THE UNFAIR TRADE PRACTICE OF HIRING ILLEGAL ALIEN WORKERS

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Businesses or employers that knowingly hire illegal aliens are violating the law, but who is there to enforce such laws? The federal government is overwhelmed. In the case of those businesses that gain an unfair advantage by hiring illegal aliens for below-market wages, often without paying taxes, perhaps it is time we gave their direct competitors the ability to sue for unfair competition. This would allow those businesses put at a competitive disadvantage to punish the cheaters. These very competitors justly complain the loudest to me about illegal immigration. The law-abiding businesses of Virginia are at a disadvantage when competing with businesses defying our laws by hiring illegal aliens.

- Virginia State Senator Ken Cuccinelli¹

I. INTRODUCTION

The issue of whether hiring illegal workers constitutes an unfair method of competition is presently emerging from an embryonic stage of hypothetical consideration to a potentially viable jurisprudential issue.²

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² See Answer and Affirmative Defenses to Complaint and Defendant’s
Although identified, acknowledged and even advocated within the current debate regarding immigration reform, the issue has been essentially ignored within the jurisprudential landscape of domestic competition law. This article addresses the viability of an unfair competition claim grounded on the act of hiring illegal workers from an economic perspective.

This article’s analysis proceeds in five parts. Part I serves as an overview. Part II introduces and descriptively analyzes the jurisprudential/economic issue in question, as well as chronicles recently filed inter-competitor lawsuits seeking relief from the illegal hiring practices of a horizontal competitor. Part II also demonstrates that the issues addressed herein are timely and relevant with respect to the current socio-economic debate regarding U.S. immigration policy.

Part III reviews the economic objectives of the antitrust laws, and supplements and bolsters the reader’s understanding of the interdisciplinary relationship between law and economics within the context of antitrust law and the regulation of competition. In this regard, Part III introduces and explains the fundamental microeconomic constructs that drive the efficiencies of the perfectly-competitive model. Part III further argues that a robust understanding of the fundamental economic tenets of the perfectly-competitive economic model is a necessary predicate to understanding actionable anticompetitive behavior. More importantly, Part III describes

Counterclaims, at 27, Seven Lives, Inc. v. Regal Baking Co., No. CV 00-08851 CBM (C.D. Cal. Sept. 15, 2000) [hereinafter Answer], wherein defendant competitor alleges that “[u]pon information and belief Counter-Defendants employ a substantial number of illegal aliens in its business operations, probably the majority of their employees, which gives the Counter-Defendants an unfair business advantage over legitimate competitors like Counter-Plaintiff.”; see also Complaint at 7, Global Horizons, Inc. v. Munger Bros., LLC, No. S-1500-CV 258904 (Cal. Super. Ct. Aug. 21, 2006), wherein the plaintiff, Global Horizons, Inc., alleges that the Defendants “conspired to restrain trade or commerce and lessen competition by Defendants’ use of illegal immigrant labor and violation of California wage and hour laws to those workers, the effect of which restrains and directly affects Plaintiff’s ability to compete in the marketplace.” Global Horizons further alleges that the Defendants “illegally conspired to have illegal immigrant undocumented workers used as cheap farm labor on defendant MUNGER’S commercial farm from April thru June 2006.” Id. at 8. The Complaint also states that “[i]f Defendant’s prohibited combination is allowed to continue unabated . . . [c]ompetition in the field of commercial farm labor in Kern County will be eliminated or substantially lessened.” Id. at 9.

3. See Cuccinelli, supra note 1, at F1 (advocating for the right to sue businesses that hire illegal immigrants); see also, e.g., Sylvia R. Lazos, The Professor’s Corner: In the Most Important Immigration Case in Recent History, the U.S. Government and Undocumented Workers Lose, NEVADA LAWYER (June 2003), available at http://www.nvbar.org/publications/NevadaLawyer/2003/June2003/ImmigrationLaw.htm (“Unlike other business rules, benefiting from hiring undocumented labor is not per se illegal. In the law of unfair competition, for example, the very act of price fixing is illegal and actionable under law. The same goes for polluting. In immigration law, employers are not held to any legal consequence if they are found to be employing undocumented workers.”).
and illustrates the analytical relevance of the perfectly-competitive model’s conditions of (a) profit maximization and (b) zero, long-run economic profits, both of which provide significant insight with respect to the task of identifying predatory conduct.

Part IV, applying the microeconomic constructs discussed in Part III, analyzes the economics of hiring illegal alien workers at below-market wages. Generally, Part IV identifies and analyzes the injury to the competitive marketplace that results from a horizontal competitor’s act of hiring illegal workers. Specifically, Part IV (a) identifies the economic externalities and market distortions associated with the illegal act; (b) analyzes the act within the context of the perfectly-competitive model’s assumption of *ceteris paribus*; and (c) addresses when, if ever, the illegal activity constitutes an act of predation generating a horizontal competitive advantage.

Part V examines and discusses relevant jurisprudential economic and antitrust precedent with respect to the (anti)competitive conduct in question. Part V indicates that the act of hiring illegal alien workers at below-market wages triggers potential liability under Sections 1 and 2 of the Sherman Antitrust Act, and also constitutes an unfair trade practice under both state and federal laws. Part V specifically references the relevance of the California Unfair Competition Law given that it broadly proscribes any “unlawful business act” as constituting an unfair competitive practice. The California statutory model is specifically relevant to this article’s discussion regarding the importance of the *ceteris paribus* condition of perfect competition.

Finally, Part VI concludes by asserting that the conduct of hiring illegal workers may indeed constitute an unlawful restraint of trade and/or unfair trade practice under both state and federal law. It posits, however, that unambiguous enforcement policies within either regulatory regimes of trade or immigration will correct and/or minimize the accompanying economic distortions and inefficiencies resulting from such practices.

II. GAINING UNFAIR COMPETITIVE ADVANTAGES BY HIRING ILLEGAL ALIENS AND PAYING BELOW-MARKET WAGES

A. A Statement of the Problem.

The United States’ Immigration and Naturalization Act states that it is unlawful for an employer to knowingly hire an unauthorized alien worker.\(^4\)


In general, it is unlawful for a person or other entity—(A) to hire, or to recruit or refer a fee, for employment in the United States an alien knowing the alien is
Although the title of this article specifies the unfair trade practice of hiring illegal workers, it is somewhat of a misnomer. The mere act of hiring an illegal worker does not necessarily translate into an unfair trade practice. Nevertheless, if such an act creates a market-distorting, horizontal competitive advantage for the hiring firm, then the illegal act may potentially constitute an unfair trade practice. The illegality of hiring a non-resident, alien worker is inconsequential, unless it can be demonstrated that the illegality of the transaction led to a below-market wage with horizontal, anticompetitive effects. Although the illegal nature of the act may be relevant with respect to an issue of intent or the reasonableness of the act, the more important issue seems to focus on whether the unlawful hiring practice creates a competitive advantage that is ultimately injurious to competition.

B. Recent Allegations and Case Scenarios—Dancing Around the Issue.

In recent years there have been several cases asserting allegations of competitive and/or commercial advantages arising from a defendant’s act of hiring illegal alien workers. Although such allegations implicate both state and federal antitrust laws, they have seldom been asserted for the purpose of seeking direct relief under such laws; and if they did directly reference either a state or federal antitrust law, such allegations have yet to be decided on the merits of such anticompetitive claims.

For example, in Larez v. Oberti the class action plaintiffs alleged that:

[D]efendants willfully and knowingly and in violation of the federal Immigration and Nationality Act (8 U.S.C. 1101 et. seq.) induced persons to enter the United States in violation of that act, concealed, harbored and sheltered the illegal aliens from detection and employed such illegal workers at lower wages in competition with domestic workers. It is stated that at least 20

an unauthorized alien . . . with respect to such employment, or (B)(i) to hire for employment in the United States an individual without complying with the requirements of subsection (b) of this section or (ii) if the person or entity is an agricultural association, agricultural employer, or farm labor contractor (as defined in section 1802 of title 29), to hire, or to recruit or refer for a fee, for employment in the United States an individual without complying with the requirements of subsection (b) of this section.

5. See United States v. Tyson Foods, 258 F. Supp. 2d. 809 (E.D. Tenn. 2003) (involving defendant’s use of illegal immigrant labor to gain a business advantage); Answer, supra note 2 at 27 (alleging that the use of illegal aliens as a majority of the employees gave the Counter-Defendants “an unfair business advantage over legitimate competitors . . . .”); see also Complaint, supra note 2 (alleging that defendant’s use of illegal labor for below market wages conferred upon defendant an unfair competitive advantage).

percent of the work force in the areas mentioned consists of such workers, which has resulted in the depression of domestic farm workers' wages and working conditions, the creation of excessive unemployment among farm workers and farm workers being unnecessarily dependent upon welfare.\(^7\)

One of the primary grounds upon which the injunctive relief was sought by the _Larez_ class-plaintiffs was that the "defendants' conduct amount[ed] to unfair and unlawful competition."\(^8\) The California court, however, refrained from granting the requested injunctive relief citing several equitable reasons in addition to holding that the enforcement of immigration policy was essentially a federal issue.\(^9\)

_Seven Lives, Inc. v. Regal Baking Co._\(^10\) involved "a trade dress dispute over [the use and ownership of] common cookie designs," between two competing bakeries.\(^11\) The Defendant filed a counterclaim alleging:

- \[C\]ounter-Defendants employ[ed] a substantial number of illegal aliens in its business operations, probably the majority of their employees, which [gave] the Counter-Defendants an unfair business advantage over legitimate competitors, like Counter-Plaintiff.\(^12\)
- \[C\]ounter-Defendants maintain[ed] two sets of records with which to track employee time to avoid paying employees at the legally mandated overtime rates. The Counter-Defendants [had] . . . their employees punch out after working 40 hours in any week and then [kept] track of the over time on separate records and either [paid] the employee "under the table" or under a different social security number to avoid paying overtime rates. This alleged practice [gave] the Counter-Defendants an unfair

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7. _Id._ at 220.
8. _Id._
9. _Id._ at 222 ("The federal government could, if it would, reduce the flow of illegal entrants to a trickle or virtually dry it up. Rationalization of social security procedures would impede if not bar their access to the employment market. A paradox of this lawsuit is plaintiff's discerned need for a decree compelling inquiry by California farm operators when an agency of the federal government—supplied with an apparatus of offices, staff and computerized equipment—is unwilling or unable to conduct that inquiry. . . . It is more orderly, more effectual, less burdensome to the affected interests, that the national government redeem its commitment. Thus the court of equity withholds its aid." (citing Cobos v. Mello-dy Ranch, 20 Cal. App. 3d 947, 950 (1971) as support)).
10. No. 00-CV08851 CBM (C.D. Cal. 2000); _see supra_ text accompanying notes 2 and 5.
12. Answer, _supra_ note 2, at 27; _see also_ Trade Dress Dispute, _supra_ note 11 (quoting same from Defendant’s Answer).
business advantage over legitimate competitors, like Counter- Plaintiff.  

The dispute was ultimately resolved by an agreement regulating the parties’ rights with respect to the cookie designs in question. Consequently, the Defendant’s counterclaims (colored with allegations of unfair competition) stalled and were never reached on their merits.

