World Intellectual Property Organization
Roundtable on Intellectual Property and Competition Law
For Certain Asian and Pacific Member States
September 14-16, 2011 - Singapore

The Interoperation of Intellectual Property and Competition Law Rules and Principles

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Technological Change

- Technological change refers to improvements in the way we do things including not only the development of new products (such as a new drug) but also finding better ways of producing existing products through more efficient production processes (technical and management)
- Technological change covers the overall process of:
  - The discovery of an idea (invention)
  - Commercialization (innovation)
  - Diffusion – i.e. the use of new products, processes and services
- Competition law can intervene to correct anti-competitive conduct at any of these three stages – and so competition law might ultimately affect innovation

Intellectual Property Law

- Intellectual property rights (IPRs) establish a property right over an idea (patent), expression (copyright), product quality (trademark), design, plant variety etc.
- IPRs provide a *negative right* ie the right to exclude others from using the idea, expression etc for a limited time – no obligation to use it or licence it (?)

Economic Justification for IPRs

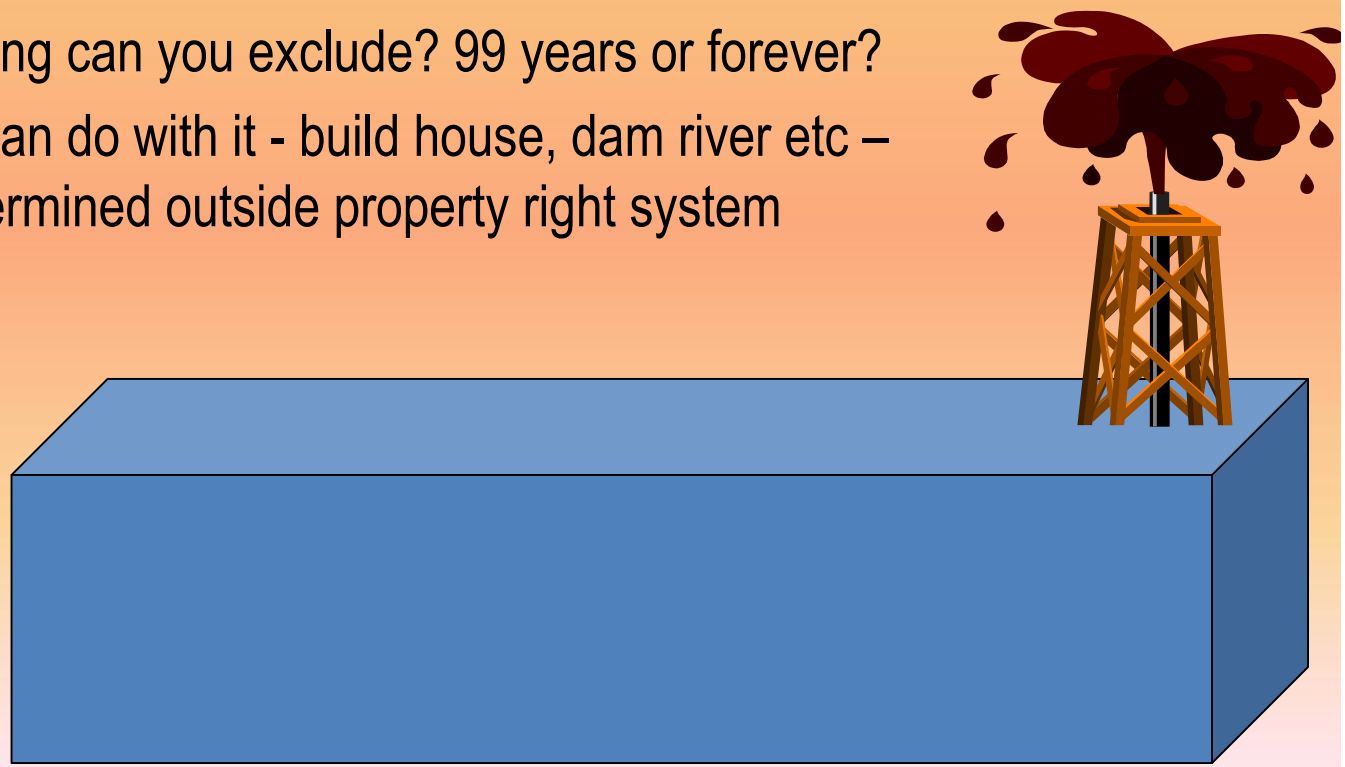
- Economists argue IPRs help to promote BOTH long-term efficiency (dynamic efficiency) and short-term efficiency (static efficiency) by:
  - by stopping others from benefiting from the IPR this allows creators to keep (appropriate) the rewards from their ideas, expression etc. This promotes long-term *dynamic efficiency*
  - provides a legal mechanism for the efficient exploitation and dissemination of new ideas etc through licensing (which promotes short-term *allocative efficiency)*

