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Antitrust and the Licensing of Intellectual Property: The Application of Basic Antitrust Principles

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Historically, there has been a tension between the antitrust laws and intellectual property, particularly the patent grant. The antitrust laws, as interpreted by the courts, perceived intellectual property, and particularly patents, as a monopoly and monopolies were viewed with suspicion.[1] Because of the concern about the patent monopoly, courts began to look for conduct "outside of the scope" of the patent grant as a way to deal with this tension. The difficulty of determining what was in fact outside of the scope of the patent, however, presented significant challenges to the courts and made for often muddled doctrine.

Recently, however, changes in the two bodies of law have led to a reduction of this tension. First, in terms of intellectual property law, the Supreme Court finally recognized in *Illinois Tool Works Inc. v. Independent Ink, Inc*. that a patent does not necessarily result in an antitrust monopoly, which also is referred to as market power or monopoly power.[2] In this regard, market power traditionally is defined by economists and courts in antitrust cases as the ability to raise price or reduce output without losing so much market share that the price increase is unprofitable. Although the owner of a patent has the statutory ability to exclude others from practicing the patented invention, the patentee does not have the ability to prevent consumers from substituting other products that do not infringe the patent but achieve similar results or have a similar use as the patented invention. If consumers, in response to a price increase of the patented product, substitute sufficient numbers of products that do not infringe the patent but achieve similar results such that the price increase becomes unprofitable, the patent does not have market or monopoly power.

In addition, in the antitrust area, the Supreme Court has emphasized that lawfully possessing a monopoly is good for the economy and competition. In *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, the Court noted that a market economy encourages entrepreneurs to innovate or apply business acumen with the goal of obtaining a monopoly.[3] Once a monopoly is obtained lawfully, a monopolist may charge supra-competitive prices. The theory is that supra-competitive prices will attract new entrants that will compete and ultimately return prices to a competitive level. In this regard, Justice Scalia, writing for the majority in *Trinko,* stated the following:

> The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices – at least for a short period – is what attracts "business acumen" in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive *conduct*.[4]

The Supreme Court in *Federal Trade Commission v. Actavis, Inc*. also has raised doubts as to whether the concept of the "scope of the patent" provides immunity to restraints involving patents or intellectual property that might otherwise violate the antitrust laws.[5] In that decision, the Supreme Court reversed the Eleventh Circuit's holding that a reverse-payment settlement involving patented drugs and their generic challengers was immune from antitrust scrutiny because it was within the "scope of the patent." The majority clearly rejected the "scope of the patent" as the sole test of the legality of the settlement. Rather, the majority held that the policies of both the antitrust laws and the patent laws must be considered. It held that the FTC could prove its case under the antitrust laws "as in other rule-of-reason cases."[6]

One result of this apparent easing of the tension between antitrust law and intellectual property is that it is easier to view restraints imposed in the licensing of intellectual property under fundamental antitrust analysis without considering whether the restraint is within the scope of the patent or whether the restraint amounts to patent misuse by being outside the scope of the patent.[7] This article sets forth some of the fundamental antitrust analysis that would be applicable to typical licensing restrictions for intellectual property. It then applies these fundamental antitrust principles to such licensing restrictions.

The Antitrust Laws—A Basic Primer

The principal antitrust laws that implicate restraints that are part of patent or intellectual property licensing are Section 1 and Section 2 of the Sherman Act. Although Section 2 numerically follows Section 1 in the Sherman Act, it best embodies the fundamental concepts that are applied to an owner of intellectual property engaged in licensing restraints.

Section 2 of the Sherman Act

Section 2 of the Sherman Act involves exclusionary conduct by a single dominant firm that affects rivals and thereby injures competition. The phrase "exclusionary conduct" is synonymous with restraints imposed on a licensee that impacts rivals as well as competition. Section 2 covers three different causes of action: (1) monopolization, (2) an attempt to monopolize, and (3) a conspiracy to monopolize.[8]

The elements of a cause of action for monopolization are whether the defendant has a monopoly and whether it has engaged in an anticompetitive act that had an anticompetitive effect. Note the use of the somewhat peculiar word "monopolization." Consistent with the view of the Supreme Court in the *Trinko* case, the law does not condemn a company for merely having a monopoly. Rather, the law condemns anticompetitive conduct to obtain or maintain monopoly power, as opposed to growth or development as a consequence of having a superior product, business acumen, or historic accident.

The existence of market power can be established by direct evidence, such as an inelastic demand curve. If the demand curve is inelastic, this means that consumers have not been able to readily substitute other products in response to a firm's attempt to increase prices above competitive levels.

