

iCompete: Analyzing Vendor-Exclusive Smartphone Tying Arrangements Under Federal Law

By Andrew Greenhalgh*

I. Introduction

[T]here are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.¹

Justice Black made this statement in 1958 in reference to “tying arrangements,” a form of vertical restraint in which a seller coerces consumers by conditioning the sale of a desired product upon the forced purchase of a second product that consumers might not want.² The statement reflects the century-old view that tying arrangements “serve hardly any purpose beyond the suppression of competition.”³ Despite this longstanding condemnation under federal antitrust laws such as the Sherman Act and the Clayton Act,⁴ many tying arrangements are both common and legal today.⁵ For

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¹ N. Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958).

² *Id.* at 5.

³ Standard Oil Co. of Cal. v. United States, 337 U.S. 293, 305 (1949).

⁴ 15 U.S.C. § 1 (2000); 15 U.S.C. § 14 (2000).

⁵ Arik Johnson, *Tying Arrangements: Illegal tying is one of the most common antitrust claims*, COMPETITIVE INTELLIGENCE/COMPETITIVE STRATEGY, available at http://www.aurorawdc.com/arj_cics_tying_arrangements.htm (last visited Apr. 17, 2008) (allegations of unlawful tying arrangements are common).

example, a franchisee must agree to purchase any number of goods dictated by a franchisor in order to purchase a franchise, and users who wish to listen to music purchased from Apple's iTunes music store must also purchase an Apple iPod digital audio player.⁶ While courts often refer to tying arrangements as "*per se*" unlawful, the reality is that such arrangements are only unlawful when the seller, the product and the market all meet a specific set of conditions that create unreasonable anticompetitive effects.⁷

At present, the cell phone industry does not meet these requirements. Cellular service providers often subsidize the sale of expensive handsets when consumers purchase contracts for one or two years of cellular service.⁸ Because the same handsets are available from other cellular service providers and consumers can purchase similar plans from competitors, no single cellular service provider can use a generic cell phone to unreasonably restrain competition on the market.⁹ Moreover, consumers have the option of buying the average mobile handset without purchasing cellular service at all. However, the introduction of "smartphones" complicates things. These smartphones often run proprietary operating systems and, unlike standard mobile handsets that focus solely on voice transmission, they have the potential to handle data transmission, texting, and web browsing better than competitors.¹⁰ Moreover, certain smartphones are exclusively available from one cellular service provider and can only be used with the purchase of cellular service.¹¹ This sea change in the way the cellular service industry works has created a potential for unlawful tying arrangements that did not exist in the industry before 2007.¹²

⁶ Apple's AAC audio files will not play on digital audio players offered by the competitors. However, other music file formats such as MP3s will play on Apple's iPod. See Apple.com, *Itunes: About third-party music players and AAC file support*, <http://docs.info.apple.com/article.html?artnum=93032>.

⁷ See *infra* Parts III-IV (discussing the theory behind unlawful tying arrangements and the test for such arrangements).

⁸ See Fred Vogelstein, *The Untold Story: How the iPhone Blew Up the Wireless Industry*, WIRED, Jan. 9, 2008, available at http://www.wired.com/gadgets/wireless/magazine/16-02/ff_iphone.

⁹ See *infra* Part III.C (distinguishing between lawful and unlawful tying arrangements).

¹⁰ See *infra* Part II.B (discussing smartphone features).

¹¹ See *infra* Part II.B (discussing the iPhone sales arrangement).

¹² Whereas cellular service providers dictated the way mobile handsets were

Whereas federal courts would usually examine unfair competition practices targeting the cellular service industry under the “Rule of Reason,” a practice that requires an in-depth analysis of the market and the positive and negative consequences of the tying arrangement,¹³ these new arrangements dealing with smartphones may warrant the harsher analysis Justice Black described more than sixty years ago.

This Comment will focus in particular upon one smartphone that cannot be used without the purchase of a cellular service contract. A class action lawsuit in California has targeted Apple, Inc. because its increasingly popular smartphone, the iPhone, cannot function at all – either as a phone, a music player, a video player or a modified personal digital assistant - unless consumers also sign a two-year cellular service contract with AT&T.¹⁴ This lawsuit, filed under California antitrust law, focuses on the iPhone as a “tying” product and the cellular service as the “tied product.”¹⁵ However, because AT&T has an exclusive deal with Apple to sell the iPhone for five years, the same lawsuit could be filed against AT&T under federal antitrust law.¹⁶ This Comment addresses whether such an arrangement between Apple and AT&T could be found unlawful under the modified *per se* analysis of tying arrangements.¹⁷ This Comment focuses on the iPhone because its business practices, which were unprecedented in 2007,¹⁸ are now being mimicked by competitors abroad.¹⁹ Under the right circumstances, these arrangements could grow to impose all of the dangers that Congress

made in the past, new agreements between handset producers have turned the tables to allow handset makers to dictate terms to the cellular service providers. Mark Landler, *Nokia Pushes to Regain U.S. Sales in Spite of Apple and Google*, N.Y. TIMES, Dec. 10, 2007, available at <http://www.nytimes.com/2007/12/10/technology/10nokia.html> (quoting John Tysoe, an analyst for Mobileworld).

¹³ Michael A. Carrier, *The Real Rule of Reason: Bridging the Disconnect*, 1999 BYU L. REV. 1265, 1267 (1999).

¹⁴ Complaint at 5, *Smith v. Apple Inc.*, No. 1-07-CV-095781 (Cal. Super. Ct. Nov. 2, 2007), available at https://www.appleiphonelawsuit.com/uploads/2007-11-02_1st_Amended_Complaint_Endorsed.pdf.

¹⁵ *Id.*

¹⁶ See *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 325-26 (1961).

¹⁷ See *infra* Part IV (introducing and discussing the modified *per se* test).

¹⁸ Vogelstein, *supra* note 8, at 1.

¹⁹ Landler, *supra* note 12.

2008]

Smartphone Tying Arrangements

441

sought to avoid by outlawing tying arrangements.²⁰ However, a careful analysis of the mobile handset market at present reveals that the deal between AT&T and Apple, while troubling, is not illegal *per se* – yet.

Section II provides a general overview of the cellular industry.²¹ It outlines the common interaction between cellular service providers and consumers.²² It also distinguishes between general mobile handsets and “smartphones” and outlines the specific retail practices of AT&T and its sales of Apple’s iPhone.²³ Section III provides a brief overview of the Sherman Act.²⁴ It then discusses vertical arrangements in general before specifically describing tying arrangements.²⁵ Section III then discusses the economic and legal theories that justify federal courts’ willingness to find these arrangements *per se* unlawful when they have sufficient anticompetitive effects.²⁶ Section IV outlines the specific modified *per se* test that the Seventh Circuit employs to examine tying arrangements.²⁷ Section V explains why AT&T’s arrangement with Apple, although it constitutes a tying arrangement, is not unlawful under the modified *per se* test.²⁸

²⁰ See *infra* Part III (discussing antitrust law in general and tying arrangements in particular).

²¹ See *infra* Part II.A.

²² See *infra* Part II.A.

²³ See *infra* Part II.B.

²⁴ See *infra* Part III.A (discussing the Sherman Act).

²⁵ See *infra* Part III.B (discussing the various tests used with vertical restraints).

²⁶ See *infra* Part III.C (discussing leverage theory and the potential anticompetitive effects of tying).

²⁷ See *infra* Parts IV.A-D.

²⁸ See *infra* Parts V.C-D (discussing areas in which the contract passes the *per se* test). In the Seventh Circuit, an arrangement that passes the first test is then examined under the Rule of Reason analysis. *Reifert v. S. Cent. Wis. MLS Corp.*, 450 F.3d 312, 317 n.2 (7th Cir. 2006).

II. Overview of the Cellular Service Industry

A. Typical Cellular Service Practices

The cellular service industry generates billions of dollars and affects billions of consumers worldwide. In 1987, back when clunky handsets weighed three pounds and cost in excess of three thousand dollars, just one million subscribers used cell phones worldwide.²⁹ Today more than 2.4 billion people use cellular services worldwide,³⁰ and more than 200 million Americans carry a cell phone.³¹ All told, the cellular service industry generates more than \$11 billion dollars each year.³²

Globally, most cellular service providers use the Global System for Mobile Networks, or GSM, technology to transmit voice and data over a network.³³ Different cellular service providers compete by offering different mobile handsets, different plans, varying degrees of customer service and varying signal reception by area.³⁴ Although consumers have the option of choosing “pay as you go” cellular service from companies like Virgin Mobile, the majority of consumers sign a contract with a cellular service provider.³⁵ These contracts lock consumers into using the cellular service provider’s network for a set period of time, typically one or two years.³⁶ Each contract offers different terms; the typical contract provides users with a set number of minutes each month.³⁷ Most plans also provide unlimited minutes of usage after a certain point in

²⁹ Earthvision Cellular, *The Wireless Industry - An Overview of the Cellular Phone Service in America*, <http://www.cellularphonenews.com/ebook/overview.html> (last visited Apr. 17, 2008).

³⁰ Cellnumbers.com, *Cell Phone Usage Statistics*, <http://www.cellnumbers.com/cell-phone-usage.aspx> (last visited on Apr. 17, 2008).

³¹ A Better Way to Escape Cell Phone Jail, http://redtape.msnbc.com/2005/12/a_better_way_to.html, Dec. 2, 2005 [hereinafter Cell Phone Jail].

³² Vogelstein, *supra* note 18, at 1.

³³ CNET, *Pick a Service Provider*, CELL PHONE BUYING GUIDE, Aug. 1, 2007, available at <http://reviews.cnet.com/cell-phone-buying-guide/?tag=tnav> [hereinafter CNET].

³⁴ *Id.*

³⁵ CNET, *supra* note 33, at Choose A Plan.