Basic Economics of IP Law

- IPRs protect information which has public good characteristics ie information is:
  - non-rivalrous (one person's use does not reduce another's use)
  - non-excludable (it may not be possible to prevent others from using the information)
- If information can be easily copied then people will free-ride on the intellectual activities of others - the ability to free-ride means that the incentives to create the information and to share it for profit are reduced. IPRs allow inventors etc to appropriate the economic rewards by stopping copying
- Stopping people from using IPRs promotes its creation (a benefit to society) by limiting its use (a cost to society) – but what to do when creation is in one country and it is used in another?

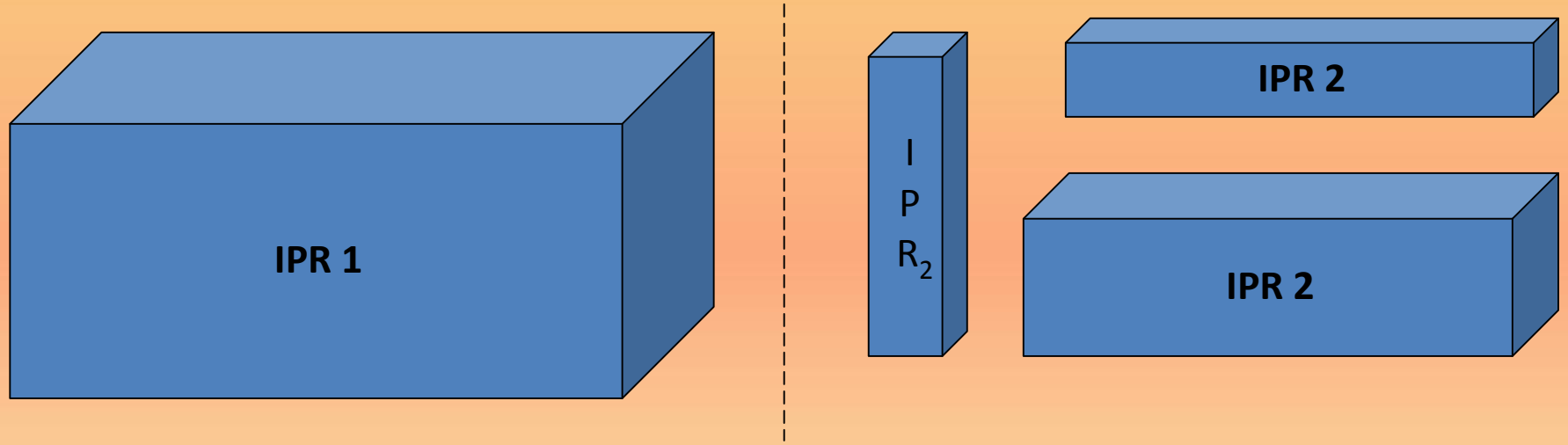
Real Property Rights

- Property right - really a bundle of rights to stop others from entering (negative right) and to allow owner to use the property (positive right)
- Definition of real property rights - three main elements
  - Scope: length, breadth, height (above and below ground)
  - Time: for how long can you exclude? 99 years or forever?
  - Use: what you can do with it - build house, dam river etc – use usually determined outside property right system



IPRs– the Same as Real Property Rights?