A monopoly or market power also can be proven by indirect evidence such as by the use of market shares. Generally, if a firm has greater than 80 percent of the share of the relevant market, there is a presumption that the firm has monopoly power. At the other extreme, if the firm has less than 20 percent of the relevant market, it generally is considered not to have monopoly power. Everything in between is in a gray area. On the other hand, it is well-established that high market shares do not necessarily establish monopoly power. If there is ease of entry, a firm with high market shares may not be able to price above competitive levels for fear that new firms will enter the market, increasing output and reducing price.

The elements of a cause of action for an attempt to monopolize are anticompetitive or predatory conduct with a specific intent to monopolize, and a dangerous probability of achieving monopoly power. In general, a lower level of monopoly power is sufficient but a higher level of intent is required.

The rarely used conspiracy to monopolize requires a conspiracy or concerted action with a specific intent to monopolize. The circuit courts are split as to whether proof of a relevant market is necessary. However, generally it is not necessary to prove the existence of market power.

The issue of what is anticompetitive conduct under Section 2 probably is the most difficult aspect of Section 2 cases. Critically, the exclusionary conduct necessary to find a violation of Section 2 must have an anticompetitive effect that harms competition, not just competitors.[9]

The Circuit Court of Appeals for the District of Columbia in the landmark case *United States v. Microsoft Corp.*, set forth a useful framework for determining whether the exclusionary conduct of a monopolist violates Section 2.[10] The framework is a modern step-wise, burden-shifting approach:

> Step 1. Plaintiff must establish a *prima facie* case of "anticompetitive effect." In other words, the conduct must harm competition in general and therefore harm consumers as opposed to harming only a competitor or competitors. In addition, the anticompetitive effect must cause an "antitrust injury." In other words, it must be the type of injury recognized as protected by the antitrust laws. An injury to a competitor, for example, that arises from increased competition is not cognizable under the antitrust laws.

Step 2. If the plaintiff successfully establishes a *prima facie* showing of anticompetitive effect, the defendant monopolist may proffer plausible and cognizable procompetitive justifications for its conduct.

Step 3. If the defendant successfully proffers a plausible and cognizable procompetitive justification, the burden shifts to the plaintiff to prove that the justification is pre-textual or a sham.

If the plaintiff successfully establishes that the proffered justification is in fact pre-textual or a sham, the case is over. The exclusionary conduct is a naked restraint without any legitimate procompetitive justification.

Step 4. If the defendant monopolist's procompetitive justification stands unassailed, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefits.

Section 1 of the Sherman Act

Section 1 of the Sherman Act condemns agreements among two or more independent economic actors that unreasonably restrain trade. The licensing of intellectual property is implicated because the license is viewed as establishing the agreement necessary under the statute.

The statute created by Congress in 1890 contains very broad language.[11] Early on, the Supreme Court rejected a literal approach to Section 1 realizing that a literal approach would have condemned most transactions in commerce. The Court engrafted onto the broad language of Section 1 the requirement that the restraint be "unreasonable." Congress intended that the courts apply the common law to interpret Section 1's broad language.

This concept that only unreasonable restraints are unlawful is referred to as the "Rule of Reason." The Rule of Reason is the presumptive standard.[12] The ultimate test of the Rule of Reason is whether the anticompetitive effects outweigh any procompetitive benefits.

The Supreme Court created a shortcut to the Rule of Reason called the "per se rule." However, the Court held that any departure from the Rule of Reason must be based on demonstrable economic effects rather than "formalistic line drawing."[13] The per se rule applies if the court can say with confidence based on prior experience under the Rule of Reason that the restraint will always or almost always have a net anticompetitive effect. Under the per se rule, the restraint will be deemed unlawful and the effect will be irrebuttably presumed. The law often describes a restraint that has no plausible or cognizable procompetitive justifications as a "naked restraint."

However, when a defendant advances plausible arguments that a practice enhances overall efficiency and makes markets more competitive, per se treatment is inappropriate and the Rule of Reason must apply. This is because such plausible procompetitive arguments mean that the court is unable to conclude with confidence that the restraint will always or almost always have a net anticompetitive effect.[14]

As with Section 2 of the Sherman Act, the case law has established a modern, structured approach to the Rule of Reason which is a step-wise, burden-shifting approach:

Step 1. The plaintiff has the burden of establishing a *prima facie* case of anticompetitive effect.

Step 2. If the plaintiff establishes a *prima facie* case of anticompetitive effect, the burden shifts to the defendants to establish cognizable procompetitive justifications.

Step 3. If the defendant is able to establish cognizable procompetitive justifications, the burden shifts back to the plaintiff to attack those justifications as pre-textual or a sham.

If the plaintiff is successful in attacking the justifications as pre-textual or a sham, the case is over and the plaintiff does not have to introduce evidence of the relevant market and market share.