³⁶ *Id.* Two-year contracts are now more common than one-year contracts. *Id.*

³⁷ *Id.*

the evening, typically 7 p.m. or 9 p.m.³⁸ The price consumers pay each month depends on how many ‘day-time’ minutes they get to use each month, how many data services, such as text messaging, they use per month, and whatever additional services the contract may include.³⁹

When consumers sign a contract with a cellular service provider, most also purchase a mobile handset from that provider at the same time.⁴⁰ Each handset offers different features - some just have a numerical keypad while others feature a full “QWERTY” keypad modeled after a typical computer keyboard.⁴¹ Some are designed for use with e-mail, texting, video, and other features, while other, cheaper handsets handle nothing but voice calls.⁴² Once consumers purchase a cell phone, they typically honor the contract until it expires, whether or not they are pleased with their cellular service.⁴³

This loyalty is explained in part by the fact that cellular service providers often “lock” mobile handsets so that they will not work with any other cellular service provider’s network.⁴⁴ GSM handsets operate using a card called a “subscriber identification module,” commonly referred to as a SIM card.⁴⁵ When consumers receive a mobile handset as a result of signing a cellular service contract with providers like T-Mobile or AT&T, the phones come “locked” so that they cannot accept a SIM card from a competitor.⁴⁶ Because cellular service providers often greatly subsidize desired mobile handsets when subscribers sign contracts, most of these providers justify locking the handsets to their service to prevent consumers from switching to a different service immediately after

³⁸ *Id.*

³⁹ CNET, *supra* note 33.

⁴⁰ CNET, *supra* note 33.

⁴¹ *Id.*

⁴² *Id.*

⁴³ *See* Cell Phone Jail, *supra* note 31.

⁴⁴ Mark Landler, *supra* note 12.

⁴⁵ Cellnumbers.com, *Unlocked Cell Phone*, <http://www.cellnumbers.com/unlocked-cell-phone.aspx> [*hereinafter* *Unlocked Cell Phone*]. (Last visited April 15, 2008).

⁴⁶ *Id.*

receiving the discounted cell phone.⁴⁷ Beyond technological limitations, cell phone contracts typically impose penalties upon consumers who wish to cancel their service early.⁴⁸ Attempting to switch services can cost consumers hundreds of dollars in penalties; even then, they can only take their handset with them if their service provider agrees to “unlock” it so that it will accept a different provider’s SIM card.⁴⁹

The cellular service industry is just one of many industries that uses technological measures to “lock in” consumers in a way that forecloses them from using their products with services offered by competitors.⁵⁰ “Lock-in refers to the amount of difficulty that consumers face when they try to switch from one product to a competing product.⁵¹ Companies purposefully make it difficult to switch from a product, regardless of consumer satisfaction with that product; for example, cellular service carriers once fought against allowing users to take their existing telephone number and move it to another number, and companies like Microsoft still fight against allowing other companies to access their file formats, which allows them to lock-in consumers who might otherwise stop using Microsoft word-processing and spreadsheet products.⁵² In the cellular service industry, though, lock-ins have nothing to do with allowing the phone to function properly; cellular service providers have no obligation to sell locked phones, and even if they do, they can unlock the phones by supplying a simple code to consumers.⁵³ Courts examine a firm’s

⁴⁷ *Id.*

⁴⁸ See Cell Phone Jail, *supra* note 31.

⁴⁹ See Cell Phone Jail, *supra* note 31. Cellular service providers made more than \$2.5 billion from penalties in the past three years. *Id.* (don’t see the first part supported by the article)

⁵⁰ See Bruce Schneier, *With iPhone, “Security” Is Code for “Control”*, WIRED, Feb. 2, 2008, available at http://www.wired.com/politics/security/commentary/securitymatters/2008/02/securitymatters_0207.

⁵¹ *Id.*

⁵² *Id.* (“With enough lock-in, a company can protect its market share even as it reduces customer service, raises prices, refuses to innovate and otherwise abuses its customer base.”).

⁵³ Cyrus Farivar, *Locked vs. Unlocked: Opening Up Choice*, N.Y. TIMES, Nov. 1, 2007, available at <http://www.nytimes.com/2007/11/01/technology/personaltech/01basics.html?ex=1353819600&en=9904e055336ec151&ei=5124&partner=permalink&expod=permalink>.

efforts to lock-in its customers when examining whether an illegal tying arrangement exists.⁵⁴

B. The Rise of “Smartphones” in the Industry

The cellular service industry originally mirrored the landline telephone industry in that its operations focused on transmitting voice data across networks. Within the last decade, though, a new series of devices called “smartphones” have extended the uses of cellular service and blurred the distinction between mobile handsets and ultraportable personal computers.⁵⁵ No standardized definition of a smartphone exists, but most devices referred to as smartphones run operating systems, just like personal computers, and all run applications that go far beyond the transmission of voice over a network.⁵⁶ At the very least, these phones combine the features of a personal digital assistant with the features of a normal telephone.⁵⁷ Currently, the smartphone market comprises roughly 5 percent of the more general cell phone market.⁵⁸

In practice, smartphones present a greater danger of lock-in than regular mobile handsets. Each smartphone typically runs a single operating system that cannot be replaced.⁵⁹ Further, smartphones require two plans: a voice plan for normal calling and a data plan for checking e-mail and surfing the Internet.⁶⁰ Certain smartphones only work with certain data networks.⁶¹ As analysts

⁵⁴ See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 476-77 (1992) (discussing the effects of lock-ins). Lock-ins provide firms with “leverage” that makes it easier for them to discriminate based on price. *Id.*

⁵⁵ Jo Best, *Analysis: What is a smartphone?*, SILCON.COM, Feb. 13, 2006, <http://networks.silicon.com/mobile/0,39024665,39156391,00.htm?r=3>.

⁵⁶ *Id.*

⁵⁷ See Daniel Eran, *Smartphones: iPhone and the Big Fat Mobile Industry*, ROUGHLY DRAFTED, Jan. 21, 2007, <http://www.roughlydrafted.com/RD/RDM.Tech.Q1.07/BEC05CE1-D5EB-4E48-B46C-7385D5AADCFC.html>.

⁵⁸ *Id.*

⁵⁹ See Miguel Helft, *Google Sees Surge in iPhone traffic*, N.Y. TIMES, Jan. 14, 2008, available at <http://www.nytimes.com/2008/01/14/technology/14apple.html> (discussing the mobile handset industry).

⁶⁰ See AT&T Wireless, <http://www.wireless.att.com/cell-phone-service/cell-phone-plans/index.jsp> (last visited April 15, 2008).

⁶¹ AT&T uses the “EDGE” data network but Sprint’s mobile network, EV-DO, provides greater speeds. Kara Rowland, *Sprint takes on AT&T, iPhone*, WASH.

predict that the still-developing smartphone industry will grow 33 percent each year through 2012,⁶² the chances increase that early “lock-in” for these mobile handsets will directly affect the market share of the corresponding cellular services, as well as the operating systems on the handsets, the data networks the handsets use, and the software that runs on the handsets.

Apple Inc.’s smartphone, the iPhone, exemplifies the concerns over “lock-in” for two reasons: (1) its unprecedented exclusivity contract with cellular service provider AT&T, and (2) its rapid growth in market share since launch. Although cellular service providers commonly control which phones operate on their networks by refusing to subsidize and sell certain handsets to consumers,⁶³ this practice has rarely resulted in exclusivity because competing firms also sold the same mobile handset.⁶⁴ Consumers cannot use the iPhone with any network other than AT&T because Apple and the company formerly known as Cingular, long since gobbled up by AT&T, signed a five-year exclusivity arrangement.⁶⁵ Consumers can purchase the iPhone directly from Apple’s brick-and-mortar or online stores, but the device cannot be used, even to play music or watch movies or browse the Internet over WiFi, until it has been activated. The device can only be activated by signing a two-year contract with AT&T.⁶⁶ The company has signed similar deals abroad,⁶⁷ although recently a court rendered a similar deal between Apple and T-Mobile

TIMES, April 1, 2008, available at <http://washingtontimes.com/apps/pbcs.dll/article?AID=/20080402/BUSINESS/469559026/1006>.

⁶² Al Sacco, *Mobile Broadband Usage up 157 Percent in 2007*, PC WORLD, Mar. 7, 2008, available at <http://www.pcworld.com/article/id,143191-c,mobilebroadband/article.html>.

⁶³ Landler, *supra* note 12.

⁶⁴ Motorola’s popular “Razr” handset, for example, is available for sale from T-Mobile, AT&T, Verizon, Alltel, and Sprint.

⁶⁵ Vogelstein, *supra* note 18, at 1.

⁶⁶ Apple, Inc., *Rate Plans for iPhone*, <http://www.apple.com/iphone/easysetup/rateplans.html> (“Minimum new 2-year wireless service plan and activation fee required to activate iPhone features, including iPod; plans are subject to AT&T credit approval.”) (Last visited April 15, 2008).

⁶⁷ Victoria Shannon, *iPhone Must Be Offered Without Restrictions, German Court Rules*, N.Y. TIMES, Nov. 21, 2007, available at <http://www.nytimes.com/2007/11/21/technology/21iphone.html?ex=1353387600&en=10559d8b85e747cb&ei=5124&partner=permalink&exprod=permalink>.

illegal in Germany.⁶⁸ In the United States, the use of third-party software to unlock the iPhone certainly breaches any consumer's contract with AT&T and may even violate the Digital Millennium Copyright Act.⁶⁹ Other cellular service providers unlock their phones on certain conditions, but AT&T has announced that it will not allow users to unlock its phones,⁷⁰ raising the question of what good the device will be to consumers if they want to switch providers at the end of their two-year contract.

Despite this lock-in effect, the relatively new iPhone has rapidly gained market share in the American smartphone market. Although the iPhone has a 6.5 percent market share worldwide,⁷¹ its market share in the United States is 28 percent after spending fewer than two years in the market.⁷² The device has also made inroads into the market for mobile broadband users; its large touch screen interface works together with Apple's portable version of its Safari web browser to make it "the first cell phone browser that promised something resembling the experience of surfing the Internet on a PC."⁷³ This ease of use has manifested itself through a large online footprint; on December 25, 2007, search engine and web portal Google received more search requests from the iPhone than from any other mobile broadband device.⁷⁴ The amount of mobile broadband users is only expected to increase since Apple's announcement that it had developed a software development kit that will allow third-parties to port popular business software to the device.⁷⁵ This rapid growth, in combination with AT&T's unlocking policy, has already spurred one lawsuit in California accusing the company of engaging in an unlawful tying arrangement.⁷⁶ The next section explains what a

⁶⁸ *Id.*

⁶⁹ Farivar, *supra* note 53.

