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Lecture outline
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NETWORK EFFECTS AND ESSENTIAL FACILITIES

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A. Why Networks Generate So Many Competitive Issues and Conflicts

- Increasing importance in an increasingly interconnected global economy—for interchanging physical traffic, communications, transactions, and information

- Source of potentially increased competition in underlying user markets ("UMs") because networks can match more "buys" and "sells" or allow more competitors to compete effectively in geographically remote markets

- Source of monopoly power in network interchange markets ("NIMs") because of "network effects", barriers to new network entry, interchange restraints, etc.

- Traffic Interchange is a practical necessity in many network contexts and yet establishing the precise terms of interchange is often a highly contentious process

- Strong incentives for vertically integrated enterprises to use a dominant position in a NIM to restrain competition in a UM.

- Competitive imbalances among different types of network users creating market imperfections and/or perceptions of unfairness

- Joint venture networks generate an extra set of antitrust disputes (under EC Article 81, Sherman Act Sec. 1, UK Competition Act Part 1, etc.) that do not apply to a single-owner network. (See Part I below.)

B. Different Types of Networks

- Wholesale interchange networks—networks that serve enterprises serving ultimate users (e.g., Visa, London Stock Exchange, Railtrack). [*These generate the largest proportion of antitrust problems and may sometimes be required to offer access to competitors of existing users.]*

- End-User Networks—networks that offer interchange services to end-users (e.g., AOL, Vodafone, or local cable systems, and telephone operators). [*Where natural monopoly characteristics exist, these networks may sometimes be required to offer interconnection or access to competitors serving ultimate users.]*

- Captive Networks—networks that create brands and perform interchange functions to enable their affiliates to compete in the end-user markets (e.g., American Express)

C. Sources of Market Power in "Network Interchange" Markets

- "Network Effects"—when the network becomes more valuable to each user as the number of other users increases

- Natural Monopoly Characteristics—when unit costs continue to decline over the whole range of projected demand

- Barriers to alternative network entry on an effective scale—especially when effective interchange arrangements are required for effective entry

- Strong Product Differentiation—when one network is not an effective substitute for any other performing a similar interchange function (see *MasterCard UK Members Forum Ltd Multilateral Interchange Fees,* No. CA98/05/05 (OFT) ("*MasterCard MIFs")* at paras 227-246)

D. Vertical Integration as Key Factor in Generating Antitrust Issues for Wholesale Interchange Networks

- The costs and operational effects in the NIM tend to get passed on to competitors in the UM. See DG Competition *Green Paper on Application of Article 82 to Exclusionary Abuses* (Dec. 2005) *("Green Paper")*

- Vertically integrated competitors' incentives. See *Green Paper* para. 231. Where an enterprise (or several enterprises) control a network with market power in the NIM and compete in the UM, it (or they) will generally seek to increase the costs or operational difficulties for its unintegrated UM market competitors.

- The potential issues include rates, technical interconnection standards, eligibility rules, etc

- The *independent network operator* often can have different incentives. It will seek to maximize its NIM revenues; and, to the extent that it faces NIM competition, it will seek traffic from UM competitors by establishing competitive fees and rules.

E. Different Types of Network Antitrust Issues

- Switching fees and other usage fees paid to the network operator

- Exclusivity, bypass and routing rules—rules designed to encourage or compel use of the network.

- Technical standards for interconnection, reliability, security, etc., because different users may have different demands and systems.

- Interchange fees established by the network to balance market imperfections—i.e., fees that one market participant must pay others for originating or terminating traffic or transactions

- Network membership eligibility rules can generate antitrust boycott claims in joint venture contexts

- Interconnection rates, technical conditions and other terms with other networks

- Access for UM participants to other UM users via the network.

F. The Basic Elements in the "Essential Facilities" Doctrine

- Concept. It is a more *tailored application*—often in a network context—of the rules relating to refusals to deal by a monopolist (which are generally more stringent under EC Article 82, and its Member State progeny, than under the U.S. Sherman Act.). It generally requires the controller of a "facility" that is deemed "essential" to share it with its UM competitors on "reasonable and non-discriminatory" terms.