In United States v. Tyson Foods, Inc., the United States brought criminal charges alleging that “the defendants, aided and abetted by each other and by other persons, did knowingly bring to and cause to be brought to the United States certain illegal aliens for the purpose of commercial advantage and private financial gain.” Although a Chattanooga Tennessee jury ultimately acquitted the defendants of conspiracy to hire illegal immigrants, it nonetheless was reported that:

[In 2002], Tyson Foods’ CEO made $3.43 million; according to the U.S. Government, Tyson Foods also hired thousands of undocumented workers who fueled the profits that made such rich rewards possible. Jobs in chicken processing plants, because of harsh working conditions, yield annual turnover close to 100 percent . . . . Managers were under pressure to produce profits and fill low wage jobs as best they can. While foreigners and those who did not speak English appeared to dominate local plants—something that should have raised red flags regarding the company’s compliance with immigration laws—local plant managers chose instead to concentrate on the bottom profit line. Such incentives fuel a voracious market for low wage illegal labor.

Tyson Foods involved a criminal prosecution alleging various but specific violations of the United States’ immigration laws. Although the

13. Answer, supra note 2, at 27; see also Trade Dress Dispute, supra note 11 (quoting same from Defendant’s Answer).
14. See Trade Dress Dispute, supra note 11 (discussing terms of a modified temporary restraining order as agreed upon by the parties).
16. Id. at 819.
17. Lazos, supra note 3.
Any person who—(i) knowing that a person is an alien, brings to or attempts to bring to the United States in any manner whatsoever such person at a place other than a designated port of entry or place other than as designated by the Commissioner, regardless of whether such alien has received prior official authorization to come to, enter, or reside in the United States and regardless of any future official action which may be taken with respect to such alien; (ii) knowing or in reckless disregard of the fact that an alien has come to, entered, or remains in the United States in violation of law, transports, or moves or attempts to transport or move such alien within the United States by means of
facts also implicated potential antitrust liability and unfair acts of competition, the government failed to seek any direct relief under either state or federal antitrust or unfair competition laws.

In Williams v. Mohawk Industries, Inc., the plaintiffs filed a class-action complaint alleging that Defendant’s widespread and knowing employment and harboring of illegal workers allowed [Defendant] to reduce labor costs by depressing wages for its legal hourly employees and discouraging worker’s-compensation claims, in violation of federal and state RICO statutes. Again, the plaintiffs’ allegations were not grounded on state or federal antitrust or unfair competition laws, but rather were grounded upon state and federal RICO statutes. It is interesting to note that the Eleventh Circuit ultimately affirmed (in part) that the class plaintiffs sufficiently alleged claims under both state and federal RICO statutes.

C. Allegations of Unfair Trade Practices, Restraints of Trade and Attempts to Monopolize.

In 2006, the pleadings filed in Global Horizons, Inc. v. Munger Bros. finally implicated state antitrust laws by direct reference. Specifically, it was alleged that:

[Defendants] illegally conspired to have illegal immigrant undocumented workers used as cheap farm labor . . . .

Defendants . . . . and others entered into and engaged in an unlawful trust in restraint of trade and commerce and [sic] which prevents or lessens competition . . . .

transportation or otherwise, in furtherance of such violation of law; (iii) knowing or in reckless disregard of the fact that an alien has come to, entered, or remains in the United States in violation of law, conceals, harbors, or shields from detection, or attempts to conceal, harbor, or shield from detection, such alien in any place, including any building or any means of transportation; (iv) encourages or induces an alien to come to, enter, or reside in the United States, knowing or in reckless disregard of the fact that such coming to, entry, or residence is or will be in violation of law; or (v)(I) engages in any conspiracy to commit any of the preceding acts, or (II) aids or abets the commission of any of the preceding acts, shall be punished as provided in subparagraph (B).

20. Id. at 1255.
21. See Williams, 465 F.3d at 1282-95 (concluding that plaintiffs’ allegations were sufficient under state and federal RICO statutes and thus the District Court properly denied defendant’s 12(b)(6) motion on those claims).
22. See Complaint, supra note 2.
23. Id. at 8.
24. Id.
Entry of new competitors or expansion of the market will not be . . . likely, or sufficient to undo the competitive harm that has resulted and will continue to result from Defendants [sic] attempt to monopolize the supply of commercial farm laborers and involvement in the prohibited combination . . . in violation of the Cartwright Act, as it was intended to prevent competition in the commercial farm laborer industry. 25

There are high barriers to entry or expansion in the market for commercial farm laborers. The barriers include providing qualified farm laborers in a manner that is in compliance with California State wage and hour laws and Federal immigration and work visa laws. 26

Plaintiff . . . as part of its compliance with the H-2A worker visa program incurs the expense of arranging transportation of the non-local workers from and back to their country of origin. [Plaintiff] provides satisfactory housing for all of the non-local workers for the entire time they are in this country. [Plaintiff] pays the applicable processing fees to both the Departments of Labor and Immigration. [Plaintiff] manages the laborers’ daily living requirements and ensure [sic] that both the housing and job sites pass frequent inspections by the applicable agency overseeing [Plaintiff’s] treatment of farm laborers. 27

Labor suppliers such as Defendants do not have to incur the cost of providing for any of the above expenses . . . . 28

If Defendant’s prohibited combination is allowed to continue

25. Id.
26. Id. at 9.
27. Id. It merits noting that an employer of an H-2A Visa Holder must incur significant increased expenses with respect to the employment of such temporary workers. For example, employers must pay the higher of the Adverse Effect Wage Rate (AEWR), the applicable prevailing wage, or the statutory minimum wage as specified in the regulations. See 20 C.F.R. § 655.107 (2008) (establishing that the higher wage rate must prevail). As of October 7, 2008, the average AEWR reported by the Department of Labor, Employment and Training Administration equals $9.43, a rate significantly higher than all reported state and federal minimum wage laws. See 70 Fed. Reg. 10,288, 10,289 (Feb. 26, 2008) (containing table establishing Adverse Effect Wage Rates for each state in 2008). Additionally, employers must provide free housing to all temporary workers who are not reasonably able to return to their residences on the same day subject to mandatory inspections according to appropriate standards; provide either three meals a day to each visa holder or furnish free and convenient cooking and kitchen facilities for workers to prepare their own meals; and they must reimburse the cost of transportation and subsistence from the place of recruitment to the place of work upon the workers completion of 50% of the work contract period. Consequently, the economic advantages gained from hiring illegal alien workers at below-market (or statutory) wage rates is exacerbated when such workers are in direct competition with H-2A Visa Holders. See 20 C.F.R. § 655.102(b)(1)-(14) (2008) (discussing minimum benefits, wages, and working conditions that must accompany all job offers for H-2A applications).
unabated . . . [c]ompetition in the field of commercial farm labor in Kern County will be eliminated or substantially lessened. 29

Unlike the previously mentioned cases, Global Horizons included specific allegations directly seeking relief available under California’s antitrust statute (the Cartwright Act). 30 Although Global Horizons is in its incipiency and has yet to be decided on the merits, it illustrates that the issue of whether the unlawful hiring of illegal alien workers may constitute an unreasonable restraint of trade and/or unfair trade practice under state and/or federal antitrust laws is ripe for discussion and analysis.

Each of the above referenced cases (either indirectly or directly) echoed claims of unfair competition, unfair business practices, combinations in restraint of trade, and attempts to monopolize. All of these claims, either in isolation or in the aggregate, are likely to substantially lessen, if not eliminate, competition in the market place. As such claims begin to resonate among practitioners, jurists and academics alike, the issue of whether the unlawful hiring of illegal alien workers at below-market wage rates invites an interdisciplinary analysis of such claims from both economic and jurisprudential perspectives. This article begins such an interdisciplinary analysis by first addressing the economics of antitrust policy.

III. THE ECONOMIC OBJECTIVES OF THE ANTITRUST LAWS

A. The Preservation of Competition.

Federal antitrust law dictates that it is unlawful to engage in conduct that “restrain[s]” or constitutes an “attempt to monopolize” or that “monopolize[s]” trade or commerce. 31 The Federal Trade Commission Act further provides that it is unlawful to engage in conduct that constitutes “unfair methods of competition.” 32 Most states, if not all, prohibit similar anticompetitive conduct and/or unfair methods of competition, while giving “varying degrees of deference to federal precedent in applying state antitrust law to practices also subject to challenge under federal law.” 33

29. Id. at 9.
30. See Complaint, supra note 2, at 3 (“This complaint is filed and this action is instituted under the Cartwright Act . . . for an unlawful trust, agreement, understanding, and concert of action.”).
33. See ABA SECTION OF ANTITRUST LAW, 1 STATE ANTITRUST PRACTICES AND STATUTES 1:22 (3d ed. 2004) (“Today, virtually every state has an antitrust statute of one sort or another, as do the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands.”).
34. Id. at 1:22-23; see also ABA ANTITRUST SECTION: MONOGRAPH NO. 15, ANTITRUST
The central purpose of both state and federal antitrust legislation is “to preserve competition in those markets where competitive policy has not been displaced by direct governmental regulation or exemption.” Thus, the study of antitrust law necessarily involves the study of competition: “[i]t is a body of law that seeks to assure competitive markets through the interaction of sellers and buyers in the dynamic process of exchange.” Although the legislative history of the Sherman Act reveals multiple goals and values expressed by its proponents, the antitrust laws are contemporarily understood as having been “written foremost to encourage competition.” It is, accordingly, of little surprise that “[e]conomists generally view antitrust as a set of laws designed to promote competition, and therefore, economic efficiency.”

35. PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, 2B ANTITRUST LAW, AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION, 3-4 (3d ed. 2007).


37. For example, “[t]he Congress that passed the Sherman Act was concerned with business concentration, acquisition of monopoly power, cartels,” “[e]ntrepreneurial independence,” dispersion of “economic power,” stimulation of “access to free markets,” and protection of (a) “consumers from a redistribution of wealth from consumers to monopolists,” and (b) “competitors from predatory practices.” Id. at 3 (citing S.1 51st Cong., 1st Sess. (1889), reprinted in THE LEGISLATIVE HISTORY OF THE FEDERAL ANTITRUST LAWS AND RELATED STATUTES 89 (E. Kintner ed. 1978), 21 Cong. Rec. 2460, 2457, 3146, 3152 (1890); see also STEPHEN ROSS, PRINCIPLES OF ANTITRUST LAW 6-11 (1993) (noting that the goals of the Sherman Act included protection of small businesses and dispersion of economic power); Harlan M. Blake & William K. Jones, In Defense of Antitrust, 65 COLUM. L. REV. 377 (1965) (rebuiting allegations that the Sherman and Clayton Acts are being enforced in a way that is anticompetitive rather than preserving competition and protecting customers); John J. Flynn, Antitrust Jurisprudence: A Symposium on the Economic, Political and Social Goals of Antitrust Policy, 125 U. PA. L. REV. 1182 (1977) (observing that the motivations behind antitrust are obscure); Eleanor M. Fox, The Modernization of Antitrust: A New Equilibrium, 66 CORNELL L. REV. 1140 (1981) (examining the contention that antitrust laws should be used solely to promote economic efficiency); Robert H. Lande, Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged, 34 HASTINGS L.J. 67, 68, 70 (1982) (stating that there is continued debate over Congress’ intentions when passing antitrust legislation); Louis B. Schwartz, “Justice” and Other Non-Economic Goals of Antitrust, 127 U. PA. L. REV. 1076 (1979) (stating that one congressional goal of passing antitrust legislation was to remedy unjust discrimination); E. Thomas Sullivan, The Economic Jurisprudence of the Burger Court’s Antitrust Policy: The First Thirteen Years, 58 NOTRE DAME L. REV. 1 (1982) (stating that the Burger Court adopted a competition efficiency paradigm in its approach to antitrust law).