⁷⁰ *Id.*

⁷¹ Connie Guglielmo, *Features Added to iPhone*, WASH. POST, Mar. 7, 2008, available at <http://www.washingtonpost.com/wp-dyn/content/article/2008/03/06/AR2008030603711.html>.

⁷² *Id.*

⁷³ Helft, *supra* note 59.

⁷⁴ *Id.* Today the search requests are second to users running Nokia's Symbian operating system. *Id.*

⁷⁵ Guglielmo, *supra* note 71.

⁷⁶ See *Smith v. Apple Inc.*, No. 1-07-CV-095781 (Cal. Super. Ct. Nov. 2,

tying arrangement is and why federal courts have traditionally frowned upon them.⁷⁷

III. Theory of Tying Arrangements

A tying arrangement is an express or implied agreement in which a consumer (a) must purchase Item A in order to purchase Item B, or (b) agrees not to purchase Items D and E from the competition as a condition of purchasing Item A.⁷⁸ Although these arrangements are common in many industries, they can violate federal antitrust laws when they produce sufficient anticompetitive effects.⁷⁹ The first part of this section provides a brief overview of the Sherman Antitrust Act of 1890 (“Sherman Act”),⁸⁰ which provides the basis for federal regulation of tying arrangements.⁸¹ The second part of this section discusses the judicial scrutiny of vertical restraints, the broad subsection of potentially anticompetitive agreements between firms that can negatively impact consumers.⁸² The final part of this section introduces tying arrangements and distinguishes the characteristics of lawful tying arrangements and unlawful tying arrangements.⁸³

A. The Sherman Act

In federal courts, plaintiffs have standing to challenge tying arrangements under the Sherman Antitrust Act of 1890 (“Sherman Act”).⁸⁴ The relevant portion of the Sherman Act states: “Every

2007), *complaint available at* https://www.appleiphonelawsuit.com/uploads/2007-11-02__1st_Amended_Complaint_Endorsed.pdf.

⁷⁷ See *infra* Part III.

⁷⁸ Johnson, *supra* note 5.

⁷⁹ *Id.* (providing an overview of tying arrangements).

⁸⁰ 15 U.S.C. § 1 (2000).

⁸¹ See *infra* Part III.A (discussing the general protection that antitrust laws provide for consumers).

⁸² See *infra* Part III.B (discussing the application of the “rule of reason” to certain vertical restraints and introducing the categories of vertical restraints that are “*per se*” unlawful).

⁸³ See *infra* Part III.C (distinguishing between “harmless” tying and tying that has anticompetitive effects).

⁸⁴ Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 4 n.1 (1984).

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 hereby declared to be illegal.”⁸⁵ The Sherman Act itself imposes felony penalties on persons or corporations who engage in prohibited conduct,⁸⁶ as a matter of civil law, the Clayton Act and subsequent provisions grant consumers a right to sue for violations of the Sherman Act in federal court.⁸⁷

Although the Sherman Act arose as a response to public demand for antitrust measures, the general prohibitions of its first section target the anti-competitive practices commonly associated with monopolies in any context.⁸⁸ The Act grants federal courts the power to examine a full array of anti-competitive practices ranging from price measures to backroom deals among supposed competitors,⁸⁹ but its general purpose is to protect consumers by ensuring fair competition, low prices, and efficient allocation of resources.⁹⁰ As a practical matter, this results in varying levels of

⁸⁵ 15 U.S.C. § 1.

⁸⁶ *Id.* (imposing fines up to \$1,000,000 for corporations that engage in anticompetitive practices). For private individuals found guilty of Sherman Act violations, the penalty can include both the \$1,000,000 fine and a prison term not to exceed ten years. *Id.*

⁸⁷ 15 U.S.C. § 14; 15 U.S.C. § 15(a) (2000) (“any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefore in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney’s fee.”) The “Clayton Act” is comprised of 15 U.S.C. § 12-27. As a practical matter, the Clayton Act provides private actors with an avenue to seek injunctions against anticompetitive practices.

⁸⁸ See WILLIAM LETWIN, LAW AND ECONOMIC POLICY IN AMERICA: THE EVOLUTION OF THE SHERMAN ANTITRUST ACT 15-16 (1980) (noting public demand prompted Congress to pass a vague, general law ostensibly reflective of existing common law prohibitions against anticompetitive practices). The general nature of the Act allowed courts to fashion a policy that preserved lawful competition. *Id.* at 16.

⁸⁹ See Murray S. Monroe, *Antitrust Symposium: Vertical Restraints*, 27 U. TOL. L. REV. 433, 434 (1996) (discussing an array of restraints on competition that includes price fixing, exclusive dealing arrangements, reciprocal arrangements and tie-in agreements).

⁹⁰ *N. Pac. Ry. Co.*, 356 U.S. at 4 (discussing the theory behind federal antitrust law). The Sherman Act “rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the

scrutiny targeting agreements between businesses that can negatively impact consumers.⁹¹

B. Vertical Restraints

Laws against tying arrangements developed as a subset of laws against the general practice of vertical restraints. In antitrust terms, a restraint is a limitation that one party in a transaction imposes on another party in the transaction.⁹² A “horizontal restraint” arises when parties at the same level attempt to place limitations upon one another.⁹³ In contrast, “vertical” restraints occur when a party at a higher level in the supply chain in the business transaction imposes a condition upon a party at a lower level of the supply chain.⁹⁴ Vertical restraints typically involve manufacturers imposing conditions upon retailers who wish to sell the manufacturer’s product and retailers imposing conditions on consumers who wish to purchase the product through the retailer.⁹⁵

Although the plain language of the Sherman Act appears to outlaw all such restraints,⁹⁶ the Supreme Court has clarified that the Sherman Act only applies to “unreasonable” restraints on competition.⁹⁷ When dealing with most allegedly anti-competitive restraints, the Supreme Court applies a “rule of reason” analysis in which it examines each restraint’s effect on competition on a case-by-

same time providing an environment conducive to the preservation of our democratic political and social institutions.” *Id.*

⁹¹ See Monroe, *supra* note 89, at 434 (discussing restraints involving deals between manufacturers and distributors and restraints arising from deals between competitors).

⁹² *Bus. Elec’s. Corp. v. Sharp Elec’s. Corp.*, 485 U.S. 717, 732 (1988). The term “restraint” comes from the language of the Sherman Act. See 15 U.S.C. § 1 (restraint of trade). The Court recognizes that the general term applies to a host of activities subject to malleable rules. *Bus. Elec’s. Corp.*, 485 U.S. at 731-32 (citing *Gibbs v. Consol. Gas Co.*, 130 U.S. 396, 409 (1889)) (noting that even at common law the courts refused to hold rules regarding restraints as set in stone).

⁹³ *Bus. Elec’s. Corp.*, 485 U.S. at 729-30 (distinguishing between horizontal, vertical, and “naked” restraints).

⁹⁴ Monroe, *supra* note 89, at 434.

⁹⁵ *Id.*

⁹⁶ See 15 U.S.C. § 1 (applying to any contract “in restraint of trade” without qualification).

⁹⁷ *Nat’l Collegiate Athletic Assn. v. Bd. of Regents of Univ. of Oklahoma*, 468 U.S. 85, 98 (1984).

case basis.⁹⁸ However, when the Court identifies a “manifestly anti-competitive” restraint, it applies a *per se* approach in which it holds the restraint unlawful even if the firm has an arguably valid justification for imposing the restraint.⁹⁹

For example, competitors that control a substantial amount of trade in Item A engage in *per se* unlawful activity when they intentionally exchange pricing information in order to fix prices for Item A at a certain level, even if the competitors settle on a price that consumers find reasonable.¹⁰⁰ In 2004, the federal government obtained guilty pleas from competitors in the electronics industry who conspired to fix the prices of DRAM, a variety of random-access memory widely used in computer systems, and secured fines of \$250,000 and prison terms ranging from four to six months for executives involved.¹⁰¹ When faced with instances of horizontal restraint, federal courts find price-fixing *per se* unlawful regardless of whether the competitors collude to fix maximum, minimum or uniform prices because they almost always inhibit competition by deterring or stifling entry into the market, and providing the same reward to all competitors regardless of their superior skill, training, or willingness to innovate.¹⁰²

In contrast, the Court applies the “rule of reason” to vertical restraint scenarios in which a manufacturer requires retailers to sell its product at a set minimum price.¹⁰³ Unlike horizontal price fixing,

⁹⁸ *Continental T. V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 49 (1977) (citing *Standard Oil Co. v. United States*, 221 U.S. 1, 66 (1911)).

⁹⁹ *Bus. Elec’s Corp.*, 485 U.S. at 723 (quoting *Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co.*, 472 U.S. 284, 289-290 (1985)). Manifestly anticompetitive restrictions are those that, on their face, “always or almost always tend to restrict competition or decrease output.” *Id.*

¹⁰⁰ *United States v. Trenton Potteries Co.*, 273 U.S. 392, 398 (1927). In a decision that the Court has not deviated from in regard to horizontal restraints, the Court stated that “[t]he power to fix prices, whether reasonably exercised or not, involves power to control the market and to fix arbitrary and unreasonable prices. The reasonable price fixed today may through economic and business changes become the unreasonable price of tomorrow.” *Id.* at 397.

¹⁰¹ Press Release, United States Department of Justice, Four Infineon Technology Executives Agree to Plead Guilty in International DRAM Price-Fixing Conspiracy (Dec. 2, 2004), available at http://www.usdoj.gov/atr/public/press_releases/2004/206631.htm.

¹⁰² *Arizona v. Maricopa County Med’l Soc’y*, 457 U.S. 332, 346-48 (1982).

¹⁰³ *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 127 S. Ct. 2705, 2720 (2007) (overturning century-old precedent holding such restrains as *per se*

these manufacturer-suggested retail prices, which could now become manufacturer-required retail prices (1) help stimulate competition between manufacturers by stifling price-competition between retailers, (2) induce retailers into investing in alternative, less-expensive variants of the manufacturer's product, and (3) rewards retailers that expend money on providing high-quality service in selling the manufacturer's product over retailers that provide inferior service in order to sell the manufacturer's product at a cut rate.¹⁰⁴ When firms create vertical restraints that have these pro-competitive benefits, the courts almost always find them lawful.¹⁰⁵ As such, the courts typically uphold vertical restraints such as exclusive dealing, exclusive appointments and refusals to deal because they are not "manifestly anti-competitive."¹⁰⁶ In contrast, tying arrangements are a form of vertical restraint that exists in a limbo somewhere between the rule of reason and *per se* unlawfulness.¹⁰⁷

C. Tying Arrangements

A tying arrangement is an arrangement in which consumers must agree to purchase Item B in order to buy Item A.¹⁰⁸ When examining tying arrangements, courts refer to the item that consumers actually wish to purchase as the "tying product."¹⁰⁹ In a tying arrangement, consumers cannot purchase the tying product unless they purchase the "tied product" as well.¹¹⁰ The first part of this section discusses the reasons why courts render many tying arrangements unlawful.¹¹¹ The second part of this section

unlawful).