- Essentiality. The doctrine should only apply when a vertically-integrated UM competitor (or a joint venture of such firms) controls the NIM (or other monopoly facility) to which all UM competitors need access. There must at least be a solid showing that other UM competitors cannot

duplicate the NIM (or other facility) with a reasonable investment or effort. *Green Paper p*aras 40, 228-230.[1]

- Feasibility. There must at least be a showing that: (a) providing access is technologically and economically feasible; and (b) no valid business reason for denying access has been established. *Green Paper p*aras 40, 234.

G. The "Essential Facilities" Doctrine Raises Some Especially Difficult Policy Issues

- A fundamental long-run, short-run conflict runs through this area. The *long run* antitrust goal is to promote consumer welfare by maximizing a firm's incentives to innovate, invest and compete hard. In the *shorter run*, a successful monopolist may be able to use some small but vital piece of a much bigger puzzle to prevent or foreclose competition in a broader market where competition would otherwise be quite feasible and consumer stakes are high.

- The "essential facilities" doctrine is driven by *today's* frustration with the second situation, especially when intensified by arrogance or blatant discrimination by the monopolist.

- Types of "facilities". The relevant "facility" to which access is compelled may be *purely physical* (as with a harbour or a terminal), or a *data base* (as with telephone listings), or a *network* (which is a combination of facilities and rules). S*ee U.S. v Terminal RR Assn.*, 224 U.S. 383 (1912) (JV rail terminal), *Sea Containers/Stena Sealink*, Case IV/34.689, OJ 1994 L15/8, [1995], 4 CMLR 84 (port facility)("*Stena Sealink"*),. *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. E.C. Commission*, [1995] ECR I-743) (broadcaster's program scheduling information) (*"Magill")*; *United States v. Realty Multi-List, Inc.*, 629 F.2d 1351, 1370 (5th Cir. 1980). (JV information network), *Associated Press v. United States,* 326 U.S. 1 (1945) (JV news

[1] The *Green Paper* states: "A facility is an indispensable input only when duplication of the existing facility is impossible or extremely difficult, either because it is physically or legally impossible to duplicate, or because a second facility is not economically viable in the sense that it would not generate enough revenue to cover its costs." Para 229

gathering organization); *MCI Communications Corp. v. AT&T*, 708 F.2d 1081 (7th Cir. 1983) (local monopoly telephone network)

- Competitive risks. An overly interventionist compulsory access rule can deter *today's* investment and innovative efforts by a want-to-be monopolist trying to create something that, if successful, could become tomorrow's "essential facility." See *Green Paper* paras 213, 235 It could also encourage free-riding by others who wanted to avoid the risk and cost of trying to create an alternative "facility" that, if successful, would assure competition in tomorrow's markets.[2]

H. Possible Factors to Weigh in Making an "Essential Facilities" Determination

- Source. Was the alleged "essential facility" created by government via franchise, public funds, or ratepayers money? See *Green Paper* para 40

- Investment. Did the "facility" represent a substantial investment that was risky when undertaken? See *Green Paper* para. 235

- Non-investment. Was it more or less a by-product of other activities (e.g., TV program scheduling info in *Magill)*

- Size. Is the "facility" small in relation to the size of UM where competition could efficiently exist? Or is the opposite true?

- Independent operator test. Key questions: "what would an independent operator of the 'essential facility' do vis-à-vis the UM participants? How would it seek to maximize revenues? Would it be likely to encourage expanded use by UM participants?" See *Stena Sealink.* (This may help resolve the question of whether a vertically integrated NIM monopolist's refusal to deal with its UM competitors is "unreasonable".)

- Net balancing. The consumer benefits—both short run and long run—are likely to be the greatest in the case where (a) the critical "essential

[2] This set of issues was very succinctly recognized in the *Green Paper:* "The main purpose of forcing companies to supply is to improve the competitive situation in the downstream market. However, investment incentives may be influenced, both negatively and positively. The knowledge that they may have a duty to supply against their will might lead companies not to invest in the first place or to invest less. Other companies may be tempted to free ride on the investment made by the dominant company instead of investing themselves." Para 213

facilities" bottleneck is small and does not represent a substantial or risky investment by the current operator, and (b) the UM is large and could be highly competitive if unaffiliated competitors were granted access to the monopoly facility. "[I]t may sometimes be necessary in the consumers' interest to also protect competitors that are not 9yet) as efficient as the dominant company." *Green Paper p*ara 67