38. SULLIVAN & HARRISON, supra note 36, at 4.

B. The Objective of Perfect Competition—Efficiency.

Economic theory has long acknowledged that the given environment within which society functions is constrained by scarcity, and that such scarcity is the fundamental source of social and political conflict. Given such scarcity, all societies are confronted with the problem of determining (1) “[w]hat, and how much, to produce,” (2) “[h]ow to produce it,” and (3) “[f]or whom to produce it.” The field of microeconomics has demonstrated that the adoption of the perfectly-competitive model provides a remarkable social mechanism with which to administer the social problems generated by scarcity. The perfectly-competitive model ultimately nurtures, if not ensures, efficiencies in the allocation, production and distribution of scarce resources. As Figure 1 demonstrates, the unfettered forces of supply and demand determine an efficient quantity of production for any given good or service (\(Q_e\)), as well as a market clearing price with respect to that good or service (\(P_e\)); it is at this point that the market achieves equilibrium.

40. See David C. Colander, Microeconomics 5 (5th ed. 2004) (discussing how scarcity and the unwillingness of individuals to solve the problem lead to basic economic problems).
41. Id.
42. See Areeda, Hovenkamp & Solow, supra note 35, at 5 (“A perfectly competitive economy produces an equilibrium that yields efficient use of resources in both the productive and allocative senses. Productive efficiency means that firms maximize operating efficiency by producing all goods and services at least cost. Allocative efficiency entails that resources are allocated among the production of various goods and services so that no reallocation of inputs and outputs could increase the aggregate consumer welfare by making some consumers better off without making others worse off.”).
43. See Robert S. Pindyck & Daniel L. Rubinfeld, Microeconomics 23-24 (5th ed. 2001) (“The two curves intersect at the equilibrium, or market-clearing price and quantity. At this price \(P_e\), the quantity supplied and the quantity demanded are just equal (to \(Q_e\)). The market mechanism is the tendency in a free market for the price to change until the market clears—i.e., until the quantity supplied and the quantity demanded are equal. At this point because there is neither excess demand nor excess supply, there is no pressure for the price to change further. Supply and demand might not always be in equilibrium, and some markets might not clear quickly when conditions change suddenly. The tendency is for markets to clear.”).
Figure 1 illustrates the market demand and supply curves for a given good in a competitive market. The firm’s individual supply curve is derived from its marginal cost curve,\textsuperscript{44} that is, as long as the market price for a given good equals or exceeds the marginal cost to produce that good, a firm will produce and supply a given good.\textsuperscript{45} The market or industry supply curve is derived from the horizontal summation of all the marginal-cost curves of the competing individual firms (i.e., the horizontal summation of their individual firm supply curves).\textsuperscript{46} The industry or

\textbf{THE UNFETTERED FORCES OF SUPPLY AND DEMAND:}

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supply curve is the portion of its marginal cost curve that lies above the average economic cost curve.”); Viscusi, Harrington, Jr. & Vernon, supra note 39, at 80 (“The individual firms’ supply curves are their marginal cost curves; hence we can think of the supply curve [above] as the industry’s marginal cost curve.”); see also infra notes 81-82 and accompanying text.

\textsuperscript{46} See Colander, supra note 40, at 254 (“In the short run when the number of firms

\textsuperscript{44} See Paul A. Samuelson & William D. Nordhaus, Economics 125-26 (18th ed. 2005) (“Marginal cost is one the most important concepts in all of economics. Marginal cost (MC) denotes the extra or additional cost of producing 1 extra unit of output.”); see also infra notes 81-82 and accompanying text.

\textsuperscript{45} See Colander, supra note 40, at 247 (“Since the marginal cost curve tells the firm how much to produce, the marginal cost curve is the perfectly competitive firm’s supply curve.”); Pindyck & Rubinfeld supra note 43, at 263 (“[T]he firm’s supply curve is the portion of its marginal cost curve that lies above the average economic cost curve.”); Viscusi, Harrington, Jr. & Vernon, supra note 39, at 80 (“The individual firms’ supply curves are their marginal cost curves; hence we can think of the supply curve [above] as the industry’s marginal cost curve.”); see also infra notes 81-82 and accompanying text.
market supply curve reflects the schedule of prices at which firms are willing to supply a given quantity of any good or service. As price increases, rational firms are willing to supply more and more, and thus the more the market or industry is willing to supply. Given the positive relationship between the price of a good or service and the quantity supplied, the slope of the market or industry supply curve is also positive.47

The industry or market demand curve “can be viewed as a schedule of the marginal willingness-to-pay of customers.”48 In Figure 1 above, the competitive equilibrium price (P_e) equals the industry’s marginal cost of production at the equilibrium output Q_e.49 Should the market only produce Q’ units of the good or service in question, economic waste results because the marginal willingness-to-pay exceeds the marginal cost to produce additional units of the good or service. Should the market produce Q’’ units of the good or service in question, economic waste results because the marginal cost to produce Q’’ units exceeds the marginal willingness-to-pay. Figure 1 ultimately demonstrates that the unfettered forces of supply and demand in a perfectly competitive market determines a market clearing quantity (Q_e) and a corresponding price (P_e), thereby answering the profound political/economic question of what and how much society should produce of a given good or service given the constraints of scarcity.

In equilibrium[,] price will equal marginal cost for all goods and services, and rates of return (adjusted for risk) on investment in the various markets will be equal and just sufficient to maintain investment at current levels. Since each price reflects the value of each product to the marginal buyer, and since each price equals the cost of the marginal unit of output, consumer welfare is maximized; any rearrangement of inputs and outputs can only

in the market is fixed, the market supply curve is just the horizontal sum of all the firms’ marginal cost curves, taking account of any changes in input prices that might occur.”); PINDYCK & RUBINFELD, supra note 43, at 267 (“The short-run industry supply curve is the summation of the supply curves of the individual firms.”); VISCUSI, HARRINGTON, JR. & VERNON, supra note 39, at 80 (“The competitive industry’s supply curve is found by horizontal aggregation of the supply curves of individual firms.”); see also infra note 83 and accompanying text.

47. See SAMUELSON & NORDHAUS, supra note 44, at 51 (“One important reason for the upward slope is ‘the law of diminishing returns’ . . . . Wine will illustrate this important law. If society wants more wine, then additional labor will have to be added to the limited land sites suitable for producing wine grapes. Each new worker will be adding less and less extra product. The price needed to coax out additional wine output is therefore higher. By raising the price of wine, society can persuade wine producers to produce and sell more wine; the supply curve for wine is therefore upward-sloping.”).

48. VISCUSI, HARRINGTON, JR. & VERNON, supra note 39, at 81 (footnote omitted).

49. See id. (“[A]t the competitive equilibrium (price P*, output Q*), the marginal willingness-to-pay P* exactly equals marginal cost at the output Q*.”).
decrease the aggregate value of what consumers receive.\footnote{See Areeda, Hovenkamp & Solow, supra note 35, at 6.}

Thus, perfect competition minimizes waste by minimizing the risk of under- or over-production. As a result, supply equals demand, and resources are allocated and distributed to those who value them most.

C. The Operational Conditions of Perfect Competition.

The underlying assumptions (or rather, the antecedent conditions) of the perfectly-competitive model\footnote{See Colander, supra note 40, at 242 (outlining the “[n]ecessary [c]onditions for [p]erfect [c]ompetition” to thrive).} essentially consist of the following:

1. The existence of numerous buyers and sellers,\footnote{See John von Neumann & Oskar Morgenstern, Theory of Games and Economic Behavior 13 (16th ed. 2004) (“When the number of participants becomes really great, some hope emerges that the influence of every particular participant will become negligible, and that the above difficulties may recede and a more conventional theory become possible. These are, of course, the classical conditions of ‘free competition.’ Indeed, this was the starting point of much of what is best in economic theory.”); see also Edwin Mansfield & Gary Yohe, Microeconomics 356-57 (11th ed. 2004) (“The firm in a perfectly competitive market has so many rivals that competition becomes impersonal in the extreme . . . . A competitive firm faces so little of the market demand that its effective demand curve is horizontal at whatever price the market will bear. A competitive firm can decide only the output that it would like to supply to the market given that price.”); Pindyck & Rubinfeld, supra note 43, at 327 (“In a perfectly competitive market, the large number of sellers and buyers of a good ensures that no single seller or buyer can affect its price. The market-forces of supply and demand determine price.”).} each acting independently\footnote{See Pindyck & Rubinfeld, supra note 43, at 430 (“In [competitive] markets, each firm could take price or market demand as given and largely ignore its competitors. In an oligopolistic market, however, a firm sets price or output based partly on strategic considerations regarding the behavior of its competitors.”). See also Areeda, Hovenkamp & Solow, supra note 35, at 5 (“Each seller and buyer makes decisions independently, without agreement with or influence of others.”); Mansfield & Yohe, supra note 52, at 426, 433-34 (“Unlike the case of . . . competition, the supply side of an oligopoly market is composed of a few firms . . . . Conditions in oligopolistic industries tend to promote collusion, since the number of firms is small and the firms recognize their interdependence. The advantages to the firms of collusion seem obvious: increased profits, decreased uncertainty, and a better opportunity to prevent others’ entry.”).} and rationally;\footnote{Steven E. Landsburg, Price Theory & Applications 634 (6th ed. 2005) (“[T]he economist assumes that people are rational.”); see also Areeda, Hovenkamp & Solow, supra note 35 (discussing rational choice as an equimarginal principle.).}

2. Each buyer and seller consumes or produces such a negligible amount of the total output such that no one buyer or seller can influence price by the amount he either consumes or produces;\footnote{See Pindyck & Rubinfeld, supra note 43, at 252 (“Because each individual firm sells a sufficiently small proportion of total market output, its decisions have no impact on market price . . . . The assumption of price taking applies to consumers as well as firms.”); see also Areeda, Hovenkamp & Solow, supra note 35, at 5 (“Sellers and buyers are so
3. There are no barriers to entry or exit with respect to consumer or producer markets;  
4. All market participants, that is, all buyers and sellers, are fully informed of all relevant economic and technological data;  
5. All products are homogeneous or, rather, constitute interchangeable substitutes for each other;  
6. The forces of supply and demand are free to determine the quantity of output in a relevant market, and to determine a market-clearing, competitive price of such output;  
7. *Ceteris Paribus*, i.e., all other influences relevant to the numerous that no individual’s output or purchasing decision has any perceptible impact on output or price.”); MANSFIELD & YOHE, supra note 52, at 290 (“[P]erfect competition requires that each participant in the market, whether a buyer or a seller, be so small in relation to the entire market that he or she cannot affect the product’s price.”).