¹⁰⁴ *Id.* at 2715-16.

¹⁰⁵ *W. Power Sports, Inc. v. Polaris Indus. Partners*, 744 F. Supp. 226, 229 (D. Idaho 1990) ("No cases have been found that have awarded the plaintiff a victory after a 'rule of reason' analysis.").

¹⁰⁶ *See Monroe, supra* note 89, at 434.

¹⁰⁷ *See infra* Part III.C (discussing the rules and policy relating to tying arrangements).

¹⁰⁸ *See Johnson, supra* note 5.

¹⁰⁹ DENNIS W. CARLTON & JEFFREY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 321 (4th ed. 2005).

¹¹⁰ *Id.*

¹¹¹ *See infra* Part III.C.1 (discussing the alleged anticompetitive effects of tying arrangements).

distinguishes the characteristics of a lawful tying arrangement and an unlawful tying arrangement.¹¹²

1. The Anticompetitive Effects of Tying Arrangements

Tying arrangements have been criticized on several grounds. First, they unfairly coerce consumers into buying a product that they might not want.¹¹³ Second, they impair competition based on the merits of a product by preventing competitors from competing based on product quality.¹¹⁴ Third, tying arrangements “foreclose” competition in the sale of the tied product imposing hurdles on market entry that have nothing to do with quality, strategy, price, or any of the other hallmarks of a competitive market.¹¹⁵ This section addresses each of the arguments in turn.

a. Consumer Coercion

When retailers impose tying arrangements upon consumers, they use consumer demand for one product as leverage to coerce consumers into purchasing another product that consumers might not even want.¹¹⁶ By coercing consumers through a tying arrangement, a competitor arguably violates public policy by impinging on the “freedom of choice” inherent in an open market.¹¹⁷ Despite its inherent unfairness to consumers, this argument against tying carries little weight because antitrust law focuses on competition, not consumers.

If consumers had no intention of purchasing the second product at all, the tying arrangement merely harms consumer

¹¹² See *infra* Part III.C.2 (distinguishing between common tying arrangements that consumers encounter and unlawful tying arrangements that the courts have struck down).

¹¹³ Alan Devlin, Comment, *A Neo-Chicago Perspective on the Law of Product Tying*, 44 AM. BUS. L.J. 521, 523 (2007).

¹¹⁴ See *infra* Part III.C.1.b (discussing choices that prevent other competitors from competing by providing a higher-quality product).

¹¹⁵ See *infra* Part III.C.1.c (discussing the concept of foreclosure as it applies to the Supreme Court’s tying arrangement jurisprudence).

¹¹⁶ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 12.

¹¹⁷ See Kenneth J. Burchfiel, *Patent Misuse and Antitrust Reform: “Blessed be the Tie?”*, 4 HARV. J. LAW & TEC. 1, 28-29 (1991) (comparing the consumer choice argument to the “foreclosure” argument).

pocketbooks; the Sherman Act, however, concerns itself with “restraints on trade.”¹¹⁸ When retailers coerce consumers into purchasing an item that they would not otherwise buy, no restraint on competition occurs with regard to *consumers*; if consumers have no reason to purchase the tied product from anyone else for any reason, no competition among consumers actually existed for that consumer’s business in the tied product’s market.¹¹⁹ Instead, the tying arrangement has the same effect on competition that it would have if no other competitors existed for that tied product.¹²⁰

b. Meritless Competition

When federal courts address consumer coercion, they do so from the perspective of the competition: when firms create tying arrangements, they force consumers to purchase the tied product based on their desire for an item in another market, the market for the tying product, rather than on the merits of the market for the tied product.¹²¹ Whereas one would expect consumers to reward a competitor’s efforts by gravitating toward a product of a higher quality in a competitive market, a tying arrangement removes quality from the equation and allows a competitor to push an inferior product upon consumers.¹²²

Even when a tying firm produces a quality product, a tying arrangement can still offend merit-based competition because it prevents consumers from choosing a product of equal quality from

¹¹⁸ 15 U.S.C. § 1.

¹¹⁹ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 16 (“[W]hen a purchaser is “forced” to buy a product he would not have otherwise bought even from another seller in the tied product market, there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed.”).

¹²⁰ See *Reifert*, 450 F.3d at 318 (noting that without competitors, a tying arrangement has no effect on competition at all).

¹²¹ *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 605 (1953) (“By conditioning [the] sale of one commodity on the purchase of another, a seller coerces the abdication of buyers’ independent judgment as to the ‘tied’ product’s merits and insulates it from the competitive stresses of the open market.”).

¹²² *Jefferson Parish Hosp. Dist. No. 2.*, 466 U.S. at 14 (discussing the anticompetitive effects that result when sellers use market power “to impair competition on the merits in another market, a potentially inferior product may be insulated from competitive pressures”).

2008]

Smartphone Tying Arrangements

455

the firm's competitor.¹²³ The Supreme Court encountered this situation in one of its earliest cases involving the tying of a patented product to a product that cannot be patented.¹²⁴ In *International Salt Co. v. United States*, International Salt refused to sell its patented "Lixator" and "Saltomat" devices unless purchasers agreed not to purchase salt from any other company.¹²⁵ Although the two patented devices used ordinary salt available from many of International Salt's competitors, the company argued that the tying agreement benefited consumers because the contracts ensured that consumers would use salt of a certain quality, which in turn would ensure that the machines stayed in proper working order.¹²⁶ Furthermore, the company already sold its salt at competitive market prices.¹²⁷

The Supreme Court refused to entertain the argument because International Salt failed to show that other competitors could not produce and sell salt of a quality equal to International Salt's product.¹²⁸ Although the tying arrangement did not harm consumers directly because it provided for competitive rates on the sale of its salt,¹²⁹ the arrangement had a "stifling effect" that harmed International Salt's competitors because it forced them to "undercut" their prices to compete effectively.¹³⁰

c. Foreclosure

In a way, the removal of merit from competition is just one aspect of a larger problem created by tying arrangements: foreclosure. When a firm "forecloses" the market for a product, it effectively denies other firms the ability to compete in that market.¹³¹ Such foreclosures often occur legally when a firm operates so well, or

¹²³ See *Int'l Salt Co. v. United States*, 332 U.S. 392, 398 (1947) (criticizing a salt company for tying its patented salt machines to the purchase of its unpatented salt products).

¹²⁴ *Id.*

¹²⁵ *Id.* at 394-95.

¹²⁶ *Id.* at 397.

¹²⁷ Burchfiel, *supra* note 117, at 35-36.

¹²⁸ *Id.* at 36.

¹²⁹ *Id.*

¹³⁰ *Int'l Salt Co.*, 332 U.S. at 397.

¹³¹ See *Fortner Enter., Inc. v. United States*, 394 U.S. 495, 513 (1969).

maintains the ability to offer prices so low, that other competitors cannot compete profitably.¹³² By that same token, another competitor can legally, though not sensibly, foreclose competitors from entering the market by opting to sell the product at a loss.¹³³ The Supreme Court's long-standing difficulty with certain tying arrangements, however, stems from the idea that it is anticompetitive for a firm to foreclose competitors in one market by using the power it developed in the market for another product.¹³⁴

In *Fortner v. U.S. Steel*, the idea of foreclosure especially troubled the Court because of the barriers on entry that such tying arrangements imposed on firms wishing to enter the market. Beyond creating a quality product at a competitive price, any firm wishing to enter the market had the additional burden of overcoming the "attraction of the tying product itself."¹³⁵ Such an arrangement can burden firms by requiring them to enter into two markets at once, a practice that imposes significantly greater expense than entry into a single market.¹³⁶ Such ties also decrease the likelihood that new firms will want to enter the market because, by binding a substantial proportion of potential consumers through the sale of a product in a different market, the tying firm has significantly drained the pool of prospective customers.¹³⁷

2. Lawful vs. Unlawful Tying Arrangements

Although the many anticompetitive theories associated with tying arrangements forecast doom and gloom for the practice, tying arrangements are actually quite common.¹³⁸ These arrangements are common because they are not inherently unlawful.¹³⁹ Instead, they

¹³² Note, *The Logic of Foreclosure: Tie-In Doctrine After Fortner v. U.S. Steel*, 79 YALE L.J. 86, 92 (1969).

¹³³ *Id.*

¹³⁴ *Id.* at 86.

¹³⁵ *Fortner Enter.*, 394 U.S. at 513.

¹³⁶ Christopher R. Leslie, *Tying Conspiracies*, 48 WM. & MARY L. REV. 2247, 2261-62 (2007).

¹³⁷ Kurt A. Strasser, *An Antitrust Policy for Tying Arrangements*, 34 EMORY L.J. 253, 268-69 (1985) (noting that this can thin a market to the point where it ceases to function competitively).

¹³⁸ See Johnson, *supra* note 5.

¹³⁹ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 22 n.34 (noting that the

are only unlawful when they are likely to, or actually do, produce these anticompetitive effects.¹⁴⁰ Under the modified *per se* test developed by the Supreme Court, the tying arrangement must meet a set of demanding criteria before the Court determines that it is likely to be anticompetitive and therefore unlawful.¹⁴¹ When the arrangement meets those criteria, it must be halted because it has the potential to become “one of the greatest agencies and instrumentalities of monopoly ever devised by the brain of man.”¹⁴²

But when a tying arrangement does not meet those criteria, it fails to produce sufficient anticompetitive effects and is therefore considered harmless. Justice Black set out much-used example of harmless tying in 1958 when he discussed a tying arrangement in which a grocery store refused to sell flour unless customers also purchased sugar as well.¹⁴³ If a dozen other grocery stores exist in the area, and each is willing to sell sugar and flour separately, then the tying arrangement has no anticompetitive effects. Similarly, if the tying grocery store offers sugar and flour separately as well, but provides a discount when consumers purchase them together, the tie has no anticompetitive effects. In this situation, the tied items are fungible, not unique, and the arrangement neither forecloses the flour or sugar markets to new competitors nor provides the tying grocery store with an edge in the flour business based on its power in the sugar market. In such a situation, the tie is lawful because it “would hardly tend to restrain competition.”¹⁴⁴ Today, such harmless ties are abundant in commerce.¹⁴⁵ The next section discusses the Supreme Court’s jurisprudence regarding the rarer creature, the tie that creates

Sherman Act prohibits restraints on trade, not tying arrangements). A tying arrangement is not automatically a restraint on trade.