I. Treating Joint Venture Interchange Networks More Stringently than Dominant Single Firm Networks in the U.S.

- Joint ventures in the U.S. The U.S. courts and agencies have been much tougher on successful joint ventures than on successful monopolists when it comes to compelling access to facilities or rights in order to create or enhance UM competition. D. Baker, *Compulsory Access to Network Joint Ventures Under the Sherman Act: Rules or Roulette?* 1993 Utah L. Rev. 999, 1020-1025 (1993) *("Compulsory Access").* Using "boycott" principles, they have done this even where the joint venture network faces substantial competition in the NIM. See *Associated Press v. U.S., 326 U.S. 1 (1945)*.

- Monopoly Networks in the U.S. By contrast, U.S. law gives individual firms—even those with substantial market power—very substantial latitude to refuse to deal for whatever reason they want. See *U.S. v. Colgate & Co*., 250 U.S. 300 (1919) ("In the absence of any purpose to create or maintain a monopoly, the [Sherman] act does not restrict the long-recognized right of a trader or manufacturer engaged in a purely private business, freely to exercise his discretion as to the parties whom he will deal"). The few leading few cases in which the U.S courts have ordered compulsory access against a single-firm network monopolist have generally involved situations where (a) network access was clearly essential to entry into the UM and (b) the vertically integrated the network monopolist clearly discriminated against particular the UM parties that it competed with. See *Otter Tail Power Co. v. U.S.,* 410 U.S. 366 (1973) (regional electric power transmission network) and *MCI Communications Corp. v. A.T.&T,* 708 F.2d 1081 (7th Cir. 1983) (local telephone networks).[3] By contrast, there was no Section 2 liability for a

[3] *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.,* 472 U.S. 285 (1985) involved a dominant party's revocation of a long-standing joint interchange arrangement with the other party; and was treated by the Supreme Court as "a decision by a monopolist to make an important *change* in the character of the market" without a valid business reason. Based on a jury verdict it was held illegal under Section 2 of the Sherman Act.

major network arrangement that gave the vertically integrated owner "some leverage over its [downstream] competitors…[but its] power fell far short of the power to *eliminate* competition seen in *Otter Tail* and *MCI."* See *Alaska Airlines v. United Airlines,* 948 F.2d 536 (9th Cir. 1991) (airline reservation system run by a leading airline). Moreover, the U.S. does not impose upon a dominant network operator a duty not to discriminate against particular UM participants if it does not itself compete in the UM. *Official Airline Guides v. FTC, 630 F.2d 920 (2nd Cir 1980)*

- Dominant Networks in Europe. Most EC "essential facilities" cases are directed against dominant firm under Article 82 rather than a joint venture under Article 81; and the European law is generally more stringent on refusals to deal by dominant firms. See, e.g., *United Brands v. Commission,* Case 27/76, [1978] ECR 207, *Stena Sealink, Magill* and the *Green Paper* paras 225-236.

- Joint Venture Networks in Europe. These have not been the main focus of "essential facilities" law in Europe as they have in the U.S. However, Articles 81-82 have been used to compel access to an association or standards body where it is essential to carrying out a commercial activity. E.g. *Floral*, OJ 1980 L39/51; [1980] 2 CMLR 285, *X/Open Group*, OJ 1987 L35/36, [1988] 4 CMLR 542. Also, both the European Commission and OFT have used Article 81 or the UK counterpart to attack the interchange pricing by Visa and MasterCard. See *Visa International—Multilateral Exchange Fee,* Case Comp/29/373 (EC 2002); and *MasterCard MIFs (OFT 2005).* (This is significant because it is not clear that MasterCard's market shares, as found by the OFT, would justify a finding of "dominance" necessary to trigger action under Article 82 or Chapter 2 of the Competition Act 1998.)

J. Different Enforcement Institutions and Philosophies as Influencing Antitrust Outcomes

- The antitrust enforcement system in Europe is essentially an *administrative system* in which expert administrative agencies make detailed findings of an infringement which are then subjected to judicial review. The U.K. has adopted this type of essentially civil law process in the Competition Act 1998 and the Enterprise Act 2002—with the OFT (or

a sectoral regulator) responsible for making findings of Competition Act and EU treaty violations, subject to detailed review by the new Competition Appeals Tribunal. See e.g., *MasterCard CIFs.*

- The antitrust enforcement system in the U.S. is essentially a judicial one in which findings of violations are made by Federal District Court Judges (in most Government cases) or by juries (in DOJ criminal cases and most private treble damage cases). The Government's job (in any DOJ civil case and any FTC preliminary injunction action) is to persuade the fact finder that it has proven the facts necessary to establish a violation. Findings of fact by either Judge or jury are accorded very substantial deference by the appellate courts, and are generally not set aside unless clearly erroneous.