- Three main elements (like real property rights)
  - Scope - breadth and depth
    - IPR 1 - broad scope - held by one patentee
    - IPR 2 - narrow scope - adjacent products have separate patents, as do subsequent improvements



  - Time: for how long can you exclude? Patents 20 years etc
  - Use: what you can do with it - (e.g. keep on shelf and refuse to let anyone use it ie refuse to licence etc)

But Real Property Rights and IPRs are NOT Quite the Same

- Boundaries of real property rights easy to define – difficult to define for IPRs – boundaries are blurred and may need later court decisions to define precisely.
- Some IPRs can be defined more precisely than others – for example, the scope of a patent is more difficult to define than copyright.
- Holders of IPRs can 'game' the IP system to maximise the scope of the grant (unlike a real property right where easy to measure the dimensions)
- The scope of an IPR can affect the development of both complementary IPRs and follow-on IPRs
- But the use to which real property and IPR rights are similar ie you can sell, licence, lease, divide etc both.

Patents

- Not a monopoly grant (single seller in a market) unless the relevant market is the same as the patent grant
- In competition law *relevant market* for a product includes all the products that are substitutable to some degree (in the short-term) i.e. all other products that constrain the ability to charge for the IPR
- Patents rarely give the owner substantial market power
- Distinguish economic monopoly (over a product or service that allows the monopolist to sell at the price she chooses from a legal monopoly right that allows the owner to stop others from using the right (but may not be worth much)

Evidence on Importance of Real Property Rights and IPRs to Economic Development

- Economic evidence clear that secure real property rights essential to development eg North & Weingast (1989) show that at the time of the industrial revolution in Britain well-defined property rights, less arbitrary courts and police, institutions that limit confiscation of property reduced transaction costs that encouraged the growth of markets, more specialisation, economies of scale and more secure returns on investment.

Evidence on Importance of Real Property Rights and IPRs to Economic Development

- On the other hand, evidence of the importance of IPRs on economic growth is mixed – in some industries such as pharmaceuticals IPRs are important (but often to allow companies to recoup the costs of regulatory compliance than protect against the invention itself) –
- But as Bessen and Meurer (2008) point out "in many other industries, perhaps most, patents fail to perform like property and they may actually discourage innovation"
- So it is not clear that IPRs are as important to economic development as real property rights

Competition Law and Property Rights

- Competition law affects the use to which real property rights or IPRs can be put
- Should competition law treat IPRs the same as real property rights?
- Competition law mainly focuses on the short-term efficient allocation of resources – including real property – and is not generally concerned with the preservation of it or discovering new real property
- However restrictions on IPR use could impact on the creation of IPRs – for example if competition law restricts patent holders commercial strategies and so their profits there may be less incentive to invent and innovate

IPRs – Competition Law Intersection Some Basic Economic Issues

- Inconclusive empirical data on the incentive effects of IPRs on R&D do does placing competition law restrictions on IPR licensing affect R&D?
- If the scope of an IPR is too great then:
  - the *pioneer* innovator will stifle *follow-on* innovation – if so then the IP system may inhibit future innovation
  - The development of *complementary* IPRs may be stifled
- IP law places limits on right to exclude (eg others may use within limits eg fair use in copyright, parallel imports of genuine goods, particular provisions eg Copyright Tribunal in Singapore can consider license fees)
- Should competition law start with a presumption that IPRs are correctly granted? If it is believed that the IP grant is too wide should competition law prevent its use?

Competition Law

- In most countries competition law prohibits:
  - Anti-competitive agreements eg an agreement between competitors to use only one kind of technology
  - Abuse of a dominant position eg a dominant firm with market power resulting from an IPR tying an unrelated product
  - Anti-competitive mergers eg a merger between two firms with competing research laboratories
- Competition law authorities around the world (including Singapore) tend to follow the approach taken in the US – but US approach trades off *domestic* innovation in the US with *domestic* dissemination – other countries may have different trade-offs

US History of Interface Between Competition Law and Intellectual Property Law

- For most of 20th century US courts, competition regulators assumed IPRs conferred monopoly power eg
  - 1972 “Nine No-Nos” which the Department of Justice (DOJ) saw as *per se illegal*
- But then
  - 1991 – did away with “Nine No-Nos”
  - 1995 DOJ/FTC IP Guidelines said that they “will no presume that a patent, copyright or trade secret necessarily confers market power on the owner”

In 1988 Antitrust Division of DOJ Antitrust Enforcement Guidelines

- Accepted that IPRs do not necessarily confer a monopoly in relevant antitrust markets
- Adopted a rule of reason approach which balanced the pro-competitive and anti-competitive effects of licensing i.e. no practices presumptively (per se) bad
- Under a rule of reason ask
    - will prices rise and output fall?
    - will welfare-enhancing competition be stifled?
    - are there efficiencies that will offset any competitive detriment?