¹⁴⁰ *Id.* (illegality depends on anticompetitive effects, not the fact that the sale of one product is conditioned on the sale of another).

¹⁴¹ See *infra* Part IV (discussing the test for *per se* unlawfulness).

¹⁴² H.R.REP. No 63-627, at 13 (1914), reprinted in 2 THE LEGISLATIVE HISTORY OF THE FEDERAL ANTITRUST LAWS AND RELATED STATUTES 1094 (Earl W. Kintner ed., 1978).

¹⁴³ *N. Pac. Ry. Co.*, 356 U.S. at 7.

¹⁴⁴ *Id.*

¹⁴⁵ Linda Greenhouse, *Antitrust Bar to ‘Tying’ of Sales Eased By Court*, N.Y. TIMES, Mar. 28, 1984, available at <http://query.nytimes.com/gst/fullpage.html?res=980DEEDD1E39F93BA15750C0A962948260&sec=health&spon=&pagewanted=all> (discussing the Supreme Court’s decision in *Jefferson Parish*).

sufficient anticompetitive effects to be rendered unlawful no matter what justification a firm might have for it.¹⁴⁶

IV. Law of the Tie

Although tying arrangements abound in today's marketplace, some of these arrangements have characteristics that make them so unreasonable and so anticompetitive that federal courts deem them unlawful. Most federal courts employ a "rule of reason" analysis to most vertical restraints to determine whether a firm's anticompetitive behavior outweighs any pro-competitive justifications for that behavior.¹⁴⁷ In a rule of reason analysis, courts first require the plaintiff to prove that the defendant's actions are actually causing detrimental, anticompetitive effects.¹⁴⁸ The defendant then has a chance to prove that the practice actually benefits competition more than it harms competition.¹⁴⁹ If the defendant succeeds, the plaintiff has one last chance to prevail by showing that the defendant could achieve the same result with "less restrictive alternatives."¹⁵⁰ Under this analysis, the defendant usually wins.¹⁵¹

In the case of tying arrangements, courts first employ a "modified *per se*" or "*quasi per se*" analysis.¹⁵² In a normal "*per se*" analysis, merely proving the existence of a tying arrangement would render it unlawful; instead, the "modified" approach requires a defendant to prove several factors regarding the defendant's market power and the potential effects of the tying arrangement.¹⁵³ The modified *per se* approach departs from the traditional rule of reason at this point;¹⁵⁴ once the plaintiff has proven these elements, the

¹⁴⁶ See *infra* Part IV (discussing the steps in the *per se* test).

¹⁴⁷ Monroe, *supra* note 89, at 436.

¹⁴⁸ Alan J. Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 U. ILL. L. REV. 77, 79 (2003).

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 79-80.

¹⁵¹ See Monroe, *supra* note 89, at 436 n.17.

¹⁵² Devlin, *supra* note 113, at 529.

¹⁵³ Victor H. Kramer, *The Supreme Court and Tying Arrangements: Antitrust as History*, 69 MINN. L. REV. 1013, 1051-53 (1985).

¹⁵⁴ See Monroe, *supra* note 89, at 441 (noting that the analysis mirrors the rule of reason until the elements have been established).

defendant cannot argue that the tying arrangement actually does not have anticompetitive effects or that it has pro-competitive effects that outweigh any anticompetitive effects.¹⁵⁵ Instead, these tying arrangements pose such an “unacceptable risk of stifling competition” that federal courts do not charge the plaintiff with making an expensive, burdensome inquiry into actual market effects.¹⁵⁶

The Seventh Circuit has interpreted the Supreme Court’s modified *per se* approach to require proof of the following elements before deeming a tying arrangement unlawful: (1) a tying arrangement must exist between two distinct products,¹⁵⁷ (2) the defendant must have “sufficient economic power in the tying market to appreciably restrain free competition in the market for the tied product,”¹⁵⁸ (3) the arrangement must affect a “not insubstantial” amount of interstate commerce,¹⁵⁹ and (4) the tying company must have an economic interest in the sales of the tied seller.¹⁶⁰ The fourth prong of the analysis is satisfied whenever the tying firm gains some economic benefit from the sale of the tied product.¹⁶¹ This section will explain the remaining requirements in turn.

A. When Does a Tying Arrangement Exist Between Two Distinct Products?

To prove a claim of a *per se* unlawful tying arrangement in the Seventh Circuit, the plaintiff must first show that a tying arrangement exists between two distinct products.¹⁶² This threshold question actually involves two separate questions: (1) whether the

¹⁵⁵ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 34 (O’Connor, J., concurring).

¹⁵⁶ *Id.* at 9, 16 n.25.

¹⁵⁷ *Reifert*, 450 F.3d at 316.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* (citing *Moore v. Matthews & Co.*, 550 F.2d 1207, 1212 (9th Cir. 1977)).

¹⁶⁰ *Ohio-Sealy Mattress Mfg. Co. v. Sealy, Inc.*, 585 F.2d 821, 835 (7th Cir. 1978).

¹⁶¹ *Id.*

¹⁶² *Reifert*, 450 F.3d at 316.

sale actually involves two products,¹⁶³ and (2) whether those products are actually “tied” by the sale.¹⁶⁴

While the question of whether two distinct products exist appears to be a “bright line” question, the distinction between Item A and Item B is not always obvious. If, for example, a merchant refused to sell a toaster oven to a consumer unless the consumer also purchased a compact disc, no one would question that the merchant tied two distinct products together. By the same token, courts would not recognize a tying arrangement in the shoe industry just because merchants refuse to sell a left shoe and a right shoe separately. However, the question becomes murkier when courts must decide whether anesthetic services are distinct products in relation to other services a hospital offers during the same surgery,¹⁶⁵ or whether an agreement to provide parts and service is a distinct product tied to the sale of photographic equipment.¹⁶⁶

To answer the question, federal courts focus on the nature of the market in which the products are sold.¹⁶⁷ Whether a packaged sale is one product or two or more distinct products depends on the nature of the demand in a particular market, not the way the products function together.¹⁶⁸ Even if Item B cannot function without Item A, the two items can constitute distinct products in antitrust analysis.¹⁶⁹ In *Eastman Kodak Co. v. Image Technical Services, Inc.*, the Supreme Court noted that computers and software, cars and tires and cameras and film could all be distinct products even though one product had little use without the other.¹⁷⁰ The true question is

¹⁶³ *Eastman Kodak Co.*, 504 U.S. at 462.

¹⁶⁴ *Sargent-Welch Scientific Co. v. Ventron Corp.*, 567 F.2d 701, 708 (7th Cir. 1977).

¹⁶⁵ *See Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 8.

¹⁶⁶ *See Eastman Kodak Co.*, 504 U.S. at 462-63.

¹⁶⁷ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 17.

¹⁶⁸ *Id.* at 19.

¹⁶⁹ *See Carbice Corp. v. Am. Patents Corp.*, 283 U.S. 27, 33 (1931) (ice cream packaging transports and coolant); *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661, 667 (1944) (in which the sale of a heating system and a “stoker switch” for that heating system constituted an unlawful tying arrangement).

¹⁷⁰ *Eastman Kodak Co.*, 504 U.S. at 463.

whether sufficient consumer demand exists to make it efficient for a firm to sell the two products separately.¹⁷¹

The answer also depends on whether consumers normally have the option to purchase the products separately or would at least expect to be able to make the purchases separately.¹⁷² In *Eastman Kodak*, the Court found that equipment and a service plan for that equipment were two separate products because consumers also had the option to purchase parts and service plans from independent service organizations.¹⁷³ Likewise, in *Jefferson Parish*, the Court found that anesthesia services were a distinct product from the rest of the services a hospital offered with its surgeries because patients ordinarily had the option of hiring their own anesthetist.¹⁷⁴ So although Item A might be necessary to use Item B, the products can still be distinct.

After finding that the sale involves two distinct products, a federal court must next determine that the seller actually “tied” the products together.¹⁷⁵ For the court to make this determination the plaintiff must provide evidence of an agreement between the seller and the buyer in which the buyer agrees to purchase Item B in exchange for the ability to purchase item A.¹⁷⁶ However, this agreement may be either express or implied.¹⁷⁷ Even if a contract does not contain a specific clause requiring the purchaser to perform an action or to refrain from performing an action, the agreement can exist when the terms of the contract have the practical effect of foreclosing the purchaser from performing or failing to perform that action.¹⁷⁸ As such, the question of whether Item A can function without Item B comes into play in this part of the analysis rather than the analysis of whether the two items constitute distinct products or a single functional package. Whether express or implied, a tie exists

¹⁷¹ *Id.* at 462.

¹⁷² *Id.* at 463; *see also Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 23.

¹⁷³ *Eastman Kodak Co.*, 504 U.S. at 462-63.

¹⁷⁴ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 23.

¹⁷⁵ *Sargent-Welch Scientific Co.*, 567 F.2d at 708.

¹⁷⁶ *Id.*

¹⁷⁷ *See Tampa Elec. Co.*, 365 U.S. at 326.