Step 4. If the defendants proffered procompetitive justifications stand unrebutted, the plaintiff has the ultimate burden of persuasion to establish that the anticompetitive effects outweigh the procompetitive benefits.[15]

Procompetitive Justifications

As can be seen in the foregoing discussion of the law of Section 1 and Section 2, the concept of the procompetitive justification is a critical component of the analysis of both antitrust statutes. Consequently, it's important to consider what is a procompetitive justification. This concept will be the key to analyzing restraints imposed in licensing intellectual property.

In defining a procompetitive justification, it may be helpful to start by considering what it is not. It must not be pre-textual or a sham. In other words, it must be applicable to the case. A good illustration of this concept can be found in the decision of Judge Richard Posner of the Seventh Circuit Court of Appeals in *General Leaseways, Inc. v. National Truck Leasing Association*.[16] This case involved an association of full-service truck lessors that provided each other with emergency service when one of the lessor's trucks suffered a breakdown outside of the lessor's local market. The members of the association were local full-service truck lessors that had joined together to create a national network in order to compete against the large national full-service truck leasing companies such as Ryder who could provide such emergency breakdown service through company-owned facilities located throughout the United States. The members of the association imposed on each other various restraints including a restriction on the number of members within a defined local market. The members also prohibited a member who was not the designated association member within a market from receiving emergency breakdown service or from affiliating with another network that provided such service.

The defendants in *General Leaseways* asserted that the justification for the restraints was the prevention of "free-riding." Free-riding occurs when one competitor invests in point-of-sale services to attract customers but another competitor does not, free-riding on the other's investment. Judge Posner rejected that argument, however, concluding that free-riding was not applicable to the case because the members of the association charged each other for the break-down service. Judge Posner explained that the justification of free-riding is applicable only when the party providing point-of-sale services cannot charge customers for such services, counting on the business with the customer in order to cover the cost of the free services. In this regard, the justification for the restraints was pre-textual and not applicable to the case.

In addition to the justification being applicable to the case, it must be cognizable under the antitrust laws. One of the best illustrations of this concept comes in the seminal antitrust decision *United States v. Socony-Vacuum Oil Co*.[17] This case arose out of an oil glut during the Great Depression. In a market not unlike the market we find ourselves in today in the oil industry, independent producers of oil in West Texas were forced to continue pumping oil despite the fact the prices were so low that they could not cover all of the producers' fixed and variable costs. This led to prices on the so-called spot market to continue to fall. The spot prices also affected the contract prices of various major producers. The majors collaborated on a program whereby each agreed to pair with an independent producer to buy up the oil produced by the independent and take it off the market by storing it. The government brought a criminal antitrust case against the majors, alleging a violation of Section 1 of the Sherman Act. The defendants argued that their agreement to limit the production of crude oil was justified because competition led to unfair oil and gas prices. However, the Supreme Court held that such a justification was not cognizable because it challenged competition itself as being flawed.[18]

A justification for a restraint is procompetitive if the restraint facilitates lower prices, increased output, or increased choices. In a seminal decision in 1898, which has had a resurgence in popularity among the courts and antitrust enforcers beginning in the 1980s, then Judge William Howard Taft in *United States v. Addyston Pipe & Steel Co*. identified five classic restraints under the common law that were deemed lawful because the restraints facilitated lower prices, increased output, and increased choices.[19] One of the five restraints identified by Judge Taft illustrates the concept. Restrictive covenants accompanying the sale of the business may prevent the seller from opening a competing business nearby. Although a real restraint on the seller, is deemed procompetitive because it fosters the sale of businesses, and encourages sellers to invest in developing goodwill that increases the price that the business can be sold beyond the value of the fixed assets.

A more recent decision in the Seventh Circuit Court of Appeals, *In re Sulfuric Acid Antitrust Litigation*, also helps to define the concept of a procompetitive justification.[20] The principal defendants were Canadian companies in the business of mining and smelting non-precious metals such as copper and nickel. A byproduct of the smelting process was the production of sulfuric acid. Because of increased environmental regulations, the companies produced more acid than the Canadian market could absorb. Consequently, the companies considered entering the US market. However, they did not have the infrastructure or relationships with US purchasers thought necessary to do so. The Canadian companies approached US companies that made acid by burning sulfur, and had the infrastructure and relationships to distribute acid in the United States. The companies entered into agreements with the US producers to stop producing their own acid and buy the Canadian acid instead. The plaintiffs challenged these agreements as classic output restraints subject to the per se rule. Judge Posner, writing for the appellate court, held that there was a plausible procompetitive justification for the limitation on output because the restraint facilitated the entry of cheaper Canadian acid into the US market, lowering prices and increasing output.