56. See PINDYCK & RUBINFELD, supra note 43, at 253 (“[F]ree entry (exit), means that there are no special costs that make it difficult for a new firm either to enter an industry and produce or to exit if it cannot make a profit. As a result, buyers can easily switch from one supplier to another, and suppliers can easily enter or exit a market.”); see also AREEDA, HOVENKAMP & SOLOW, supra note 35, at 5 (“All productive resources are freely mobile among markets; there are no barriers to entry or exit.”); MANSFIELD & YOHE, supra note 52, at 290 (“Perfect competition also requires that all resources be completely mobile. Each resource must, in other words, be able to enter or leave the market with ease and to switch from one use to another without fuss or bother.”).

57. See PINDYCK & RUBINFELD, supra note 43, at 595 (“[W]e have assumed that consumers and producers have complete information about the economic variables that are relevant for the choices they face.”); see also AREEDA, HOVENKAMP & SOLOW, supra note 35, at 5 (“All sellers and buyers have sufficient knowledge of all production techniques, input costs, prices, and other relevant market facts.”); MANSFIELD & YOHE, supra note 52, at 290-91 (“[P]erfect competition requires that consumers, firms, and resource owners have perfect knowledge of the relevant economic and technological data. Consumers must be aware of all prices. Laborers and owners of capital must be aware of how much their resources will bring in all possible uses. Firms must know the prices of all inputs and the characteristics of all relevant technologies. And in its purest sense, perfect competition requires that all of these economic decision-making units have an accurate knowledge of the past, present, and the future.”).

58. See PINDYCK & RUBINFELD, supra note 43, at 252 (“Price-taking behavior typically occurs in markets where firms produce identical, or nearly identical, products. When the products of all of the firms are perfectly substitutable with one another—that is, when they are homogeneous—no firm can raise the price of its product above the price of other firms without losing most or all of its business.”); see also MANSFIELD & YOHE, supra note 52, at 405 (describing perfectly competitive situations as those in which numerous firms produce and sell goods that are “completely homogenous from one seller to another.”).

59. See PINDYCK & RUBINFELD, supra note 43, at 55 (“The market mechanism is the tendency for supply and demand to equilibrate (i.e., for price to move to the market-clearing level), so that there is neither excess demand nor excess supply.”); see also MANSFIELD & YOHE, supra note 52, at 347-48 (“We have seen that a perfectly competitive economy maximizes the total net gain of consumers and producers. We then showed . . . how dead-weight losses—reductions in economic efficiency—result if the government [obstructs the forces of supply and demand by imposing] a price ceiling . . ., a price floor . . ., a tariff, a quota, or an excise tax.”).
perfectly-competitive model’s performance are equal.  

According to microeconomic theory, if these conditions hold, the perfectly-competitive model will create efficiencies in consumption, production, and allocation. And it is through the creation of such efficiencies that a perfectly competitive market promises the greatest social opportunity for wealth creation. Or in antitrust parlance, it promises greater output at lower prices. 

D. Perfect Competition and its Condition of Rationality.

Central to the perfectly-competitive model is the assumption that all market participants are rational, with rational action being defined by the principle of utility/profit maximization. Any act of consumption or

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60. See WALTER NICHOLSON, INTERMEDIATE MICROECONOMICS AND ITS APPLICATION 56 (9th ed. 2004) [hereinafter NICHOLSON, INTERMEDIATE MICROECONOMICS] (“Much economic analysis is based on this ceteris paribus (other things being equal) assumption. [For example,] [w]e can simplify the analysis of a person’s consumption decisions by assuming that satisfaction is affected only by choices made among the options being considered. All other effects on satisfaction are assumed to remain constant. In this way we can isolate the economic factors that affect consumption behavior. This narrow focus is not intended to imply that other things that affect utility are unimportant; we are conceptually holding these other factors constant so that we may study choices in a simplified setting.”); see also WALTER NICHOLSON, MICROECONOMIC THEORY, BASIC PRINCIPLES AND EXTENSION 649 (9th ed. 2005) [hereinafter NICHOLSON, MICROECONOMIC THEORY] (defining the Ceteris Paribus Assumption as “[t]he assumption that all other relevant factors are held constant when examining the influence of one particular variable in an economic model”).

61. See VON NEUMANN & MORGENSTERN, supra, note 52 at 14 (“The current assertions concerning free competition appear to be very valuable surmises and inspiring anticipations of results. But they are not results and it is scientifically unsound to treat them as such as along as the conditions which we mentioned above are not satisfied.”).

62. Sanderson v. Culligan Int’l Co., 415 F. 3d. 620, 623 (7th Cir. 2005) (quoting Judge Easterbrook’s explanation that “[a]ntitrust law condemns practices that drive up prices by curtailing output” (citations omitted)).

63. See COLANDER, supra note 40, at 6-8, 239 (describing the “profit-maximizing entrepreneurial” nature of firms); Pindyck & Rubinfeld, supra note 43, at 254 (“The assumption of profit maximization is frequently used in microeconomics because it predicts business behavior reasonably accurately and avoids unnecessary analytical complications.”); see also COLANDER, supra note 40, at 181 (“The analysis of rational choice is the analysis of how individuals choose goods within their budget in order to maximize total utility, and how maximizing total utility can be accomplished by considering marginal utility. That analysis begins with the premise that rational individuals want as much satisfaction as they can get from their available resources. The term rational in economics means, specifically, that people prefer more to less and will make choices that give them as much satisfaction as possible.”); LANDSBURG, supra note 54, at 634 (“The economist assumes that people act according to the principle of equimarginality. This is often expressed by saying that the economist assume that people are rational. Indeed, it has been said that a student becomes a true economist on the day when he fully understands and accepts the principle that people equate costs and benefits at the margin.”); EDWIN MANSFIELD, MICROECONOMICS: THEORY AND APPLICATIONS 55 (6th ed. 1988) (“Given the consumer’s tastes, we assume that he or
production that fails to maximize the utility or profit of an individual or firm is considered to be irrational economic behavior. Consequently, in order to act rationally, all market participants must be fully informed of all costs and benefits associated with their respective economic activities. Once informed, an economically rational actor will weigh his or her costs and benefits, and if the benefits exceed or equal his or her costs, he or she will engage in such activity. Consumers choose consumption levels that maximize their interpersonal utility (i.e., satisfaction), given their specific budget constraints. Consumer utility is maximized where the marginal benefit of an act of consumption is equal to its marginal cost. Firms choose output levels at which their marginal revenue equals marginal cost. Economic rationality necessarily requires that all costs and benefits be considered when exercising economic choices. To the extent all such costs and benefits are not considered, in that they are external to the rational decision making process, non-utility/profit-maximizing choices will be made resulting in unacceptable market inefficiencies.

She is rational, in the sense that he or she tries to maximize utility."; Stephen A. Mathis & Janet Koscianski, Microeconomic Theory: An Integrated Approach 2 (2002) ("[M]aking rational choices is a matter of choosing amount(s) of some decision, or independent, variable(s) such that the extra benefit received from the last unit chosen is just equal to its extra costs. In economics, the process of measuring and comparing the extra benefits and extra costs associated with a rational decision is known as marginal analysis.").

64. See Mansfield & Yohe, supra note 52, at 290 ("[P]erfect competition requires that consumers, firms, and resource owners have perfect knowledge of the relevant economic and technological data. Firms must know the prices of all inputs and the characteristics of all relevant technologies. And in its purest sense, perfect competition requires that all of these economic decisions-making units have an accurate knowledge of the past, the present, and the future.").

65. See Anthony E. Boardman et al., Cost-Benefit Analysis, Concepts and Practice 31 (3d ed. 2006) (explaining the net benefits criterion, which only encourages adopting policies that maximize net benefits).

66. See Pindyck & Rubinfeld, supra note 43, at 79 (discussing how consumers choose which goods they will buy).

67. See Pindyck & Rubinfeld, supra note 43, at 80 ("[S]atisfaction is maximized when the marginal benefit—the benefit associated with the consumption of one additional unit of food—is equal to the marginal cost—the cost of the additional unit of food.").

68. Pindyck & Rubinfeld, supra note 43, at 259.

69. See Mansfield & Yohe, supra note 52, at 675 ("[P]roducers act in ways that cause harm to others without paying the full cost of the damage. In these and other, similar cases, the pursuit of private gain will not necessarily promote the social welfare.").
E. Operational and Allocative Efficiency—The Perfectly-Competitive Model’s Long-Run Equilibrium.\textsuperscript{70}

Operationally:

Competitive conditions ultimately force each firm in each market to produce at the least possible cost permitted by known techniques. Firms that fail to do so may temporarily break even or perhaps make modest profits when demand is high, but will incur losses and eventually disappear as resources commanded by more efficient firms move into the market. In long-run equilibrium, each firm will be producing at minimum average total cost in plants of most efficient scale.\textsuperscript{71}

Allocatively:

The key conditions creating optimal allocative efficiency are sufficiently large numbers of sellers and buyers in each market and resource mobility. Where each individual seller’s output decisions have no perceptible effect on price as given, any profit maximization will impel each to produce that output at which the added cost of the last unit (marginal cost) just equals price. If at that point the sellers in some markets are earning higher profits, (revenues in excess of total costs) then sellers in other markets [and] resources will flow from the low-return to the high-return markets until returns are equalized. In equilibrium, price will equal marginal cost for all goods and services, and rates of return (adjusted for risk) on investment in the various markets will be equal and just sufficient to maintain investment at current levels. Since each price equals the cost of the marginal unit of output, consumer welfare is maximized; any rearrangement of inputs and outputs can only decrease the aggregate value of what consumers receive.\textsuperscript{72}

\textsuperscript{70} See Pindyck & Rubinfeld, supra note 43, at 272-77 (providing a detailed and robust discussion of the long-run equilibrium in competition).

\textsuperscript{71} Areeda, Hovenkamp & Solow, supra note 35, at 6.

\textsuperscript{72} Id. at 6.
Figure 2 above illustrates short-run producer surplus \(^73\) for a profit-maximizing (rational), price-taking firm in a competitive market. \(^74\) As a price-taker, \(^75\) the market dictates an equilibrium quantity at a market clearing price \(P_c\). Acting independently \(^76\) and rationally, \(^77\) the firm will seek to maximize profits at \(Q_S\), where its marginal revenue equals its short-run marginal costs (\(SMC = P_C = P_e\)). \(^78\) Because of the price-taking

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73. *Pindyck & Rubinfeld*, supra note 43, at 269 (“If marginal cost is rising, the price of the product is greater than marginal cost for every unit produced except the last one. As a result, firms earn a surplus on all but the last unit of output. The producer surplus of a firm is the sum over all units produced of the differences between the market price of the good and the marginal costs of production. Just as consumer surplus measures all of the area below an individual’s demand curve and above the market price, producer surplus measures the area above a producer’s supply curve and below the market price.”).