¹⁷⁸ *Id.*

when the seller effectively coerces a buyer into purchasing the two distinct products.¹⁷⁹

B. When Does a Seller Exercise Sufficient Economic Power To Appreciably Restrain Free Competition in The Tied Market?

Once the Seventh Circuit has established that a tying arrangement exists, the court must begin its inquiry into whether the arrangement is anticompetitive.¹⁸⁰ The Seventh Circuit poses the question as whether the seller has “sufficient economic power in the tying market to appreciably restrain free competition in the market for the tied product.”¹⁸¹ This inquiry departs from the typical “rule of reason” analysis because it searches for the “potential” for anticompetitive effects, not proof that those effects exist.¹⁸² As such, the inquiry breaks down into two questions examining the likelihood of anticompetitive conduct based on the characteristics of the business entity and the market in which it operates.¹⁸³ To determine whether this likelihood exists, the Seventh Circuit must first ask whether the tying firm has “sufficient economic power,” commonly referred to as market power.¹⁸⁴

If the first step of the Seventh Circuit’s inquiry answers the question of whether a tying arrangement exists, the second step begins to answer the question: “so what?”¹⁸⁵ Recall that in the example of the sale of flour tied to the sale of sugar, the tying arrangement had no anticompetitive effects in part because the grocer

¹⁷⁹ *Times-Picayune Publ’g Co.*, 345 U.S. at 614

¹⁸⁰ *See N. Pac. Ry. Co.*, 356 U.S. at 6 (“Of course where the seller has no control or dominance over the tying product so that it does not represent an effectual weapon to pressure buyers into taking the tied item any restraint of trade attributable to such tying arrangements would obviously be insignificant at most.”).

¹⁸¹ *Id.*

¹⁸² *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 16.

¹⁸³ *See id.* at 16 n.25 (discussing the reasons why courts forego burdensome examinations of actual market effects in tying arrangement cases).

¹⁸⁴ *Eastman Kodak Co.*, 504 U.S. at 464.

¹⁸⁵ *See Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 25 (noting that packaged sales themselves are not inherently anticompetitive). A court must examine the effects of the tying arrangement to make that determination. *Id.* (indicating that an element of coercion must be present).

had no power to force consumers to purchase the tied products.¹⁸⁶ The question of whether a firm has market power can accurately be characterized as whether the firm has “leverage” to coerce consumers into making a purchase that they would not normally make in a competitive market.¹⁸⁷ More recently, the Supreme Court has posed the question of whether a single seller has the power to raise price and restrict output, actions that would normally have an unfavorable impact on sales in a competitive market.¹⁸⁸

The Supreme Court, focusing on the realities of the market in question,¹⁸⁹ has formulated several different tests to determine whether a tying firm has sufficient market power. The Court infers that a firm has sufficient economic power when the firm controls a significant share of the market.¹⁹⁰ Even if the firm does not control enough market share under the first test, the firm may still have sufficient leverage if the firm offers a unique product that competitors cannot offer.¹⁹¹

1. Defining “Sufficient Economic Power” Through Market Share

Although federal courts use market share, they have not set a minimum amount of market share that a tying firm must control to have sufficient economic power. The Supreme Court has made clear that a tying firm does not need to control a monopoly in the tied market.¹⁹² However, the Court has referred to the requisite market

¹⁸⁶ See *supra* Part II.C.2

¹⁸⁷ See *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 14 n.20 ; Roger D. Blair & Jeffrey Finci, *The Individual Coercion Doctrine and Tying Arrangements: An Economic Analysis*, 10 FLA. ST. U. L. REV. 531, 536-37 (1983).

¹⁸⁸ *Eastman Kodak Co.*, 504 U.S. at 464.

¹⁸⁹ *Id.* at 467.

¹⁹⁰ *Id.* at 464.

¹⁹¹ *Fortner Enter., Inc.*, 394 U.S. at 505.

¹⁹² *N. Pac. Ry. Co.*, 356 U.S. at 11 (“While there is some language in the *Times-Picayune* opinion which speaks of ‘monopoly power’ or ‘dominance’ over the tying product as a necessary precondition for application of the rule of *per se* unreasonableness to tying arrangements, we do not construe this general language as requiring anything more than sufficient economic power to impose an appreciable restraint on free competition in the tied product.”).

share as a “predominant” share of the market.¹⁹³ This analysis presented no problems in *International Salt* because the tying firm was the largest producer of salt in the country.¹⁹⁴ The dominance may also occur locally. In *Reifert*, the Seventh Circuit found sufficient economic power in a real estate association that controlled access to a marketed property list essential to individual realtors in the area.¹⁹⁵ In *Jefferson Parish*, in contrast, a hospital servicing thirty percent of the population of Jefferson Parish in Louisiana failed to have sufficient market share;¹⁹⁶ for the Court, the fact that seventy percent of residents obtained their medical services elsewhere showed that the hospital lacked the market power to coerce consumers into accepting its tying arrangement.¹⁹⁷

Beyond market share, previous Supreme Court cases suggest that the volume of sales a firm makes can also allow a court to conclude that the firm has sufficient economic power. In *International Salt*, the Court cited the large volume of business conducted by the defendant as one justification for applying a *per se* rule to its tying arrangement.¹⁹⁸ In *Northern Pacific Railroad*, the Court applied the *per se* test to a railroad company because the company engaged in large number of separate tying arrangements involving millions of acres of land.¹⁹⁹ A reliance on sales volume also explains the Court’s seemingly anomalous conclusion in *United States Steel Corp. v. Fortner Enterprises*, in which a credit firm

¹⁹³ *Eastman Kodak Co.*, 504 U.S. at 464.

¹⁹⁴ *See Int’l Salt Co.*, 332 U.S. at 394 (criticizing a salt company for tying its patented salt machines to the purchase of its unpatented salt products).

¹⁹⁵ *Reifert*, 450 F.3d at 317.

¹⁹⁶ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 26-27.

¹⁹⁷ *Id.*; *but see Will v. Comprehensive Accounting Corp.*, 776 F.2d 665, 672 (7th Cir. 1985) (noting that federal vertical restraint guidelines treated tying arrangements involving less than 30% market share as acceptable).

¹⁹⁸ *Int’l Salt Co.*, 332 U.S. at 396 (“The volume of business affected by these contracts cannot be said to be insignificant or insubstantial and the tendency of the arrangement to accomplishment of monopoly seems obvious.”).

¹⁹⁹ *N. Pac. Ry. Co.*, 356 U.S. at 7-8 (“The very existence of this host of tying arrangements is itself compelling evidence of the defendant’s great power, at least where, as here, no other explanation has been offered for the existence of these restraints.”).

owned by one of the world's largest corporations was found to not have sufficient market share to justify a *per se* analysis.²⁰⁰

2. Defining “Sufficient Economic Power” Through Unique, Desirable Products

Federal courts also infer market power from a firm's ability to offer a unique product that its competitors are unable, rather than unwilling, to offer.²⁰¹ The modern “unique product” approach combines the elements of two distinct indicators of market power that the Supreme Court focused on in the past: a firm's control over a product that people desire,²⁰² and a firm's control over patented products, copyrighted materials, or products that the firm's competitors could not otherwise offer.²⁰³ Although recent Supreme Court decisions have reduced the importance of the existence of patents in tying products,²⁰⁴ it is unclear what effect this has had on the unique product approach as a whole.

The Supreme Court demonstrated the “desirability” factor in a number of cases involving film distribution.²⁰⁵ In *United States v. Loew's, Inc.*, the Supreme Court struck down a tying arrangement in which a movie studio refused to grant television networks licenses to air its more popular films unless the networks also agreed to license less popular films.²⁰⁶ Without referencing the theater chain's market share, the Court concluded that it could infer market power through Loew's control over products that consumers desired.²⁰⁷ The Court's willingness to find that such an arrangement constituted an unlawful tie stems from the theory that the popularity of one product, a

²⁰⁰ *U.S. Steel Corp. v. Fortner Enter., Inc.*, 429 U.S. 610, 611 (1977).

²⁰¹ *See Blair & Finci, supra* note 187, at 541-44.

²⁰² *Id.* at 541.

²⁰³ *U.S. Steel Corp.*, 429 U.S. at 621-22.

²⁰⁴ *Illinois Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006).

²⁰⁵ *Paramount Pictures, Inc.*, 334 U.S. at 131; *Loew's, Inc.*, 371 U.S. at 38.

²⁰⁶ *Loew's, Inc.*, 371 U.S. at 48.

²⁰⁷ *Id.* at 45 (“Even absent a showing of market dominance, the crucial economic power may be inferred from the tying product's desirability to consumers or from uniqueness in its attributes.”).

successful film, should not be used as leverage to give a competitive advantage to a distinct, inferior product.²⁰⁸

But desirability alone is not enough to show sufficient economic power; consumers desire sugar, but a tying arrangement between sugar and flour means nothing if other grocery stores can provide what consumers desire. Beyond being desirable, the tying product must be unique in that other firms cannot offer it.²⁰⁹ The Supreme Court insists on inability, not unwillingness. In *United States Steel Corporation v. Fortner Enterprises, Inc.*, the Court dismissed an argument that a credit corporation offered a unique loan package because the corporation merely provided financing terms that other corporations were unwilling to give, not unable to give.²¹⁰ In contrast, the successful movies tied to inferior movies in *Loew's* fit the definition of unique products because they are not fungible and other movie companies cannot provide a functional equivalent of the product;²¹¹ for example, a television network seeking to license *Casablanca* would not settle for an "equivalent" movie about a doomed romance set in Marrakech.

In earlier cases, the Supreme Court held that a patent conferred a "virtual monopoly" sufficient to presume that the firm holding the patent had sufficient economic power in a tying arrangement.²¹² Earlier Courts felt that tying firms tied unpatented goods to patented goods as a means of extending the firm's virtual monopoly on the patented item in a manner inconsistent with patent law.²¹³ Under this theory, a tying firm misused the rights granted to

²⁰⁸ See *Paramount Pictures, Inc.*, 334 U.S. at 158 ("[T]he requirements that all be taken if one is desired increases the market for some. Each stands not on its own footing but in whole or in part on the appeal which another film may have.").

²⁰⁹ *Fortner Enter., Inc.*, 394 U.S. at 505 n.2 ("Uniqueness confers economic power only when other competitors are in some way prevented from offering the distinctive product themselves."); see also Blair & Finci, *supra* note 187, at 287.

²¹⁰ *U.S. Steel Corp.*, 429 U.S. at 621-22.

²¹¹ See *Loew's, Inc.*, 371 U.S. at 48 (holding that a movie studio had a monopoly over the sale of each of its feature films because each film "was unique in itself" and "varied in audience appeal" and was not "fungible," meaning non-interchangeable). This would allow a movie studio to "forc[e] a television station which wants "Gone With The Wind" to take "Getting Gertie's Garter" as well is taking undue advantage of the fact that to television as well as motion picture viewers there is but one "Gone With The Wind." *Id.* at 48 n.6.