One antitrust concept that often is considered in conjunction with the determination of plausible procompetitive justifications is whether the restraint is among horizontal or vertical actors. A horizontal agreement or restraint under the antitrust laws is between entities that make or provide substitutes. A vertical agreement or restraint is between entities that make or provide complements. However, it is important to avoid applying these concepts in a formalistic manner. Although some older decisions do so, under modern antitrust analysis, the concepts have meaning only to the extent they say something about whether there are plausible procompetitive justifications. Generally, a vertical restraint can be expected to have plausible procompetitive justifications. On the other hand, horizontal agreements or restraints cannot be condemned without further analysis. A fact pattern that literally may involve horizontal price fixing should still be analyzed under the Rule of Reason if there are plausible procompetitive justifications.[21]

The Application of Antitrust Principles to Intellectual Property Licensing

The foregoing antitrust analysis can be applied to restraints that typically are included in the licensing of intellectual property. This article focuses on patent licensing. However, the same analysis can be applied to the licensing of copyrights and trademarks. This article focuses on an analysis of the plausible procompetitive justifications for typical patent licensing restraints, as well as the anticompetitive effects. A full antitrust analysis, of course, must include a determination of whether the intellectual property has market or monopoly power and whether the anticompetitive effects outweigh the procompetitive benefits. However, if the licensor can establish a plausible procompetitive justification for the restraint, and the justification can withstand an attack that it is pre-textual or not cognizable, then in most instances the licensor will prevail in an antitrust challenge. This is true even if the licensor or the product at issue has market or monopoly power. It is extremely difficult for a plaintiff challenging an antitrust restraint to establish that the anticompetitive effects outweigh the procompetitive benefits, and in many cases, the conclusion that there are plausible procompetitive justifications for the restraints ends the analysis without a balancing between the procompetitive benefits and the anticompetitive effects.

Exclusivity

Fundamental to a patent grant under the patent laws is the right to exclude others from making, using, offering for sale, or selling the invention. If the invention is a process, the patentee has the right to exclude others from using, offering for sale, or selling products made by that process.[22] Such a statutory right to exclude, however, does not provide immunity from the antitrust laws.

For example, consider the following hypothetical: A patent assertion entity that does not itself manufacture any products owns a patent that is essential to a standard established by a standard setting organization. It owes no obligations to the standard setting organization to license the product fairly. In this regard, the patent has monopoly power by virtue of the fact that it is essential to the standard. Assume that the patentee licenses the product on an exclusive basis to a company that competes in the industry using the standard established by the standard setting organization. The patentee allows the licensee to sublicense to specifically enumerated competitors in the industry. The list of competitors to whom the licensee may sublicense was created by the licensee, not the patent owner. The patentee extracts a premium in terms of the royalty to the licensee for the right to sublicense the patent to specific competitors but not to others. The patentee has no justification for this arrangement other than the fact it confers market power on the licensee and permits the licensee to collude with its competitors to fix prices or reduce output. This scenario would be a violation of the antitrust laws regardless of the statutory right to exclude others as part of the patent grant.[23]

On the other hand, exclusivity restraints in licenses often are deemed procompetitive and analyzed under the Rule of Reason. Indeed, the fact that the ability to exclude is part of the patent grant is strong evidence that there may be procompetitive justifications for the restraint.

Generally there are two types of exclusivity licenses. One type is a license that prohibits the licensee from licensing, selling, distributing, or using competing technologies. Another type of license prohibits the licensor from licensing the patent or process to others.

Both types of exclusivity licenses do not necessarily have an effect on competition, the first step in the modern stepwise, burden shifting approach to antitrust analysis. In order to determine whether there is an effect on competition, one must analyze the degree of foreclosure, the duration of the exclusive dealing, the concentration in the relevant market, the ease of entry, and whether there is market power in the product or process subject to license. The analysis of the degree of foreclosure focuses on whether rivals have substitutes either in terms of the inputs used in manufacturing of competing products or in the distribution of the product. This type of exclusivity also may have the effect of raising rival's costs by making it more expensive for them to obtain inputs or develop a distribution mechanism for substitute products.

The principal procompetitive justification for exclusivity is that it encourages or incentivizes the licensee to invest in the resources to develop the patented product or to provide point-of-sale services that are considered essential in competing against substitutes. In this regard, exclusivity may protect against free-riding. If, for example, a patentee issues licenses to two licensees in a particular market, one licensee may provide the point-of-sale services deemed necessary for the patented product to compete against substitutes, and the other licensee does not. The one licensee "free rides" on the efforts of the other licensee. The presence of a free-riding licensee ultimately discourages the licensee providing the point-of-sale services from doing so, thereby frustrating the licensor's marketing scheme.

Refusal to License

Related to an exclusivity restraint in a license is the refusal to license the intellectual property at all. As a general rule, there is no duty for a single firm, even a monopolist acting unilaterally, to refuse to deal with anyone, let alone rivals.[24] However, in certain situations where there is an anticompetitive effect and no plausible procompetitive justification, a refusal to license to a rival may result in antitrust liability.