75. See *supra* note 55 for an explanation of the price-taking condition of perfect competition as a function of both the number of competitive firms in the market and their respective market shares with respect to units produced. For example, given the number of firms and their respective productive capacities, no one firm can influence price by the amount of inputs it consumes or units it produces.

76. See *supra* note 53 and accompanying text.

77. See *supra* notes 54 and 63 and accompanying text.

78. *Pindyck & Rubinfeld*, supra note 43, at 269 (“Figure 8.11 illustrates short-run producer surplus for a firm. The profit-maximizing output is \([Q_s]\) where \([P_C = SMC]\). The producer surplus is then the sum of these “unit surpluses” over all units that the firm produces. It is given by the . . . [the area under the \(P_C\) —price-line, the firm’s perceived horizontal demand curve] and above its marginal cost curve [SMC], from zero output to the
condition, an individual firm in competition perceives a perfectly elastic, horizontal demand curve \((d_{th})\). Since the forces of supply and demand set a market clearing price of \(P_e\), a firm perceives an infinite demand—i.e., it can and will sell all of its units of production at whatever price the market sets. For each unit sold, the firm will be paid the market price of \(P_e = P_C\); and for each additional unit sold by the firm, the firm will receive additional revenue equal to the market price of \(P_e = P_C\). The market price \(P_e\) equals the firm’s marginal revenue (MR) associated with the firm’s additional unit sales.\(^79\) Consequently, the firm’s short-run marginal revenue curve corresponds to its perceived individual demand curve \((d_{th})\).\(^80\)

The firm’s individual supply curve corresponds to its marginal cost curve;\(^81\) it reflects the various quantities of output the firm is willing to supply with respect to a corresponding schedule of prices.\(^82\) The market supply curve may roughly be approximated by “the horizontal summation of the short-run supply curves of all the firms in the industry.”\(^83\) In Figure

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79. See Pindyck & Rubinfeld, supra note 43, at 245 (defining “marginal revenue: the change in revenue resulting from a one-unit increase in output.”); see also Colander, supra note 40, at 245 (“Since profit is the difference between total revenue and total cost, what happens to profit in response to a change in output is determined by marginal revenue (MR), the change in total revenue associated with a change in quantity . . . .”); Nicholson, Microeconomic Theory, supra note 60, at 251-52 (“It is the revenue obtained from selling one more unit of output that is relevant to the profit-maximizing firm’s output decision. If the firm can sell all it wishes without having any effect on market price, the market price will indeed be the extra revenue obtained from selling one more unit. Phrased another way, if a firm’s output decisions will not affect market price, marginal revenue is equal to the price at which the unit sells.”).

80. See Mark Hirschey, Managerial Economics 384 (10th ed. 2003) (“[T]he firm’s demand curve is seen to be, for all practical purposes, a horizontal line. Thus, it is clear that under perfect competition, the individual firm’s output decisions do not affect price in any meaningful way. Price can be assumed constant irrespective of the output level at which the firm chooses to operate.”); see also Mark Hirschey, Managerial Economics 386 Figure 10.3 (illustrating that “[f]irms face horizontal curves in perfectly competitive markets”).

81. See id. at 389 (“The perfectly competitive firm’s short-run supply curve corresponds to that portion of the marginal cost curve that lies above the average variable cost curve.”); Mansfield & Yohe, supra note 52, at 296 (“The short-run supply curve is, by construction, exactly the same as the firm’s short-run marginal-cost curve . . . .”). Similar to the term marginal revenue, marginal cost “is the increase (decrease) in total cost from increasing (or decreasing) the level of output by one unit.” Colander, supra note 40 at 259; see also supra notes 44-45 and accompanying text (explaining how the basic theory of the firm is to maximize their profits).

82. See Nicholson, Microeconomic Theory, supra note 60, at 257 (“The firm’s short-run supply curve show how much it will produce at various possible prices. For a profit-maximizing firm that takes the price of its output as given, this curve consists of the positively sloped segment of the firm’s short-run marginal cost above the point of minimum average variable cost.”).

83. Mansfield & Yohe, supra note 52, at 297; see also Colander, supra note 40, at 254 (“In the short-run when the number of firms in the market is fixed, the market supply curve is just the horizontal sum of all the firm’s marginal cost curves, taking account of any
2, the firm produces $Q_S$ units, given a market price of $P_e = P_c$, reaping short-run profits ($\pi_s$) equal to the area of ABCD.  

It is noted that “[a] firm need not always earn a profit in the short-run.” In fact, as a price-taker, the firm may find itself confronted with a market price that falls below its short-run average costs ($P_e < SAC$) and thus be forced to operate at a loss or exit the industry. Under such circumstances, a firm may nonetheless continue to operate at a short-run loss because it expects to earn profits in the future “when the price of its product increases or the cost of production falls, and because shutting down and starting up again would be costly.” If the market price, however, “is less than [short-run] average variable costs, the firm should produce nothing and incur a loss equal to total fixed costs. Losses will increase if any output is produced and sold when $P < [SAVC]$.” Under such circumstances, the firm should shut down and exit the industry.

The perfectly-competitive model’s lack of entry and exit barriers suggests that profits attract market entry. When a firm experiences losses, such losses encourage market exit. Such entry and exit cause market supply to expand or contract as reflected by a shift of the market supply curve (S) either to the right or left, respectively. For example, Figure 3 below illustrates the impact on the firm’s profits in competition as such profits attract entry. For the purpose of simplicity, it is assumed that “there are no sunk costs so that average economic cost is equal to average total cost.” Attracted by the profits reflected in Figure 3, firms enter the market, causing the supply curve (S) to shift to (S'), causing the market price to fall to $P_C'$, which is below the firm’s short-run average cost curve (SAC). At a market price equal to $P_C'$, the firm experiences losses equal to the area of rectangle ABCD. And since it is assumed that no sunk costs exist, the firm can easily exit the market and invest its capital in other markets with higher returns. Thus, “the firm should shut down when the

changes in input prices that might occur.”); Hirschey, supra note 80, at 389 (“Market supply curves are the sum of supply for individual firms at various prices.”).

84. See Pindyck & Rubinfeld, supra note 43, at 269-71 (explaining the formula $\pi$ (profit) = Total Revenues (TR) – Total Costs (TC); TR = $P_C' * Q_S$ = area of ABFE; TC = $P_I$ (Average Cost of Inputs) * $Q_S$ = area of DCFE; $\pi_s$ = area of ABCD = area of ABFE (total revenue) – area of DCFE (total costs)).

85. Pindyck & Rubinfeld, supra note 43, at 259.
86. Id.
87. Hirschey, supra note 80, at 389 (“If price exceeds average variable costs, then each unit of output provides at least some profit contribution to help cover fixed costs and provide profit. The minimum point on the firm’s average variable cost curve determines the lower limit, or cutoff point, of its supply schedule.”).

88. See supra note 56 and accompanying text (defining free entry as the absence of special costs associated with beginning or halting operations in a market).

89. Pindyck & Rubinfeld, supra note 43, at 259.

90. See id. (explaining firm incentives in the absence of sunk costs).
price of its product is less than the average total cost at the profit-maximizing output.”

**Figure 3**

PERFECT COMPETITION IN THE SHORT-RUN &
THE PRICE-TAKING FIRM AFTER COMPETITIVE ENTRY

With the decline of the market price to $P_C$ and the resulting short-run losses, the hypothetical firm above (as well as other firms similarly situated) will rationally opt to exit the market. Thus, market supply will contract, as reflected by a shift of the market supply curve from $S$ to $S'$ illustrated in Figure 4 below. Ultimately, a long-run competitive equilibrium is reached when all firms in the market are maximizing profits at the new competitive equilibrium price, $P_C = SAC = SMC$. At $P_C$, the firm is earning zero economic profits, which “means that the firm is earning a normal—i.e., competitive—return on that investment.” Stated

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91. *Id.*

92. *Colander, supra* note 40, at 255 (“[I]f the price is lower than the price necessary to earn a profit, firms incurring losses will leave the market and the market supply curve will shift to the left. As market supply shifts to the left, market price will rise. Firms will continue to exit the market and market price will continue to rise until all remaining firms no longer incur losses and earn zero profit. Only at zero profit do entry and exit stop.”).

93. *Pindyck & Rubinfeld, supra* note 43, at 273; see also *Colander, supra* note 40, at 255 (“Zero profit does not mean that entrepreneurs don’t get anything for their efforts. The entrepreneur is an input to production just like any other factor of production. In order to stay in the business the entrepreneur must receive the opportunity cost, or normal profit (the amount the owners of business would have received in the next-best alternative). That normal profit is built into the costs of the firm; economic profits are profits above normal profits.”); *Dominick Salvatore, Managerial Economics in a Global Economy* 332
differently, a firm earning a normal return on its investment “is doing as well . . . as it could by investing elsewhere.”94 As one economist explains, “[i]f the owner manages the firm, zero economic profits also include what he or she would earn in the best alternative occupation (i.e., managing the firm for someone else). Thus, zero economic profits means that the total revenues of the firm just cover all costs (explicit and implicit).”95

In figure 4 above, there is little incentive for the firm to exit the market; similarly, there is little incentive for other firms to enter the market.96 In summary:

[F]irms in long-run equilibrium must produce at the minimum of their long-run average-cost curves. How so? Firms set price equal to long-run marginal cost to maximize their economic

(5th ed. 2004) (“When a perfectly competitive market is in long-run equilibrium, firms break even and earn zero economic profits. Therefore, the owner of the firm receives only a normal return on investment or an amount equal to what he or she would earn by investing his or her funds in the best alternative venture of similar risk.”).  
94. **Pindyck & Rubinfeld, supra** note 43, at 273.  
95. **Salvatore, supra** note 93, at 332.  
96. **Pindyck & Rubinfeld, supra** note 43, at 274 (outlining the conditions under long-run competitive equilibrium).
profits. But long-run equilibrium in the market can be sustained only if price equals long-run average cost so that economic profits are equal to [zero] and returns to employed resources are normal. And both of these conditions are satisfied only where long-run marginal cost equals long-run average cost at the minimum of the long-run average cost curve. 97

The zero economic profit condition of the perfectly-competitive model’s long-run equilibrium “is enormously powerful.” 98 It ultimately explains and demonstrates the importance of the model’s underlying conditions—i.e., (a) numerous price-taking buyers and sellers, (b) each acting independently and rationally, (c) subject to little, if any, entry and exit barriers, (d) all acting upon complete and accurate market information involving the demand and supply for a homogeneous good (e) with little or no governmental intervention and interference or obstruction of the equilibrating forces of supply and demand, with all other potential influences remaining constant or equal (ceteris paribus). When these conditions hold, the perfectly competitive market guides and directs scarce resources to their highest and most valued uses, and thereby minimizes, if not eliminates, waste.

If economic profits are being earned in any given competitive market, rational firms will exit their existing market where they are earning only normal profits and redirect their resources to the more profitable market. Provided there are no barriers to exit and entry, and provided that all competing firms have access to complete and accurate market information, competitive entry will chisel away at the otherwise-available profits until a long-run equilibrium of zero economic, but normal profits is reached. Upon attaining such a long-run equilibrium, rational firms are faced with the choice of (1) being satisfied with earning normal profits, (2) pursuing cost-saving innovations necessary for the firm to earn above-normal, economic profits once again (attracting additional competitive entry), or (3) exiting the market in search of above-normal, economic profits elsewhere.