US - Licensing

- Licensing allows the efficient dissemination of new ideas and expressions.
- Ability to licence also may promote research and development. Without licensing. new ideas would have to be developed by their creators - who are unlikely to be in the best position to do so

- Teece (2000) gives three business objectives that can be achieved by licensing
  - efficient commercialization … matching technology with the complementary assets needed to succeed in market
  - technology exchange - cross-licensing can reduce infringement claims
  - market enhancement - licensing helps to establish new products or processes and new product standards

US - In 1980s Competition Regulators Reconsidered Licensing

- Now licensing was considered competitive because it increased:
  - the value of patents (others apart from inventors etc may be better at commercializing)
  - the diffusion of patents

US – Defining Markets for IPRs for Competition Law Purposes

- In order to determine whether a firm has market power or the practice lessens competition in a market the market must be defined

- Three markets potentially
    - markets for goods and services that incorporate the IP (e.g. computer operating systems market)
    - a technology (licensing) market (e.g. licensing code)
    - an innovation (research and development) market (e.g. programming code)

US Antitrust Modernization Commission 2007

- IPRs and competition laws "are generally complementary. Both are designed to promote innovation that benefits consumer welfare" (p iii)
- "In industries in which innovation, intellectual property and technological change are central features. Just as in other industries, antitrust enforcers should carefully consider market dynamics in assessing competitive effects and should ensure proper attention to economic and other characteristics of particular industries." (p 39)
- "In sum, antitrust law has sufficient grounding in economic learning and flexibility to provide appropriate analyses of competitive issues in new economy industries." (p 42)

But Competition Law Focuses on Price Competition – not Product Competition

- For example competition:
  - In determining the definition of a relevant market the test normally used is a price-substitution test (the SSNIP or hypothetical monopolist test)
  - A dominant firms market power is determined (mainly) by whether it can price independently of others
  - Whether a merger is likely to substantially lessen competition depends on an assessment of whether price is likely to be greater after the merger (ie the substantial lessening of competition test essentially asks whether price is significantly higher due to less competition)

US - Refusals to Licence

- DOJ and FTC submitted amicus brief in *Verizon (2002) which* said:

  "The Sherman Act prohibits exclusionary conduct that perpetuates and or threatens to create a monopoly; it does not prohibit failure to share monopoly power"

- DOJ and FTC treat IP no differently from other forms of property
- Thus monopolist can refuse to licence even if the monopolist controls an 'essential facility' so long as it:
  - acts on the basis of legitimate business reasons and
  - does not use it to extend market power into another market (e.g. tying)

US - Exclusive Dealing

- The licensor prevents the licensee from using another technology or process (or the reverse)
- Note: Distinguish exclusive dealing from an exclusive licence - the latter is not anti-competitive if it simply transfers rights from one part to another
- Exclusive dealing gives the licensee a
  - geographic area or
  - particular use (e.g. a 'field of use' clause limits the scope of the licence to particular applications)

US - Tying in IP Licenses

- Here the licensor uses the IPR (the tying product) to force the another unwanted product onto the licensee (the tied product)
- In U.S. if licensor has considerable market power then tying is per se illegal in the US (sometimes courts will assume market power from the IPR even though IPRs and markets are not necessarily the same)
- Tying can foreclose tied market to competitors in the tying market (other IP holders). Those wanting to enter tied market will have to enter tying market which is protected by IPRs
- Tying can facilitate price discrimination if the tied product can indicates 'willingness to pay' for the tying product - e.g. heavy users of photocopiers would pay more for a photocopier. Manufacturer does not know this before the sale. So the manufacturer sells 'own brand' paper which is tied to the photocopier - makes profit on paper not photocopier - those who value the photocopier more actually pay more - problem is that price discrimination can be good from an economic perspective