The refusal to license is part of the patent grant under the patent laws. The law provides that a patent owner otherwise entitled to relief for infringement shall not be denied that relief because it has refused to license or use any of the rights of the patent.[25] However, as previously noted, the fact that a restraint is permitted under the patent laws does not immunize the patent owner from antitrust liability. Although, again the law is strong evidence that there may be a procompetitive justification for the restriction.

Some appellate courts have recognized a so-called essential facility doctrine that would require a duty to deal with rivals under certain circumstances. The elements of an essential facility case are: (1) that the monopolist controls an essential facility; (2) the competitor is unable, practically or reasonably, to duplicate the essential facility; (3) the monopolist denies the rival use of the facility; and (4) it is feasible for the monopolist to make the facility available to competitors.[26] However, the Supreme Court in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, stated that it had never recognized the essential facility doctrine by a single dominant firm.[27]

The Supreme Court in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp*. did find an antitrust violation where a dominant defendant that owned three of the four ski mountains in the Aspen area refused to continue a previously profitable and efficient collaboration to make available an all-mountain lift ticket. In that case, the defendant even refused to accept cash from the rival in order to continue the program. The Court concluded that defendant's conduct had an anticompetitive effect and that there was no procompetitive justification for its refusal to deal and therefore violated Section 2 of the Sherman Act.[28]

One procompetitive justification proffered for a refusal to license is the need to maintain quality. Quality requirements in a license may be difficult to draft and even more difficult to administer. One way to solve the quality problem is for the patentee to make and sell the product itself rather than license the process to others.

Field-of-Use Restraints

A field-of-use restraint in a license generally limits the licensee to selling a product in a specific market or for specific uses. It may be said to be a vertical arrangement if the licensor does not itself manufacture the patented product, or use the patented process, and limits different licensees to making products or selling to customers different from the products or customers others are permitted to make or sell to. The restraint may be said to be horizontal if the licensor itself makes the product or uses the process, reserving certain products or customers to itself, and licensing others to make different products or make products for different customers.

A plausible procompetitive justification for a field-of-use restraint in a license is that it enables the parties to take advantage of the specialization or efficiencies of the licensees in certain fields as opposed to others. For example, consider a patented shock absorbing material. One licensee may have a particular expertise in the equestrian market and another licensee may have an expertise in the running shoe market. By restricting each license to a particular field of use, the patentee maximizes the value of this expertise.

Another plausible procompetitive justification is that field-of-use restrictions are a form of metering. Different categories of licensees place different values on the product. By utilizing field-of-use restraints in a license, the patentee can establish variable royalty rates between different categories of users. This allows the patent holder to maximize the financial return on the invention, incentivizing the patent holder to innovate and license the product, expanding its use in the market.

Care must be taken with the field-of-use restriction to make sure it is not really a vehicle for a horizontal manufacturer cartel to fix prices, reduce output, or allocate markets. In other words, manufacturers of competing products that are substitutes for each other but which do not infringe the patented product, may conspire to fix prices through a market allocation scheme. In order to effectuate this collusion, it may be necessary for them to agree to impose field-of-use restraints on each company's licenses.

Geographic Market Restraints

A geographic-market restraint in a license generally restricts the licensee to using the patented invention or process in a particular geographic market. Of course, restricting a licensee to a particular part of the United States is clearly part of the patent grant authorized by law.[29] However, as noted above, the fact that the law recognizes that a patentee may grant or convey an exclusive right to the whole or any specified part of the United States does not create immunity from the antitrust laws. The statutory authorization to grant or convey an exclusive license to geographic territory is evidence, however, that there likely is a procompetitive justification for the restraint.

The classic procompetitive justification for a geographic market restraint is that it incentivizes licensees to provide services and a level of quality deemed by the patentee to be necessary to compete vis-à-vis interbrand competitors. In this regard, the geographic market restraint would protect against free-riding, which would dampen the incentive to provide such services and the level of quality deemed necessary by the licensor.

The free-riding justification equally would apply to vertical or horizontal restraints. However, as with the field-of-use restraints discussed above, care must be taken to make sure that the restraint is not a means by which a horizontal cartel effectuates a conspiracy.

Tying

Tying involves a patent license in which the patentee agrees to license a patent on the condition that the licensee also licenses or purchases another product. Tying is a form of packaged or bundled licensing. Such packaging or bundling is ubiquitous in our market economy. For example, the creation of a season ticket is an example of a package or bundled product. In this regard, tying can be procompetitive.