Option 1 (being satisfied with earning normal profits) is dangerous, especially if other competitors continue to seek cost-saving innovations. Complacency in the market may lead to market exit. Option 2 (pursuing cost-saving innovations necessary to once again earn above-normal, economic profits) is rational from both short- and long-run perspectives. In the short-run, success in the discovery and implementation of cost-saving

98. Colander, supra note 40, at 255 (“[I]t makes the analysis of competitive markets far more applicable to the real world than can a strict application of the assumption of perfect competition. If economic profit is being made, firms will enter and compete [sic] that profit away. Price will be pushed down to the average total cost of production as long as there are no barriers to entry.”).
innovations will likely lead to short-run economic profits. In the long-run, such innovations will continue to drive input costs down, making more goods available at decreasing market prices. Option 3 (exiting the market and searching for above-normal, economic profits elsewhere) may have a temporary, but slight, short-run effect on the market from which the firm is exiting. It will, however, have a countervailing short-run effect on the market that the resources ultimately enter, with both markets subject to a renewed long-run equilibrium of normal profits.99

Figure 5 above illustrates the continued competitive pressure on a firm’s cost structure. As firms exit the market to minimize and/or eliminate their short-run losses and seek normal or above-normal profits elsewhere, the market supply curve ($S'$) contracts and shifts to the left to ($S''$),100

99. See HIRSCH, supra note 80, at 404 for a more detailed discussion on competitive strategy in perfectly competitive markets. “Competitive strategy is the search for a favorable competitive position and durable above normal profits in an industry or line of business.” Id.

100. See HIRSCH, supra note 80, at 74 (“In functional form, a supply function can be expressed as Quantity of Product X Supplied= $f$(Price of X, Prices of Related Goods, Input Prices, Weather, and so on.”). And as previously stated, the market supply curve is derived from the horizontal summation of all of the individual firms’ marginal-cost curves. See supra note 46 and accompanying text. Consequently, as firms leave the market, the market supply curve will shift to the left, especially since it is a function of the number of suppliers
resulting in a new competitive price of \( (P_C^-) \). At \( (P_C^-) \), the firm earns normal profits. The desire to earn economic profits (above normal profits) places long-run downward pressure on a competitive firm’s costs of production. Thus, the firm must innovatively reduce its overall cost structure to continue to earn economic profits. Successful innovation drives a competitive firm’s cost structure down; with its cost curves shifting downward, it will again reap short-run, above-normal, economic profits. Such profits will again attract market entry and, provided all of the underlying conditions of competition continue to hold, a new long-run equilibrium will once again be reached, reflecting lower market prices and zero economic profits.

It is within this context that such a condition is “enormously powerful.”\(^{101}\) The perfectly-competitive model’s condition of zero long-run economic profits nurtures its creative, innovative and progressive nature.

Competition may . . . impel firms to be efficient in seeking a new or improved products and new cost-saving production techniques. With markets in equilibrium and prices just covering costs, such innovations would be the only way by which higher profits could be achieved . . . . Whenever innovating effort takes resources and hence involves costs, the effort will not be made absent the prospect of an appropriate reward. To the extent that innovations become quickly known and quickly copied by others without cost to them, competitive pricing will prevent the innovator from recovering its innovation costs. Thus, it is probable that appropriate allocation of resources to innovative efforts requires at least lags in competitive response and perhaps even further guarantees or prospects of reward . . . . [A]ntitrust policy must be appropriately concerned not only with rules that hinder innovation unnecessarily, but also with rules that are too lenient toward restraints or other limitations on innovation.\(^{102}\)

It is within this context that Adam Smith praised laissez faire political economies for their “great multiplication of the production of all the different arts . . . which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people.”\(^{103}\) Note Smith’s observation was dependent on a qualified,
institutional framework capable of cultivating “a well-governed society.” Thus, the institutional, governing framework of any laissez-faire based society must adopt and administer laws that nurture, promote and/or advance the fundamental tenets of the perfectly competitive economic model and all its underlying conditions.

F. Ceteris Paribus.

The laws of the social sciences, including economics, are generalized statements of “social” or “economic tendencies;”104 they are statements that “a certain course of action may be expected under certain conditions.”105 It has been explained that the law of economics, as with every other science, “undertakes to study the effects which will be produced by certain causes, not absolutely, but subject to the condition that other things are equal, and that the causes are able to work out their effects undisturbed.”106

Almost every scientific doctrine, when carefully and formally stated, will be found to contain some proviso to the effect that other things are equal: the action of the causes in question is supposed to be isolated; certain effects are attributed to them, but only on the hypothesis that no cause is permitted to enter except those distinctly allowed for.107

104. ALFRED MARSHALL, PRINCIPLES OF ECONOMICS 33 (8th ed., MacMillan and Co. 1920) (1890) (discussing how laws are statements of social and economic tendencies); see also EKKEHART SCHLICHT, ISOLATION AND AGGREGATION IN ECONOMICS 1 (1985) (“[E]conomics is not concerned with the idiosyncrasies of particular cases, but looks for general rules linking typical incidents. Usually these rules cannot be distilled stringently from the multitude of individual actions, and economics is bound, hence, to start from assumptions on behavior of aggregates—or ‘representative’ agents—which are linked to individual actions just vaguely.”).

105. MARSHALL, supra note 104, at 87.

106. MARSHALL, supra note 104, at 36; see also SCHLICHT, supra note 104, at 3 (“Economic data are not ultimate data, like the speed of light in physics. Rather they are provisional in nature. This is expressed by means of the ceteris paribus clause. All factors not explicitly considered as variables are assumed to be fixed within an argument. This clause is used, explicitly or implicitly, throughout economics.”).

107. MARSHALL, supra note 104, at 36; see also SCHLICHT, supra note 104, at 1 (“Economic phenomena are the outcomes of a plethora of factors, and economic analysis, unable to tackle them all, is compelled to select those factors which seem to be the most important, and to consider all other influences as data of the analysis. But these data are
The Ceteris Paribus assumption (or condition), while one of the most important operational conditions of the perfectly-competitive model, is probably the one condition that is rarely addressed, likely to be taken for granted, and often ignored. Ceteris Paribus is a qualifying assumption of a generalized law, generally asserting an axiomatic truth assuming “other things being equal.” Although its use as a qualifying economic assumption dates as far back as 1662, John Cairnes (in his 1857 work titled The Character and Logical Method of Political Economy) “is credited with enunciating the idea that the conclusions of economic investigations hold ‘only in the absence of disturbing causes.’” Alfred Marshall further popularized ceteris paribus as a qualifying economic assumption in his Principles of Economics published in 1890. Although ceteris paribus assumptions (or conditions) are critical to the application and operation of generalized conventional economic constructs, they are often cavalierly mentioned for the mere purpose of textural completeness by analysts and academics alike. Whether classified as either a “comparative” or “exclusive” ceteris paribus assumption (or only provisional since they are wandering themselves. One characteristic of economic analysis is, then, that it is built on a moving foundation.” (emphasis added)).


109. See CETERUS PARIBUS LAWS, supra note 108, at 1 (citing J. Persky, Ceteris Paribus, JOURNAL OF ECONOMIC PERSPECTIVES 4, 187-93 (1990) as having traced its use as far back as WILLIAM PETTY, TREATISE OF TAXES AND CONTRIBUTIONS (1662)).

110. See CETERUS PARIBUS LAWS, supra note 108, at 1 (citing J. CAIRNES, THE CHARACTER AND LOGICAL METHOD OF POLITICAL ECONOMY (1857)).

111. See CETERUS PARIBUS LAWS, supra note 108, at 1 (citing ALFRED MARSHALL, PRINCIPLES OF ECONOMICS (1890)) (discussing how the classic example of a ceteris paribus law was made more pervasive by Marshall’s work); see also MARSHALL, supra note 104, at 29-37 (considering the nature of economic laws).

112. See Gerhard Schurz, Ceteris Paribus Laws: Classification and Deconstruction, 57 ERKENNTNIS 351, 351-52 (2002) (“The comparative sense of CP-clauses derives from the literal meaning of ‘ceteris paribus’ as ‘the others being equal.’ A comparative CP-law makes an assertion about functional properties, henceforth called parameters. It claims the increase (or decrease) of one parameter, say f(x), leads to an increase (or decrease) of another parameter, say g(x), provided that all other (unknown) parameters describing the states of the underlying system(s) remain the same. Thus, a comparative CP-clause does not exclude the presence of other ‘disturbing’ factors, but merely requires that they are kept constant.”).

113. See id. at 352 (“In the philosophical debate, however, CP-laws have usually been understood in the different exclusive sense. An exclusive CP-law asserts that a certain state or event-type expressed by a (possibly complex) predicate Ax leads to another state or event-type Cx provided disturbing influences are absent. Ax is called the antecedent and Cx the consequent predicate. Thus an exclusive CP-clause does not merely require keeping all other causally interfering factors constant; it rather excludes the presence of causally
condition), ceteris paribus assumptions nonetheless have a robust significance with respect to the application of generalized economic laws and theories. Accordingly, they should not be understated nor ignored.

If all of the operational conditions of the perfectly-competitive model hold, then microeconomic theory instructs that the model’s efficiencies in consumption, production, and allocation will ultimately result to the favor of society, ceteris paribus (assuming all other things remain equal and/or the absence of all other disturbing influences). To the extent social scientists and economists can identify and eliminate such disturbing influences, such influences remain equal and constant (in their absence). This article specifically addresses the ceteris paribus condition that all market participants are subject to the same geopolitical institutional rules, regulations and conventions. To the extent that different rules, regulations, and conventions apply to competing participants within a single market, such differences will likely have an isolated and disturbing influence on the generalized laws of microeconomics discussed above.

Consequently, in analyzing whether the hiring of an illegal alien worker (unauthorized by law to participate in a specific labor market) may jeopardize the efficiencies of perfect competition, it is important to acknowledge that the generalized laws of competitive efficiency constitute ceteris paribus laws; that is, they necessarily require that all other influences remain equal and/or the absence of all other disturbing influences. The generalized economic laws of efficiency for which the perfectly-competitive model is highly touted will hold and inure to the benefit of society provided the regulations prohibiting illegal alien workers (or for that matter any other cohort of individuals) from participating in a specific labor market apply equally to all market participants (i.e., ceteris paribus). Or alternatively stated, the extent that market rules and regulations are not equally applied to all market participants, the assumption (or condition) of ceteris paribus is violated; that is, the unequal application of laws and regulations relevant to the market will undoubtedly have disturbing influences on the generalized axioms of the perfectly-competitive economic model.

Drawing on prior research, this article will return to its discussion of the ceteris paribus assumption in following sections when specifically addressing whether the act of hiring illegal alien workers actually constitutes an unfair trade practice and/or restraint of trade resulting in a competitive injury.

*interfering factors. In agreement with this exclusive understanding, [it has been] remarked that ‘the literal translation is ‘other things being equal’; but it would be more apt to read ‘ceteris paribus’ as ‘other things being right.’“*
G. Antitrust Injury.