- U.S. District Court Judges are generally reluctant to make the detailed types "regulatory" determinations over access terms that can be necessary to support an "essential facilities" order, especially if ongoing supervision is likely to be required; and this can, I believe, increase a judge's reluctance to find a violation that would require an "essential facilities" type of order against as single-firm monopolist. The situation is substantially easier for the judge in the context of a joint venture network—because often the court can order the joint venture to admit newcomers to membership on the same terms as existing members, even if the original members may have borne initial risks that the compulsory new members no longer have to be concerned about. This may help explain why "essential facilities" claims have been most often accepted in the joint venture context and rejected in the single-owner network. See *Alaska Airlines v. United Airlines,* and *Verizon Communications Inc. v. Law Offices of Curtis Trinko,* 540 U.S. 398 (2004) *("Trinko").*

- Administrative agencies may be substantially more willing to make "regulatory" findings than judges because this is generally what is expected of them by parliaments and the public, and they have resources that judges lack to monitor technical compliance. Thus in Europe agencies make findings of excessive pricing in Article 82 abuse of dominance cases (or even Article 81 joint venture cases such as *Visa* or *Mastercard).* In "essential facilities" cases they have been willing to get down to such details as ferry scheduling to maximize use of a

harbour. *Stena Sealink.* All this helps explain the more activist approach to "essential facilities" issues that we have seen in Europe.

K. Conclusions

- The European antitrust tradition is much stronger than the U.S. in dealing with refusals to deal or supply—and it provides momentum in support of "essential facilities" access and interconnection orders against dominant single-owner networks.

- The U.S. approach has generally been to leave these access and interconnection issues to sectoral regulators (most often the Federal Communications Commission), and to reject efforts (especially by private plaintiffs) to create parallel rights under Section 2 of the Sherman Act. See *Trinko.*

- The situation is different for joint ventures, where the US courts have been willing to apply Section 1 of the Sherman Act to denials of access than single firm networks are exposed to. This is part of a broader picture of more stringent antitrust scrutiny of most joint venture pricing and operating decisions and rules; and may help explain why a number of antitrust-prominent joint ventures are switching to a public ownership (see, e.g., MasterCard, the New York Stock Exchange, and most of the leading regional ATM banking networks).

- This underlying institutional differences between the U.S. and Europe may help explain some of the conceptual uncertainty and operational confusion that surround the antitrust "essential facilities", or "bottleneck monopoly" concepts. In determining whether to invoke one of these imprecisely-defined concepts, an antitrust enforcer or a court may be influenced not only by the defendant's market power, motives and conduct—but also by whether it can frame an effective and fair remedy that it could effectively enforce against a foot-dragging monopolist

- To the extent that broad substantive difference exist between Sherman Act Section 1 and 2 and Articles 81-82, this reality may take on increasing practical importance in a world of increasingly global networks and systems—and doubly so if private antitrust litigation becomes an important tool in Europe. See European Commission,

Green Paper on Damages Actions for Breach of EC Treaty Antitrust Rules (20 December 2005); and D.I. Baker, *The EU Green Paper on Private Damages—An Ambitious Response to a Very Difficult Set of Practical and Philosophic Issues,* Competition L.J. (March 2006).

- The stakes may be quite high. Network access or interconnection remedies, if ordered by a *national* agency or court, may often have a *global* effect in the modern interconnected world.

- We could reasonably anticipate that UM competitors (or others) excluded by a *important* (but not necessarily dominant) *joint venture network* would be more likely to look at Sherman Act Section 1 remedies from the U.S. courts or enforcers. On the other hand, UM competitors that had been refused access by a *dominant single-owner network* would be likely to look at the enforcers in Brussels or the Member States for relief under Article 82 EC Treaty or its national counterparts. Private litigation under these laws in the courts of the Member States may also become a more significant likelihood.