US – Licensing Price Restrictions

- US courts take a dim view of price restrictions
- For example, generally per se illegal where:
  - resale price maintenance in an IP licence
  - where two or more patent holders set price
  - where cross-licensees fix price
  - where restrictions apply beyond first sale
  - grantbacks (licensee agrees to grantback to the licensor any improvements made to the IPR - can violate antitrust laws if used to facilitate price-fixing or horizontal division of markets (e.g. by putting the decisions on these issues to the licensor - who may be a dominant firm)

European Union - Art 101 and IPRs

- Art 101 prohibits agreements that intend or have the effect of preventing, restricting or distorting competition between Member States - and includes specified practices such as price-fixing, applying dissimilar conditions to similar transactions etc
- Territorial restrictions (vertical restrictions that limit the area that a wholesaler or retailer can sell in) are not listed in Art 101, in *Consten Grundig,* The Court found that IP transactions are subject to competition law, whether the practice is listed in Art 101 or not.
  - in Consten Grundig v. Commission in 1966 the Court held that an agreement between Grundig (a German manufacturer) and a French distributor, Consten, in which Consten obtained French rights to GINT trademarked products was illegal because it continued national trade divisions (another French competitor has imported GINT products and sold them in France - Consten had tried to use IP laws to stop the competitor)

European Union - Exemption

- Art 101(3) exemptions for IP - initially
  - individual exemptions (rare) i.e. applicant notified the Commission the notification scheme abolished in 2000-2001 reforms (better to focus on complaints rather than determine what is not prohibited)
  - block exemptions - more important determinant of limits on IP licensing
- Block Exemptions
  - Technology Transfer Block Exemption (which has a "white list' - licence provisions that do not restrict competition and a "black list" - licence provisions that do restrict competition)
  - Block Exemption on R&D Agreements
  - Vertical Restraints Block Exemption

European Union

- Art 102 - abuse of dominance
  - Dominance - the ability to operate independently of competitors and customers (i.e. lack of constraint) - measured by market share, barriers to entry etc. IP by itself does not confer dominance (*Magill)* - need to define market (dominant in a market) - not easy
  - Distinguish:
    - 'exploitative abuse' - using market power to raise price etc
    - 'predatory abuse' - using market power to deter entry, drive competitors out or dictate the terms of competition
  - Magill - ECJ said 'clear' that the exercise of IPRs may 'in exceptional circumstances' be an abuse
  - Examples of abuse
    - refusal to licence
    - tying
    - pricing

Some Other Potentially Anti-Competitive Practices

- Enforcement of a fraudulently obtained patent
- Sham litigation
- Design changes and predatory innovation
- Deceptive conduct in standard setting organisations
- Pharmaceutical settlements and reverse payments
- Group boycotts and concerted refusals to licence
- Vertical price-fixing and copyrighted and trademarked goods

Policy Options for the Intersection

- Let IPRs overide competition law - some practices may not be necessary to innovation and at the same time reduce competition in the short-term
- Let competition law overide intellectual property- but competition law tends to have a short-run focus so overzealous enforcement could deter innovation
- Use US approach - 'rule of reason' i.e. look to whether conduct is unreasonable
- EC approach which uses a two-stage approach which essentially:
  - prohibits conduct that restricts competition (irrespective of reasonableness) - but
  - allows for exemptions under Art 81(3)
- Japan - looks to whether conduct covered by IPR is consistent with promoting innovation - if so then exempt from competition law, if not then conduct analysis under competition law
- Australia - looks at whether conduct substantially lessens competition in a market - depends on how markets are defined - if defined using price elevation tests eg SSNIP or HMT (which only look to short term) then this approach could deter innovation (?)

So What Should Competition Regulators Do?

- Should understand nature of competition in relevant markets i.e. consider non-price competition as well as price. Focus on firm conduct that sets obstacles to firms attempting to develop and commercialise new technologies (product or process)
- Avoid focusing on economic methodologies that allow for easier quantification e.g. price effects rather then new innovation
- Avoid taking a partial approach i.e. examining anti-competitive conduct GIVEN correct grant of IPRs or determining IPRs independently of restraints placed on their use by IP laws etc
- Be wary to ensure regulatory guidelines and decisions take into account informational and institutional limits