Antitrust injury is an “injury of the type the antitrust laws were intended to prevent.”\(^{114}\) It is regarded to be synonymous with “injury to competition,”\(^{115}\) and is frequently understood to reference the curtailment of output and higher prices.\(^{116}\) Proof of “antitrust injury” is now an essential element of proof in private antitrust actions under virtually all antitrust laws.\(^{117}\) And since the Supreme Court has previously held that “the antitrust laws . . . were enacted for the protection of competition,”\(^{118}\) then it logically follows that the “injury should reflect the anticompetitive effect”\(^{119}\) resulting from a violation of the antitrust laws.

It is from this perspective that the author of this article argues that microeconomics and its model of perfect competition proffer an analytical paradigm for assessing whether market conduct is likely to result in injury to competition, one of the essential \textit{prima facie} elements of a federal antitrust cause of action.

Instruction on the requisite antecedent conditions underlying the perfectly-competitive model not only dramatically simplifies the task of understanding antitrust precedent, but also provides an analytical framework for identifying anticompetitive conduct

\(^{114}\) Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977); see also Cargill, Inc. v. Monfort of Colorado, Inc., 479 U.S. 104, 113 (1986) (reiterating its ruling in \textit{Brunswick} that “a private plaintiff must allege threatened loss or damage ‘of the type the antitrust laws were designed to prevent.’”); Kevin S. Marshall, \textit{The Economics of Competitive Injury}, 45 \textit{B RANDEIS L. J.} 345, 345 [hereinafter Marshall, \textit{Competitive Injury}] (quoting Supreme Court’s definition of antitrust injury in \textit{Brunswick}).

\(^{115}\) Healow v. Anesthesia Partners, 92 F.3d 1192, 1996-2 Trade Cas. ¶ 71,567 (9th Cir., unpublished), \textit{cert. denied}, 520 U.S. 1117 (1996) (holding that there was no antitrust injury because the underlying market structure did not support any inference of “injury to competition”).

\(^{116}\) \textit{See} Sanderson v. Culligan Int’l Co., 415 F. 3d. 620, 623 (7th Cir. 2005) (stating that antitrust law “condemns practices that drive up prices by curtailing output”); \textit{see also}, NCAA v. Univ. of Okla., 468 U.S. 85, 103-07 (1984) (finding that because the NCAA’s television plan restrained prices and output it had an anticompetitive effect); Broadcast Music, Inc. v. CBS, Inc., 441 U.S. 1, 19-20 (1979) (stating that court’s must examine whether the effect of a practice is to decrease output and restrict competition); William H. Page, \textit{The Chicago School and the Evolution of Antitrust: Characterization, Antitrust Injury, and Evidentiary Sufficiency}, 75 \textit{Va. L. REV.} 1221, 1268-71 & 1272 n. 253 (1989) (analyzing legal history of antitrust injury doctrine and finding that most appropriate standard for causation in antitrust injury is whether size of injury that plaintiff claims is in direct proportion to the restriction in output alleged by the practice).

\(^{117}\) \textit{Herbert Hovenkamp, Federal Antitrust Policy, The Law of Competition and Its Practice} 605 (3d ed. 2005) (discussing the elements of antitrust injury that a plaintiff must show to recover).

\(^{118}\) \textit{Brunswick}, 429 U.S. at 488 (quoting Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962)).

\(^{119}\) \textit{Id.} at 489.
independent of precedential constraint. Once the requisite antecedent conditions for competition to thrive are identified and understood, the jurist, the antitrust practitioner, and the economic analyst are in a superior position from which to analyze anticompetitive conduct that may trigger statutory liability.120

If the above conditions must be met [in order] for the perfectly competitive market to thrive, then from a purely economic perspective, it follows that any market conduct or activity that impairs, threatens, suppresses or jeopardizes any one or more of such underlying conditions must be discouraged as a matter of public policy. It is in this context that the [referenced] underlying conditions provide a powerful analytical paradigm for identifying market conduct or activity that may likely constitute an unreasonable restraint of trade, an unfair method of competition, and a competitive injury.121

In the following section, it is demonstrated that a firm that hires an illegal alien worker at below-market wages generates several anticompetitive effects. Such conduct directly and negatively impacts several of the operational conditions of perfect competition, thereby obstructing its ability to create the efficiencies for which it is universally regarded.

IV. THE ECONOMICS OF HIRING ILLEGAL ALIEN WORKERS

While graduate students of business are routinely taught to search for “favorable competitive position[s] and durable above-normal profits,”122 public policy, nonetheless, proscribes the use of “anticompetitive” conduct for such purposes.123 To reiterate,
In [long-run] equilibrium, perfectly competitive markets only offer the potential for a normal rate of return on investment. If many capable competitors offer identical products, vigorous price competition tends to eliminate disequilibrium profits. The only exception to this rule is superior efficiency can sometimes lead to superior profits, even in perfectly competitive markets. Above-normal profits in perfectly competitive industries are usually transitory and reflect the influences of economic rents, luck, or disequilibrium conditions. If above-normal returns persist for extended periods in a given industry or line of business, elements of uniqueness are probably at work.124

To the extent that a competitor achieves above-normal returns, in defiance of the perfectly-competitive model’s condition of long-run zero economic profits, suggests either (1) continued entrepreneurial innovation and enhanced efficiencies in production, or (2) an otherwise suspect imperfectly competitive market driven by unique conditions. In the case of sustained above-normal profits resulting from the hiring of illegal alien workers, such above-normal profits are driven by distorted, below-market labor costs. Such below-market labor costs ultimately create single-firm market power sufficient to jeopardize and threaten several of the perfectly-competitive model’s underlying conditions, i.e., the model’s necessary conditions of price-taking participants, no entry or exit barriers, fully informed buyers and sellers, and ceteris paribus are all at risk by a firm’s unlawful hiring of illegal alien workers, provided such conduct is driven by the firm’s realization of below-market labor costs.

so long as the game is played fairly. When unfair methods of competition emerge, antitrust policy is brought to bear.

124. Hirschey, supra note 80, at 404.
A. *Perfect Competition and the Price-Taking Firm with Long-Run Zero Economic Profits.*

**Figure 6**

The diagram illustrates a rational (profit-maximizing), price-taking firm in long-run equilibrium experiencing zero economic profits. At market price $P_e = P_C$ (competitive price charged by firm), the firm will produce quantity $Q_S$, where the market price line, the firm’s marginal revenue (MR) curve and its perceived horizontal demand curve ($d_{m}$) intersect its long-run marginal cost curve (LMC) at the minimum point of its long-run average total cost curve (LATC). Given that all of the previously discussed underlying conditions of perfect competition hold, the market will produce quantity $Q_e$ units at a market clearing price of $P_e$. At $P_eQ_e$, the market minimizes, if not eliminates, waste in an economic environment of scarcity.

If the firm decides to seek above-normal profits (i.e., economic profits) by engaging in the unlawful hiring of illegal alien workers at a below-market wage rate, such conduct will artificially drive the firm’s entire cost structure downward, with its marginal cost, average total cost, and average variable cost curves all shifting downward, allowing it to again realize above-normal economic profits. The firm’s lower cost structure, however, is not the result of entrepreneurial innovation characterized by
inventiveness, ingenuity, or resourcefulness. Rather, the firm’s lower cost structure is realized by the unlawful activity of hiring illegal alien workers at below-market wage rates. The lower cost structure is the result of the intentional violation of the *ceteris paribus* condition of the perfectly-competitive model. This lower cost structure is the disturbing influence on the model’s generalized efficiencies caused by a firm’s willingness to leverage the unequal economic playing field created by its anticompetitive and unlawful conduct.

**B. Predation and the Violation of Ceteris Paribus.**

**Predation and the Violation of Ceteris Paribus**

**(Distorting Market Input Costs)**

**Figure 7**

Figure 7 above illustrates the downward shift in the firm’s entire cost structure realized by its hiring of illegal alien workers at below-market wage rates. As a result of its unlawful conduct, its long-run marginal cost, average total cost, and average variable cost curves shift to $\text{LMC}'$, $\text{LATC}'$, and $\text{LAVC}'$ respectively. As a rational profit-maximizer, the firm’s output will increase from $Q_s$ to $Q_s'$ should it decide to continue to sell its output at the market price of $P_e = P_C$, allowing it potential above-normal profits equal to the area of rectangle $P_CABP_{P'}$. The firm’s increased output will likely have an impact on the market price to the extent it causes total supply to shift to the right. To the extent that market output exceeds and is to the
right of $Q_e$, the “but for” equilibrium quantity (but for the firm’s unlawful hiring of illegal alien workers), such output will be a distortion of the supply and demand forces, resulting in economic waste. More will be produced than the forces of supply and demand would otherwise dictate, and resources will no longer be driven to their highest valued uses. Furthermore, to the extent market price declines ever so slightly as a result of the firm’s increase in output, other market competitors (who refuse to breach the condition of *ceteris paribus* by engaging in similar unlawful conduct), who otherwise would be experiencing a long-run equilibrium of zero economic profits, will now likely be facing losses at the margins.

C. *Market Power and Sustained, Long-Run Above Normal Profits.*

**Figure 8**

**MARKET POWER & SUSTAINED, LONG-RUN ABOVE NORMAL PROFITS**

As discussed earlier in this paper, \(^{125}\) “it is the revenue obtained from selling one more unit of output that is relevant to the profit-maximizing firm’s output decision. If the firm can sell all it wishes without having any effect on price, the market price will indeed be the extra revenue obtained from selling one more unit.”\(^ {126}\) In perfect competition, a rational, profit-maximizing firm will fix its output where its marginal cost equals its

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125. *See supra* Part III(E), and specifically notes 68, 76-80 and accompanying text.
marginal revenue, which is equal to the market price (MR = MC = P_e). In
perfect competition, firms are consequently price-takers; they each produce
such a negligible amount of the total market supply that none are capable of
affecting price by the amount they choose to produce.

Figure 8 above illustrates the newly created market power\textsuperscript{127} realized
from the firm’s artificially lowered cost structure, resulting from its
unlawful hiring of illegal alien workers at below-market wage rates. The
market price (as determined by the unfettered forces of supply and demand)
equals P_e. However, because of the firm’s newly lowered cost structure (as
reflected by the MC, ATC and AVC curves in Figure 8), the firm now has
the power to increase its output by setting its price somewhere between P_C
= P_e and P_p.\textsuperscript{128}

\textsuperscript{127} See Pindyck & Rubinfeld, supra note 43, at 328 (“Market power: the ability—
of either a seller or a buyer—to affect the price of a good.”); see also ABA Section of
Antitrust Law, Market Power Handbook: Competition Law and Economic
Foundations 5 (2005) (“The economic concept of market power is central to the legal
analysis of most antitrust cases. Like economists, courts have used the term ‘market power’
to describe situations in which a firm or group of firms have control over price and
output.”); 13 Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust
Principles and Their Application 291, ¶2211c (2nd ed. 2005) (“While courts sometimes
define ‘market power’ as involving \textit{either} the power to raise price above cost or else the
power to exclude . . . .”).