²¹² *Illinois Tool Works Inc.*, 547 U.S. at 33-34 (discussing federal precedent).

²¹³ *Loew's, Inc.*, 371 U.S. at 46 ("Since one of the objectives of the patent laws

it for innovating in one market in order to monopolize sales in a market in which the firm did not innovate.²¹⁴ In 2006, the Court expressly held that the presence of a patent by itself is no longer proof of sufficient economic power.²¹⁵ Although previous patent cases refused to consider whether competitors offered products that could perform the equivalent of the patented, tying product,²¹⁶ it now appears that the availability of alternatives plays a role in determining whether the unique nature of a product confers sufficient economic power under the *per se* analysis.

C. When Does the Arrangement Have the Potential to Affect a “Not Insubstantial” Amount of Commerce?

After determining that a firm with sufficient economic power has imposed a tying arrangement on consumers, the court must then determine whether this action has the *potential* to impact a “not insubstantial” amount of commerce.²¹⁷ First, courts must establish the exact type of commerce – goods, merchandise, service, or some variant – affected by the tying arrangement.²¹⁸ Then, the court must define the market area – local, national, or global – in which the seller operates.²¹⁹ Finally, courts determine whether the arrangement has the potential to foreclose a substantial volume of commerce in that market.²²⁰

is to reward uniqueness, the principle of these cases was carried over into antitrust law on the theory that the existence of a valid patent on the tying product, without more, establishes a distinctiveness sufficient to conclude that any tying arrangement involving the patented product would have anticompetitive consequences.”).

²¹⁴ *Id.*

²¹⁵ *Illinois Tool Works Inc.*, 547 U.S. at 42-43.

²¹⁶ *Int’l Salt Co.*, 332 U.S. at 398.

²¹⁷ Christopher R. Leslie, *Unilaterally Imposed Tying Arrangements and Antitrust’s Concerted Action Requirement*, 60 OHIO ST. L.J. 1773, 1816 (1999). At one point the courts interpreted the Sherman Act as dealing with substantial dollar volume and the Clayton Act as dealing with substantial impact on competition. *Id.* The two have since merged. *Id.* at 1815-16 (arguing that courts have impermissibly used the Sherman Act to address arrangements reserved for the Clayton Act).

²¹⁸ *Tampa Elec. Co.*, 365 U.S. at 327.

²¹⁹ *Id.*

²²⁰ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 16.

The Seventh Circuit reframes the first two questions by asking whether there is more than one competitor in the relevant market in which the tying arrangement exists.²²¹ For goods and services, the Seventh Circuit determines whether they are part of the same market by asking whether the goods and services are “good substitutes” for one another.²²² The products are good substitutes when they are reasonably interchangeable.²²³ In the Seventh Circuit, plaintiffs must present economic evidence proving that the goods are reasonably interchangeable.²²⁴ The provisions of actual data and reasonable analysis are necessary because the Seventh Circuit is unwilling to accept that products appearing to be reasonable substitutes to the naked eye are actually reasonable substitutes.²²⁵ After defining the relevant market, courts look to whether more than one competitor exists for that market. In this arena, the Seventh Circuit requires more than superficial similarities. In *Reifert*, the Seventh Circuit found that a local real estate marketers’ association had no competition in its relevant market even though more than a dozen similar associations existed.²²⁶ Those organizations dealt with a narrower aspect of the real estate market or only opened themselves up to members of certain nationalities, thus disqualifying them as competitors in the same market.²²⁷

Once plaintiffs have proven that the tying firm has at least one competitor in the relevant market, the Seventh Circuit then determines whether the firm has the potential to affect a “not insubstantial” amount of commerce. Courts often make this determination based on the volume of sales the tying firm generates.²²⁸ The question is whether the sales are significant, with the requisite dollar amount varying from court to court, or whether the volume of sales is *de minimus*.²²⁹ This method fits with the

²²¹ *Reifert*, 450 F.3d at 318.

²²² *Id.*

²²³ *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962).

²²⁴ *Menasha Corp. v. News Am. Mktg. In-Store, Inc.*, 354 F.3d. 661, 664 (7th Cir. 2004).

²²⁵ *Reifert*, 450 F.3d at 318.

²²⁶ *Id.* at 318-19.

²²⁷ *Id.* at 319-20.

²²⁸ *Johnson*, *supra* note 5, at Basic Requirements.

²²⁹ *Id.*

concept of a “modified *per se*” approach because it merely examines the amount of sales rather than making a burdensome inquiry into the actual effect of those sales on the market.²³⁰ Most Supreme Court decisions reference the volume of commerce with regard to the amount of commerce in which the tying firm is engaged.²³¹ Court decisions also reference the volume of commerce that the tying arrangement would affect. In *IBM v. United States*, the Supreme Court invalidated a tying arrangement between early computers and punch card sales based in part on the volume of commerce in which IBM’s competitors engaged.²³² IBM’s tying arrangement stood to affect nineteen percent of the punch card market, meaning that it would affect the sales of 600,000,000 punch cards.²³³

V. Has AT&T Created a *Per Se* Unlawful Tying Arrangement in the Smartphone Market?

A tying arrangement involving typical mobile handsets is neither unreasonable nor illegal. For most mobile handsets, a cellular service provider’s attempted coercion is nothing more than a grocer’s insistence that customers purchase a bag of flour if they want to buy a bag of sugar.²³⁴ Because consumers can look elsewhere to acquire the exact same tying product, the cell phone, and an equivalent tied product, the cellular service, a tying firm lacks leverage.²³⁵ The question becomes closer with smartphones, and the iPhone in particular because many smartphones are unique and unavailable elsewhere. However, upon applying the Seventh Circuit’s version of the modified *per se* test, it becomes clear that even these exclusivity arrangements are not unlawful because AT&T lacks sufficient economic power in the smartphone market and probably cannot affect a “not insubstantial” amount of commerce.²³⁶

²³⁰ See *Jefferson Parish Hosp. Dist. No.2*, 466 U.S. at 16 n.25 (discussing the justification of the *per se* approach).

²³¹ *Eastman Kodak Co.*, 504 U.S. at 462.

²³² *Int’l Bus. Machs. Corp. v. United States*, 298 U.S. 131, 135-36 (1936).

²³³ *Id.* at 136.

²³⁴ See *supra* notes 143 - 146 and accompanying text (discussing the sugar example).

²³⁵ See *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at, 11-12 (discussing leverage theory).

²³⁶ See *infra* Part V.C-D (outlining why AT&T lacks sufficient economic

A. AT&T Has Tied the Sales of the iPhone to Sales of Its Cellular Service.

AT&T's exclusivity contract affirmatively answers the Seventh Circuit's threshold question of whether a tying arrangement exists between two distinct products.²³⁷ Rather than requiring that the products be sold as two parts of one functional package, the market allows cellular service and mobile handsets to be sold separately.²³⁸ While it is true that many consumers purchase their phones in conjunction with a cellular service contract,²³⁹ most providers also sell mobile handsets independently.²⁴⁰ The iPhone itself is available for sale in Apple stores and online without signing a contract with AT&T.²⁴¹ Furthermore, Nokia, Sony-Ericsson, Motorola, RIM, and other makers of mobile handsets are not cellular service providers; the market allows the products to be sold separately. A mobile handset cannot perform voice calls, text messaging, web browsing, or any of its traditional functions without cellular service, but two products can be distinct even if one cannot function without the other.²⁴² Just as hospital patients are accustomed to having the option of bringing in their own anesthesiologist if they are not happy with the one that the hospital offers,²⁴³ consumers are accustomed to using their own mobile handset if they are not happy with the products offered by a cellular

power and cannot affect a substantial amount of commerce).

²³⁷ See *Eastman Kodak Co.*, 504 U.S. at 462 (discussing whether two products exist).

²³⁸ See *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 17 (product analysis focuses on the market and demand).

²³⁹ See Farivar, *supra* note 53 (discussing the cellular service industry).

²⁴⁰ In-store sales and online stores typically set out the price for the phone itself, followed by the discounted price consumers receive when they purchase the phone in conjunction with a contract. Alternatively, electronics retailers like Best Buy sell mobile handsets independently. See Best Buy Inc.'s online store, <http://www.bestbuy.com/site//olspage.jsp?id=pcmcat146100050026&type=category> (last visited April 14, 2008).

²⁴¹ See Apple, Inc.'s online store, <http://store.apple.com/1-800-MY-APPLE/WebObjects/AppleStore> (last visited April 14, 2008).

²⁴² See *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 19.

²⁴³ See *id.* at 22 (noting that patients and doctors can request specific anesthesiologists).

2008]

Smartphone Tying Arrangements

471

service provider.²⁴⁴ For the Seventh Circuit's *per se* tying arrangement analysis, mobile handsets and cellular service are two distinct products.

Furthermore, a tying arrangement plainly exists between sales of AT&T's cellular service and Apple's iPhone. For a tying arrangement to exist, the seller must have created conditions in which a consumer cannot purchase Item A without purchasing Item B as well.²⁴⁵ For iPhone sales in AT&T stores, this agreement is express because consumers cannot purchase the iPhone from that location without signing a two-year contract with AT&T.²⁴⁶ However, a tying arrangement can exist implicitly as well.²⁴⁷ Even when consumers buy an iPhone without visiting an AT&T store, they cannot use any of its features without activating the product, and they cannot activate the product unless they sign a two-year contract with AT&T.²⁴⁸ Because AT&T has created a system in which the iPhone cannot function without activation and activation can only be obtained by purchasing AT&T cellular service rather than any competitor's service, the company has tied the two products together.²⁴⁹

B. AT&T Derives Economic Benefit From the Sale of the iPhone

To find a tying arrangement *per se* unlawful, the Seventh Circuit requires that the tying firm gain some economic benefit from sales of the tied products.²⁵⁰ AT&T derives economic benefit from the sale of both Apple's iPhone and the sale of its cellular service plan. First, AT&T does not subsidize the cost of the iPhone. Instead, AT&T pockets roughly ten percent of the revenue from sales of the

²⁴⁴ See *Eastman Kodak Co.*, 504 U.S. at 463 (consumer's view of the products shapes whether they are distinct or the same).