Generally, to find tying, there must be two products, a tying product and a tied product, and there must be market power in the tying product. In this regard, tying is a hybrid per se violation in that it requires more than just categorizing the conduct as fitting into a pattern where the courts, based on prior experience, can conclude with certainty that the restraint always or almost always will have an anticompetitive effect.[30] However, it may not invoke the full Rule of Reason analysis.[31]

There are several plausible procompetitive justifications for tying. First, tying can be a form of metering and price discrimination that incentivizes the licensor by taking advantage of licensees that have different values for the tying product. The classic example is the copy machine. A licensor of a patented copy machine may tie the sale of copy paper to the machine. In this regard, the licensee that uses the copier more than others will pay for more paper, allowing the licensor to price discriminate by effectively charging the heavy user more for the combined copier and paper then the user who does not use the patented machine as frequently.

Second, tying can be a way for a licensor to exert control over the quality of the product more efficiently. For example, a pizza franchisor who licenses the pizza trademark to a franchisee may require the franchisee to buy its dough and sauce from the franchisor. Although it may be possible to set specifications regarding the quality of the dough and sauce in a franchise agreement, it is difficult not only to specify such quality requirements in a contract but also to enforce them. For example, the franchisor would be required to have inspectors visit each franchisee to make sure that quality is maintained. If the franchisee is found to have failed in that regard, the franchisor will have to terminate the franchisee, which may leave the location "dark" until a new franchisee can be found. This negatively impacts consumers who expect a franchisee at that location. One way around this is to "tie" the dough and sauce to the licensed trademark.

Third, tying can facilitate new entry. As the preeminent antitrust scholar, Professor Herbert Hovenkamp writes, "A tie can bring the defendant a guaranteed volume of patronage in the tied market that might aid its entry into that market."[32]

Fourth, tying can create efficiencies in production and distribution. If the tying and the tied product are complementary or closely related, requiring them to be purchased as a package or bundle can create efficiencies by having the same manufacturer produce them and the same distributor distribute them.

Output Restraints

Pursuant to an output restraint in a patent license, the patentee limits the amount of product that a licensee may make using the patent. As Professor Hovenkamp writes, the possible procompetitive justification for an output restraint is that the patentee also is manufacturing products under its patent and may use the license to make up shortfalls in its own capacity.[33]

Care must be taken to make sure that an output restraint is not imposed by members of a horizontal cartel on their licensees as a means to effectuate their conspiracy.

Market Divisions

Market divisions, other than geographic market divisions, generally take two forms: (1) a division of products and (2) a division of customers. A patent holder, for example, may license the patent to certain manufacturers with expertise in selling to customers in one area and license to another manufacturer with expertise in selling to customers in another area. In this way, the patent holder better exploits the patent by using the different strengths of different manufacturers.

Another procompetitive justification for this kind of market division is that it encourages licensees, protected from competition from other licensees of the same patent, to provide point-of-sale services deemed by the patent holder to be necessary to compete against competition from products that do not infringe the patent but accomplish the same purpose from the perspective of consumers. The restriction protects against free-riding in this regard. As with other restraints, of course, care must be taken to make sure that the restraint is not a facilitating mechanism by a horizontal cartel to fix prices or reduce output.

Price Restraints

One type of price restraint is when the patent owner sets the price that the licensee may sell the patented product in the downstream market. Under modern antitrust analysis, if the patent holder does not itself manufacturer or sell the patented product, it would be deemed a vertical price restraint analyzed under the Rule of Reason. A plausible procompetitive justification for such restraints is that the price provides the licensee with a sufficient margin to encourage it to make the investment necessary to develop the patented product as well as to provide the incentive for the licensee to provide point-of-sale services deemed necessary to compete against non-infringing products that consumers view as substitutes for the patented product.

If the patent owner also sells the patented product or uses the patented process to make products, any price restraint in a license would still be viewed under the Rule of Reason. Such a situation is known as a "dual distribution" arrangement, which is analyzed under the Rule of Reason. This analysis would apply even though in some respects the patent owner is in a horizontal relationship with the licensee in that both compete for distribution or resale of the patented product. As with the vertical price restraint, the same procompetitive justifications may be applicable.

A patent owner also may charge one licensee a royalty rate different from another licensee. This arrangement is not an antitrust violation. It is justified in part as a means for the patent owner to maximize income. It is a form of price metering.

Of course, as with other licensing restraints, care must be taken to ensure that the restraint is not the result of a horizontal cartel. A price restraint without any plausible procompetitive justification—the so-called naked restraint—generally is treated more harshly under the antitrust laws than other types of restraints.

Grant-Backs

A grant-back in a patent license requires the licensee to grant back to the patent holder the rights to any improvement patents or other technology developed by the licensee related to the original patent. There are several variations of grant-backs: (1) the licensee agrees to license to the licensor any new patents or improvements; (2) the licensee could grant-back an exclusive license or a nonexclusive license to the original patentee; or (3) the licensee could agree to make an outright assignment to the original patentee. Variations also could allow the original licensor only to practice the improvement or could prevent the licensor from sublicensing the improvements to others. Different royalties may be charged the original patent owner for the grant-back of the improvements.

