto in previous Guidelines.

189 The Guidelines for Exclusionary Private Monopolisation under the Antimonopoly Act, 28 October 2009, Part II,1(1).

190 This despite of references to court cases in which market power analyses were undertaken, notably the NTT-East case. See *supra* note 96.

191 Newberg, *supra* note 111 at 743.

192 US 1995 IP Guidelines, *supra* note 3, para.2.3.

193 R Gilbert and C Shapiro, *supra* note 53 at 288.

194 Hovenkamp et al., *supra* note 52 at 20-2.

195 The US 1995 IP Guidelines emphasise the importance of the rule of reason approach, i.e. if the restraints in licensing terms are found to contribute to economic efficiency, and when they are not naked restraints, collective price or output restraints, they are not likely to be illegal. The DOJ had already highlighted this approach in its 1988 Antitrust Enforcement Guidelines for International Operations (US Department of Justice, Nov. 1988, reprinted in 4 Trade Reg. Rpt. (CCH) 13,109).

196 Hovenkamp et al, *supra* note 52 at 20-4-5.

197 *Nungesser KG and Kurt Eisele v Commission,* Case 258/78, 8 June 1982.

198 Korah, *supra* note 148 at 30-31 and 54-55.

199 US 1995 IP Guidelines, *supra* note 3, 3.3.

200 OJ 1989, L61/1.

201 US Code Title 15-1.

202 '…contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among States, or with foreign nations'.

203 *Motion Picture Patents v Universal Film Manufacturing* (243 US 502 (1917)).

204 In *Mercoid Corp. v Mid-Continent Investment Co.,* 320 US 661 (1944), the Supreme Court extended the doctrine of patent misuse to antitrust law in holding that a contributory infringer could not be sued by a patentee who refused to license a combination invention without the purchase of key unpatented components. In 1953, Congress added Sections 271(c) and (d) to the Patent Code 'for the express purpose of reinstating the doctrine of contributory infringement as it had been developed by decisions prior to *Mercoid*'. E Gellhorn et al, *supra* note 26 at 491-492.

205 E Gellhorn et al, *supra* note 26 at 491-494.

206 271 (d) (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

207 Hovenkamp et al, *supra* note 52 at 21-19-24.

208 *Jefferson Parish Hosp. Dist. No.2 v Hyde,* 466 US 2, 41-42 (1984).

209 186 U. S. 70 (1902).

210 272 US 476 (1926).

211 *Ibid.* at 272.

212 For example, *United States v Masonite Corp.* 316 US 265 (1942).

213 E Gellhorn et al, *supra* note 26 at 489.

214 333 US 287 (1948).

215 Gellhorn et al, *supra* note 26 at 488-489. According to the Supreme Court in *General Talking Pictures Corp. v Western Electric Co.,* 304 US 175 (1938):'…Although the patent laws contemplate and authorize but one patent monopoly for one invention, many separate patents authorizing single patent monopolies are merged in this "patent pool." Thus, all these separate patent monopolies are combined, and in many respects are made to function as one. The record shows that, from this larger combination, completely outside the conception in the patent statutes of single and separate monopolies, allotments of submonopolies are made in the respective "fields," from which emanate in turn other submonopolies…A power so far reaching – apart from contract – has not been expressly granted in any statute, and should not be read into beyond the degree allowed a patentee by GE'.

216 *United States v Grinnell Corporation,* 384 US 563, 570-571 (1966).

217 *Spectrum Sports Inc. v McQuillan*, 506 US 447, 459 (1993).

218 *United States v Microsoft Corporation,* D C Cir. 2001.

219 Commission Decision 89/205/EEC of 21 December 1988 relating to a proceeding under Article 86 of the EEC Treaty (IV/31.851 Magill TV Guide/ITP, BBC and RTE) (OJ 1989 L 78, p. 43) and Commission Decision 2007/53/EC of 24 March 2004 relating to a proceeding pursuant to Article 82 [EC] and Article 54 of the EEA Agreement against Microsoft Corp (Case COMP/C-3/37.792 – Microsoft) (OJ 2007 L 32, p. 23). In the latter case, in addition to the parameters of 'exceptional circumstances', circumstances particular to the case, such as the network effects, the

company's exceptional market share and duration of dominance, the non-existence of the risks that ordering interoperability could lead to mere copying of the whole product and the lock-in effects of users, seem to have contributed to the analysis.

220 In *Magill*, these 'exceptional circumstances' were identified as the following: the refusal to license prevents the introduction of a new product; the refusal to license is not objectively justified; the refusal to license excludes a rival from a 'secondary market' (RTE and ITP ('Magill'), Joined Cases C-241/91P, C-242/91 P [1995] ECR I-743). In this case, the refusal to provide basic information by relying on national copyright provisions was considered to be preventing the appearance of a new product, a comprehensive weekly guide to television programmes, for which there was a potential consumer demand and constituted Article 102(b) TFEU. In *IMS Health* (Case C-418/01, [2004] ECR I-5039), the concept of 'duplication' as opposed to 'new product', became the centre of discussion. The Court of Justice appears to eliminate *Magill's* secondary market requirement. In Microsoft, the General Court held that, in order for the refusal by an undertaking that owns a copyright to give access to a product or service indispensable for carrying on a particular business to be treated as abusive, it was sufficient that three cumulative conditions be satisfied, namely, that (1) refusal prevents the emergence of a new product for which there is a potential consumer demand, (2) it is unjustified, and (3) it is such as to exclude any competition on a secondary market (Microsoft, Case T-201/04, [2007] ECR II- 1491, para. 330).

221 See, for example, *Image Technical Services v Kodak,* 125 F 3d 1195.

222 TTBER, *supra* note 55, Preamble and para. 5.

223 IP Enforcement Guidelines, Competition Bureau, 2000 at 6.

224 Article 4(1)(c)(iii) of the 2004 TTBER, *supra* note 79.

225 'Active sales' means actively approaching individual customers inside another distributor's exclusive territory or exclusive customer group by mail, e-mail, visits, or specifically targeted advertising, and passive sales mean responding to unsolicited requests from individual customers who are located inside another distributor's exclusive territory or exclusive customer group.

226 Article 4(1)(c)(iv) of the 2004 TTBER. As regards protection from other licensees, and only in a non-reciprocal agreement, the parties may prohibit active sales by the licensee into the exclusive territory or to the exclusive customer group allocated by the licensor to another licensee (provided the latter was not a competing undertaking of the licensor at the time of the conclusion of its own licence (Article 4(1)(c)(v) of the 2004 TTBER. Among non-competitors, active sales restrictions and passive sales restrictions on the licensor, as well as active sales restrictions imposed on the licensee, are block exempted (Article 4(2)(b) of the 2004 TTBER).

227 On the concept of 'undertaking', see *supra* note 28.

228 On the concept of competitors and non-competitors, see Article 1(1)(j) of the 2004 TTBER and paras. 26–33 of the 2004 TTBE Guidelines, *supra* note 55.

229 Article 3, 2004 TTBER, *supra* note 55.

230 US 1995 IP Guidelines, *supra* note 3, 4.2.

231 Based on this doctrine, the Supreme Court accorded exemptions, for example, in *City of Columbia v Omni Outdoor Advertising Inc.*, 499 U.S. 365 (1991).

232 http://www.ftc.gov/os/adjpro/d9305/

233 Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to Emissions from Air-conditioning Systems in Motor Vehicles and amending Council Directive 70/156/EEC.

234 European Commission Press Release, Brussels, 16 December, 2011.