²⁴⁵ *Sargent-Welch Scientific Co.*, 567 F.2d at 708.

²⁴⁶ See Apple, Inc., *Rate Plans for iPhone*, <http://www.apple.com/iphone/easyssetup/rateplans.html> (last viewed April 14, 2008).

²⁴⁷ See *Tampa Elec. Co.*, 365 U.S. at 325-26.

²⁴⁸ Apple, Inc., *Rate Plans for iPhone*, <http://www.apple.com/iphone/easyssetup/rateplans.html> (last viewed April 14, 2008) ("Minimum new 2-year wireless service plan and activation fee required to activate iPhone features, including iPod; plans are subject to AT&T credit approval.").

²⁴⁹ See *supra* notes 177 - 179 and accompanying text.

²⁵⁰ *Ohio-Sealy Mattress Mfg. Co.*, 585 F.2d at 835.

iPhone hardware from its retail locations and its online store.²⁵¹ Furthermore, the exclusivity of the iPhone has affected AT&T's bottom line. Apple released the iPhone during the third quarter of AT&T's 2007 fiscal year. During that quarter, AT&T's wireless subscriptions grew 47 percent over the same quarter in 2006, and the company added approximately two million subscribers.²⁵² AT&T's market share increased during the third quarter of 2007 even though an estimated four out of five Americans already had some form of cellular service.²⁵³ Furthermore, AT&T activated 1.1 million iPhones, 40 percent of which belonged to subscribers who were new to AT&T's service.²⁵⁴

Apple also has an economic interest in the tying arrangement. The agreement between Apple and AT&T allowed Apple to get its foot into the door of the competitive cell phone market and saved the company money by requiring AT&T to sink millions into developing a "visual voice mail" system.²⁵⁵ Apple also makes an \$80 profit for every iPhone sold.²⁵⁶ Finally, Apple takes an estimated \$10 per month from every AT&T iPhone subscriber's contract, providing an estimated \$240 profit from the two-year contract signed to activate the iPhone.²⁵⁷ Each firm generates intertwined revenue from the sale of each product.

C. AT&T Probably Lacks the Market Power to Impose a Tie Upon Consumers

Whereas the first two prongs are fairly clear cut, the question of whether AT&T has sufficient economic power to appreciably restrain competition in the market is less clear.²⁵⁸ In theory, AT&T could have market power because it controls a unique product that

²⁵¹ Vogelstein, *supra* note 18, at 1.

²⁵² Laurie J. Flynn, *AT&T Profit Surges 41% With Help From iPhone*, N.Y. TIMES, Oct. 24, 2007, available at <http://www.nytimes.com/2007/10/24/business/24phone.html>.

²⁵³ *Id.*

²⁵⁴ *Id.*

²⁵⁵ Vogelstein, *supra* note 18, at 1.

²⁵⁶ *Id.*

²⁵⁷ *Id.*

²⁵⁸ *See Reifert*, 450 F.3d at 316.

other firms cannot sell due to its exclusivity contract.²⁵⁹ In the past, the fact that AT&T exercised control over a patented product would dispose of the issue.²⁶⁰ Before 2006, courts could infer sufficient market power based on control over a patented product on the theory that a patent proved that the item was unique.²⁶¹ Many of the iPhone's components are patented, and Apple has the exclusive right to produce the iPhone. By logical extension, AT&T's locking arrangement and five-year exclusivity contract gives it functional control over the product.²⁶²

However, a mobile handset is not unique in the way a film is unique; it is possible for a consumer to have the functional equivalent of an iPhone in a way that a consumer cannot obtain the functional equivalent of *Casablanca*. In the uniqueness inquiry, a firm must be unable, not unwilling, to provide the unique product.²⁶³ In theory, a competitor could not offer products patented by a tying firm, but the Supreme Court's decision in *Illinois Tool Works* signals a clear willingness to examine functional alternatives in the tying market.²⁶⁴ Whereas the Court in *International Salt* did not ask whether functional equivalents to the Lixator and Saltomat devices existed, today they might. The iPhone is not the only mobile handset capable of browsing the internet, providing a keyboard for texting and typing, playing music, playing movies, or running applications on an operating system. Other companies are both willing and able to offer a functional alternative; today, this could make the difference between *per se* unlawfulness and a rule of reason analysis.²⁶⁵

Also, AT&T lacks enough market share to have economic power sufficient to produce the kind of anticompetitive effects the *per se* test targets. While AT&T does not need to have a monopoly market share, it does need to control a sufficient amount of the market to allow it to raise prices, decrease output, coerce consumers,

²⁵⁹ See *Fortner Enter., Inc.*, 394 U.S. at 505 (discussing the role of uniqueness in marketing products).

²⁶⁰ *Paramount Pictures, Inc.*, 334 U.S. at 143; *Loew's, Inc.*, 371 U.S. at 45-46.

²⁶¹ *Illinois Tool Works Inc.*, 547 U.S. at 37.

²⁶² See Vogelstein, *supra* note 18, at 1.

²⁶³ See Blair & Finci, *supra* note 187, at 541-44.

²⁶⁴ *Illinois Tool Works Inc.*, 547 U.S. at 28.

²⁶⁵ A majority of the Seventh Circuit has indicated that it reads *Illinois Tool Works* as a mandate to consider all tying arrangements involving patented products under a rule of reason analysis. *Reifert*, 450 F.3d at 317 n.2.

and do anything else that they would not otherwise be able to do in a competitive market.²⁶⁶ In this case, the tying arrangement affects an insignificant portion of the general mobile handset market. When the market is narrowed to smart phone sales in the United States, the iPhone still only controls twenty-eight percent of the market share by Apple's best estimates.²⁶⁷ In *Jefferson Parish*, a hospital servicing thirty percent of the population of a county in New Orleans lacked sufficient market share;²⁶⁸ the result is similar here. Just as seventy percent of hospital patients could and did seek services elsewhere,²⁶⁹ at least seventy percent of American smart phone customers use different products. Under current "market power" analysis in the Seventh Circuit, AT&T lacks the market power to produce sufficient anticompetitive effects to trigger *per se* unlawfulness.

D. The Tying Arrangement Affects an Insubstantial Amount of Commerce

Even assuming the Seventh Circuit found market power in the arrangement, it is doubtful that the arrangement would affect the "not insubstantial" amount of commerce required under the *per se* analysis.²⁷⁰ First, the Seventh Circuit asks whether there is more than one competitor in the market for the tied good.²⁷¹ Given the number of cellular service providers that offer smart phones, the answer to this question is obvious. Because various providers offer similar plans for voice and data transmission over a network, the various cellular service providers all offer goods and services that are reasonably interchangeable with one another;²⁷² as such, they fit the Seventh Circuit's definition of "good substitutes."²⁷³

The likelihood that the tying arrangement has the potential to affect a "not insubstantial" amount of commerce depends on the way the court defines type of product sold and the market in which it is

²⁶⁶ *Eastman Kodak Co.*, 504 U.S. at 464.

²⁶⁷ Guglielmo, *supra* note 71.

²⁶⁸ *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 26-27.

²⁶⁹ *Id.*

²⁷⁰ *See Reifert*, 450 F.3d at 316.

²⁷¹ *Id.* at 318.

²⁷² *See id.*

²⁷³ *Id.* at 318; *see also Brown Shoe Co.*, 370 U.S. at 325.

sold.²⁷⁴ It is possible that the court will define the relevant market as the mobile handset market generally. If so, and if Apple meets its goal of shipping ten million iPhones worldwide by the end of 2008, then the tying arrangement will still affect less than one percent of the mobile handset market share.²⁷⁵ Under this analysis, the amount of commerce the tying arrangement affects would not be substantial.

However, the Seventh Circuit could find that the tying arrangement affects a “not insubstantial” amount of commerce in the smart phone market. By defining the goods involved as smart phones and defining the market as the national rather than global market, the Seventh Circuit would have to deal with an arrangement that has taken up twenty-eight percent of the smart phone market share in fewer than two years.²⁷⁶ At the very least, this translates to several million separate iPhone sales tied to contracts for cell phone service each year. Because federal courts determine the substantiality of the commerce based on sales volume,²⁷⁷ this could tip the scales against the legality of the tying arrangement. In *Northern Pacific Railway*, for example, the Supreme Court found that a railroad company affected a “not insubstantial” amount of commerce because it created numerous contracts involving millions of acres of land.²⁷⁸ A contract for the sale of a phone and cellular service might not be given the same import as a contract for the sale of land, though; a contract for the sale of land involves a unique item that costs considerably more than a phone and could involve a certain level of negotiation, whereas the AT&T terms of service are boilerplate and the price is non-negotiable.²⁷⁹ Analyzing the amount of commerce affected in the narrower smartphone market may lead a court to conclude that the arrangement affects a “not insubstantial” amount of commerce, but such an outcome is far from certain.

²⁷⁴ See *Tampa Elec. Co.*, 365 U.S. at 327.

²⁷⁵ See Wendy Kaufman, *Apple Stock Gets Boost From iPhone Hype*, NPR, June 18, 2007, available at <http://www.npr.org/templates/story/story.php?storyId=11151839>.

²⁷⁶ See Guglielmo, *supra* note 71.

²⁷⁷ *Eastman Kodak Co.*, 504 U.S. at 462.

²⁷⁸ *N. Pac. Ry. Co.*, 356 U.S. at 7-8.

²⁷⁹ See Apple Inc.’s Website and the iPhone’s terms of service, http://www.apple.com/legal/iphone/us/terms/service_att.html (last viewed April 14, 2008).

VI. Conclusion

At present, tying arrangements involving the smartphone market, much like tying arrangements involving the mobile handset market in general, lack the ability to produce the anticompetitive effects that the Sherman Act and Clayton Act were created to address. While the iPhone's business arrangement may prove detrimental to consumers in the long run, antitrust laws ultimately focus on competition, not consumers. No matter the harm to individual customers, AT&T's deal with Apple presently lacks the ability to harm competitors. Even if AT&T has the power to make consumers jump through hoops to get the exact model of smartphone they want, the company lacks the ability to prevent competitors from offering an equivalent phone on similar or better terms. The analysis might change if the iPhone's market share continues its rapid ascent, but at the moment no cellular service provider has sufficient economic power to harm its competitors with a tying arrangement.