Generally, nonexclusive grant-backs are procompetitive. A grant-back in a license encourages the licensing of the patent because the original patentee does not need to worry about improvements made by licensees that may make the original patent obsolete. This incentivizes the original patent owner to license the patent in the first instance, achieving widespread use of the patented product or process. A grant-back also serves to lower the price of the original license because the patentee does not have to include in the original royalty rate the price of the risk that the licensee may develop such an improvement.

Depending on the type of grant-back, the licensee's incentive to innovate may be stifled. In addition, if the grant-back is exclusive to the original patent owner, this also could limit competition and have an anti-competitive effect.

Pooling and Cross-Licensing

In a patent pool, a number of patent holders commit their patents to a joint venture that markets the package of patents to licensees. Such an arrangement may have a plausible procompetitive justification by reducing transaction costs for both patent holders and licensees, enabling licensees to obtain access to complementary patents in a single blanket license royalty paid to a single entity. It also avoids costly infringement litigation and can address potential patent blocking problems.

A patent pool that involves complementary patents generally is considered lawful in most instances. A patent pool that involves patents that are substitutes for each other also may be lawful with the appropriate plausible procompetitive justifications. However, care must be taken that a patent pool involving substitute patents does not create a cartel of horizontal competitors with no plausible procompetitive justification.[34]

Cross-licensing occurs when two or more patent holders license their patents to each other. A possible plausible procompetitive justification for such cross-licensing exists if the patented technologies block each other. The cross-licensing can allow the products to be used and exploited in the marketplace.

Conclusion

The licensing of intellectual property can be procompetitive in that it allows patent owners to take advantage of various strengths of licensees to market the patented product or products made from the patented process. Care must be taken to consider the antitrust laws in imposing restraints on the licensing of intellectual property. If the patent holder has a legitimate and plausible procompetitive justification for the restraint, it almost always will pass antitrust muster. Historically, the analysis of restraints in the licensing of intellectual property often was muddled. This led to doctrines such as the "scope of the patent," and the doctrine of patent misuse. The modern analysis, however, can use fundamental antitrust principles to determine whether the restraints in a license are lawful.

1. In 1962, the Supreme Court in United States v. Loew's, Inc., 371 U.S. 38, 45-46 (1962), expressly held that "[t]he requisite economic power is presumed when the tying product is patented or copyrighted…." As recently as 1984, Justice John Paul Stevens in the landmark tying case, Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16 (1984), referred to a "patent monopoly." In this regard, he stated: "For example, if the government has granted the seller a patent or similar monopoly over a product, it is fair to presume that the inability to buy the product elsewhere gives the seller market power.… Any effort to enlarge the scope of the patent monopoly by using the market power it confers to restrain competition in the market for a second product will undermine competition on the merits in that second market. Thus, the sale or lease of a patented item on condition that the buyer make all his purchases of a separate tied product from the patentee is unlawful." (Citations omitted).
2. Illinois Tool Works Inc. v. Independent Ink, Inc., 547 U.S. 28 (2006).
3. Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004).
4. *Id.* at 407 (emphasis in original).
5. 133 S. Ct. 2223 (2013).
6. *Id*. at 2237.
7. This was essentially the approach of the Department of Justice Antitrust Division and the Federal Trade Commission in their jointly issued *Antitrust Guidelines for the Licensing of Intellectual Property* released in April, 1995. These guidelines were quite prescient in that they were issued prior to the changes in both intellectual property and antitrust law outlined above.
8. Section 2 of the Sherman Act states in relevant part: "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony …." 15 U.S.C. § 2.
9. One of the reasons why it is difficult to determine whether exclusionary conduct is the kind of conduct condemned by Section 2 is that the effect of the conduct on rivals may be as consistent with good, hard competition as it is with anticompetitive conduct. In both cases the rival may be driven out of business or so crippled that it is not able to compete effectively to counter the conduct of the monopolist.
10. United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).
11. Section 1 of the Sherman Act states in relevant part: "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal." 15 U.S.C. § 1.
12. *See, e.g.,* Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 49 (1977) ("Since the early days of [the 20th century] a judicial gloss on [Section 1's] statutory language has established the 'rule of reason' as the prevailing standard of analysis."); Texaco Inc. v. Dagher, 547 U.S. 1, 5 (2006) ("[T]his Court presumptively applies rule of reason analysis ….").
13. *Continental T.V.*, 433 U.S. 36, 58-59.
14. *See* Paladin Assoc., Inc. v. Montana Power Co., 328 F.3d 1145, 1155 and n.8 (9th Cir. 2003), *citing* Nw. Wholesale Stationers v. Pacific Stationary & Printing Co., 472 U.S. 284, 294 (1985).
15. Support for the step-wise, burden-shifting structured Rule of Reason can be found in the following cases: Polygram Holding, Inc. v. F.T.C., 416 F.3d 29 (D.C. Cir. 2005); In re Sulfuric Acid Antitrust Litig., 703 F.3d 1004 (7th Cir. 2012); F.T.C. v. Actavis, Inc., 133 S. Ct. 2223 (2013); and In re Southeastern Milk Antitrust Litig., 739 F.3d 262 (6th Cir. 2014).
16. Gen. Leaseways, Inc. v. Nat'l Truck Leasing Ass'n, 744 F.2d 588 (7th Cir. 1984). The author was lead counsel for the plaintiff in this case and successfully argued before the Seventh Circuit.
17. United States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940).
18. *See also* National Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679 (1978) (Supreme Court rejected proffered justification of professional association that restraints on using price to bid on jobs were necessary because such price competition led to inferior engineering work, finding that such a frontal attack on competition itself was not a justification cognizable under the antitrust laws).
19. United States v. Addyston Pipe & Steel Co., 85 F. 271 (6th Cir. 1898). An example of a modern antitrust decision that has embraced the teachings of Addyston Pipe is Polk Bros., Inc. v. Forest City Enter., Inc., 776 F.2d 185 (7th Cir. 1985), by the influential antitrust jurist Judge Frank Easterbrook.
20. *Sulfuric Acid*, 703 F.3d 1004. The author was a member of the defense team and played a role in developing the theory of plausible procompetitive justifications that ultimately prevailed in the Seventh Circuit.
21. *See, e.g.,* Broadcast Music, Inc. v. Columbia Broad. System, Inc., 441 U.S. 1 (1979) (The Supreme Court rejected a literal approach to analyzing the collaborative pricing by horizontal competitors of copyrighted music, finding that, although the restraint was literally horizontal price-fixing, it should be analyzed under the Rule of Reason because such pricing was necessary to create and market the product of the blanket license).

22. *See, e.g.*, 35 U.S.C. § 154(a)(1).
23. *See Microsoft Corp.*, 253 F.3d at 62-63 ("Microsoft argues that the license restrictions are legally justified because, in imposing them, Microsoft is simply 'exercising its rights as the holder of valid copyrights.'… Microsoft's primary copyright argument borders upon the frivolous. The company claims an absolute and unfettered right to use its intellectual property as it wishes.… That is no more correct than the proposition that the use of one's personal property, such as a baseball bat, cannot give rise to tort liability.").
24. *See, e.g.*, Olympia Equip. Leasing Co. v. Western Union Tel. Co., 797 F.2d 370 (7th Cir. 1986).
25. *See, e.g.*, 35 U.S.C. § 271(d)(4).
26. *See* MCI Commc'ns Corp. v. American Tel. and Tel. Co., 708 F. 2d 1081 (7th Cir. 1983).
27. *Law Offices of Curtis V. Trinko*, 540 U.S. 398.
28. *See id.* at 409 ("*Aspen Skiing* is at or near the outer boundary of § 2 liability. The Court there found significance in the defendant's decision to cease participation in a cooperating venture.… The unilateral termination of a voluntary (*and thus presumably profitable*) course of dealing suggested a willingness to forsake short-term profits to achieve an anticompetitive end …. Similarly, the defendant's unwillingness to renew the ticket *even if compensated at retail price* reveals a distinctly anticompetitive bent." (Emphasis in original).)
29. *See, e.g.*, 35 U.S.C. § 261 ("Applications for patent, patents, or any interest therein, shall be assignable in law by an instrument in writing. The applicant, patentee, or his assigns or legal representatives may, in like manner, grant and convey an exclusive right under his application for patent, or patents to the whole or any specified part of the United States").
30. *See* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2 (1984).
31. *See, e.g., Microsoft Corp.*, 253 F.3d 34, which applied the Rule of Reason. The court held that the legality of the tying arrangements involving platform software products should be analyzed under the Rule of Reason because of the fact that the courts had little experience with such a business relationship and therefore could not be confident that the restraint would always or almost always have an anticompetitive effect as to justify a per se rule.
32. Phillip E. Areeda & Herbert Hovenkamp, IX Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 1703g4 at 53 (Wolters Kluwer 3d edition).
33. Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley & Christopher R. Leslie, IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law (Wolters Kluwer 2d edition).
34. For an analysis of the government's view of a patent pool involving patents essential to a standard set by a standard setting organization, *see* Department of Justice, Antitrust Division Business Review Letter for Patents for MPEG-2 Technology, 1997 WL 356954 (1997).