\textsuperscript{128} Nicholson, Microeconomic Theory, supra note 60, at 252 (“A firm may not
always be able to sell all it wants at the prevailing market price, however. If it faces a
downward-sloping demand curve for its product, more output can be sold only by reducing
the good’s price. In this case the revenue obtained from selling one more unit will be less
than the price of that unit because, in order to get more consumers to take the extra unit, the
price of all other units must be lowered.”).
D. Predation, Market Power, Arbitrary Market Exit and Barriers to Entry.

Figure 9

**Predation and Market Exit**

![Diagram of Predation and Market Exit]

Figure 9 above further illustrates Firm A’s newly created market power as defined by its ability to set price between the otherwise given market price of $P_e = P_C$ and $P_P$ while continuing to earn above-normal economic profits. In the absence of Firm A’s unlawful conduct of employing illegal alien workers at below-market wage rates, Firm B will experience long-run zero economic profits, or rather, normal-profits. Firm A, however, can prey on Firm B and others similarly situated in the market by wielding its market power by setting price below the otherwise given market price, and thus, setting price below Firm B’s average total cost curve at $P_F$. In such a situation, Firm B has no choice but to meet Firm A’s price of $P_P$, especially since Firm B is a price-taker by definition (unless, of course, Firm B also chooses to unlawfully employ illegal alien workers at below-market wage rates.). At a price equal to $P_P$, while Firm A will nonetheless realize above-normal economic profits, Firm B will not. Since price $P_P$ is less than Firm B’s average total costs, Firm B will only minimize its losses at a price equal to $P_P$. Consequently, at price $P_P$, Firm B should consider exiting the market. Given the presence of fixed costs, the firm’s average variable costs are less than its average total cost, and the
“firm is indeed losing money.”

The fact that Firm A’s lowered cost structure driven by its decision to unlawfully hire illegal alien workers at below-market rates rather than some transient market condition suggests that Firm B will continue to sustain losses at price $P_F^*$. Thus, there is little reason for Firm B to remain in the market and await a new long-run equilibrium where it will again earn normal profits on its capital investment. Firm B’s options are to either exit the market or adopt Firm A’s unlawful conduct and thereby level the economic playing field.

At prices $P_F^*$ and $P_F$, there is little doubt that Firm B must exit the market. Prices $P_F^*$ and $P_F$ are less than Firm B’s average variable costs ($P_F^*$ and $P_F < AVC$). Again, Firm B has little choice but to exit the market or adopt Firm A’s unlawful conduct of hiring illegal alien workers at below-market costs.

Firm A’s lowered but distorted input costs realized by its efforts to unlawfully employ illegal alien workers at below-market wage rates, at a minimum, discourage future market entry, and more realistically are likely to constitute formidable, if not impenetrable, barriers to market entry.

129.  Pindyck & Rubinfeld, *supra* note 43, at 259 (“The firm should therefore consider shutting down. If it does, it earns no revenue, but it avoids the fixed as well as the variable cost of production.”); see also Hirshey, *supra* note 80, at 389 (“Under perfect competition, the firm will either produce nothing and incur a loss equal to its fixed costs, or it will produce an output determined by the intersection of the horizontal demand curve and the marginal cost curve. If price is less than average variable costs, the firm should produce nothing and incur a loss equal to total fixed costs. Losses will increase if any output is produced and sold when $P < AVC$. If price exceeds average variable cost, then each unit of output provides at least some profit contribution to help cover fixed costs and provide profit. The minimum point on the firm’s average variable cost curve determines the lower limit, or cutoff point, of its supply schedule.”); Salvatore, *supra* note 93, at 331 (“Another way of looking at this is to say that . . . the excess of [price] . . . over the firm’s average variable cost ($AVC$) . . . can be applied to cover part of the firm’s fixed costs . . . . Thus, the firm minimizes its losses by continuing to produce its best level of output.”).

130.  Pindyck & Rubinfeld, *supra* note 43, at 259-60; see also Colander, *supra* note 40, at 259 (“The shutdown price for a perfectly competitive firm is a price below the minimum point of the average variable cost curve.”); Hirshey, *supra* note 80, at 390 (“Price fails to cover variable costs at price below . . . the minimum point of the $AVC$ curve, so this is the lowest price at which the firm will operate.”); Mansfield & Yohe, *supra* note 52, at 316-17 (“A price-taking firm maximizes economic profits (or minimizes losses) in the short run by producing the output for which marginal cost equals price unless the price is lower than the minimum of its average variable-cost curve. In that case, the market price is lower than the average variable cost of producing any and all levels of output, so the firm will minimize losses by discontinuing production.”); Nicholson, *supra* note 60, at 271 (“If price falls below minimum $AVC$, the firm’s profit maximizing choice is to shut down and produce nothing.”); Salvatore, *supra* note 93, at 331 (“Thus, point $H$ is the shut-down point of the firm. Below point $H$, the firm would not even cover its variable costs, and so by going out of business, the firm would limit its losses to be equal to its total fixed costs.”).

From a purely economic perspective, the unlawful act of hiring illegal alien workers at below-market wage rates at a very minimum discourages, if not eliminates competition. Moreover, to the extent such conduct ultimately leads to the failure of several operational conditions necessary for competition to thrive, such conduct results in a competitive injury to the market place, and ultimately society.

First, such conduct threatens, jeopardizes, and/or impedes several underlying conditions of the perfectly-competitive model. It violates the assumption that all buyers and sellers are price–takers, giving the hiring firm significant market power. It creates an environment of exclusion nurtured by the creation of entry and exit barriers at both the input and output levels of competition. It generates distorted output levels driven by inaccurate below-market cost data. And finally, it violates the ceteris paribus assumption to the extent that market competitors seek profit-maximization within a very unstable, asymmetrical geopolitical infrastructure where different rules apply to different participants, due to both the failure to adhere to statutory proscription and of the sovereignty to enforce breaches thereof.

Second, the conduct of hiring illegal alien workers at below-market wage rates attacks and vitiates the central nervous system of the perfectly-competitive model, and accordingly, will likely lead to exclusion, higher prices and curtailed output. Once a firm realizes artificial below-market costs from its unlawful activities, there is little its competitors can do but to either exit the market or join in the unlawful activity.

Finally, for competition to thrive, the geopolitical playing field must be level for all participants. There is simply no pro-competitive business justification for ignoring the geopolitical landscape upon which economic battles are won or lost. The rules must be equally applied to all economic combatants; otherwise, an asymmetrical application of the rules of the competitive market place will annihilate the natural utility/profit maximizing incentives that drive the economy.

V. RELEVANT JURISPRUDENTIAL ECONOMICS AND ANTITRUST PRECEDENT.

A. Sherman Antitrust Act §1 and Unlawful Restraints in Trade.

Section 1 of the Sherman Antitrust Act states that “[e]very 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.\textsuperscript{131}\textsuperscript{131} Of course, common law precedent qualifies Section 1 by explaining that only concerted activity that results in an “unreasonable” restraint of trade is actionable under the Sherman Act.\textsuperscript{132}\textsuperscript{132} Although it is a vertical agreement/combination between a firm and its unlawful labor force that is at issue, such an agreement/combination nonetheless constitutes an unreasonable restraint of trade to the extent that it interferes with the unfettered forces of supply and demand as it determines an equilibrium quantity and a market clearing price. Moreover, such an agreement/combination further constitutes an unreasonable restraint of trade to the extent that it restrains other horizontal competitors from entering and/or otherwise causes them to arbitrarily and hastily exit the market. Finally, the unreasonableness of the act is certainly grounded on its unlawfulness; its illegality is counterintuitive to notions of reasonableness.

B. Sherman Antitrust Act § 2, Attempts to Monopolize and Predation.

Section 2 of the Sherman Antitrust Act states that “[e]very 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.”\textsuperscript{133}\textsuperscript{133} The act of unlawfully hiring illegal alien workers at below-market wage rates is clearly predatory; and to the extent that it has a probability of succeeding in driving competitors out of, as well as barring other would-be competitors from entering the market, such an act is unlawful under Section 2 of the Sherman Antitrust Act.

Although antitrust law is not usually concerned with setting a limit on price competition, under certain conditions low prices may have anticompetitive effects. A firm that drives out, excludes, or disciplines rivals by selling at non-remunerative prices is not competing on the merits, but engaging in behavior that may properly be called predatory. Antitrust therefore includes a “predatory pricing” offense within the proscription of

\textsuperscript{132} Standard Oil Co. of New Jersey v. United States, 221 U.S. 1, 58 (1911) (revealing that under this view, the purpose of the statute is not to restrain the right to make and enforce contracts, whether resulting from combinations or otherwise, which did not unduly restrain interstate or foreign commerce; but to protect that commerce from being restrained by methods whether old or new, which would constitute an interference, and thus would qualify as an undue restraint); see also Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 127 S. Ct. 2705, 2712 (2007) (“[T]he Court has repeated time and again that § 1 “outlaws only unreasonable restraints.””) (quoting State Oil Co. v. Kahn, 522 U.S. 3, 10 (1997)).
monopolization in §2 of the Sherman Act . . . .134

If a firm (taking advantage of its distorted cost structure resulting from its unlawful hiring activities) attempts to exclude its rivals by pricing below the otherwise long-run, market-average total costs confronting its law-abiding rivals, it is fair to say that its behavior is predatory.135

In many ways, the case of a firm hiring illegal alien workers at below-market wages and proceeding to price its product below its otherwise would-be average total cost curve is analogous (but without the sacrifice of short-run profits) to the predatory pricing cases reviewed in most Antitrust textbooks. The practice of predatory pricing has been classically described to involve

an immediate sacrifice of profits through unreasonably low prices. These low prices destroy rivals or intimidate them from selling at a lower price than the defendant charges. Then follows a “recoupment” period, during which the defendant enjoys monopoly prices or profits. In order for predatory pricing of this variety to be rational strategy, recoupment gains, discounted to present value, must exceed the immediate losses from the predatory campaign.136

Contrary to the classic predatory pricing case, profit is not sacrificed in the short-run when a firm unlawfully hires illegal alien workers at below-market wages and proceeds to price its product below its otherwise would-be average total cost curve. Throughout the firm’s campaign of predation, it has the capacity to earn above-normal economic profits. The issue of whether the firm will likely recoup the expenses of its predatory conduct is therefore moot. There is little or no danger of failure; rather, there is a dangerous probability that the firm will succeed with respect to its exclusionary intent.

134. PHILLIP E. AREEDA AND HERBERT HOVENKAMP, FUNDAMENTALS OF ANTITRUST LAW §7.03a,7-41 (3d ed. 2008).

135. Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 605 (1985) (“If a firm has been ‘attempting to exclude rivals on some basis other than efficiency,’ it is fair to characterize its behavior as predatory.” (quoting ROBERT BORK, THE ANTITRUST PARADOX 160 (1978)); see also 3 PHILLIP AREEDA & DONALD F. TURNER, ANTITRUST LAW 78 (1978) (“Thus, ‘exclusionary’ comprehends at the most behavior that not only (1) tends to impair the opportunities of rivals, but also (2) either does not further competition on the merits or does so in an unnecessarily restrictive way.”).

136. PHILLIP E. AREEDA & HERBERT HOVENKAMP, 3A ANTITRUST LAW, AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION 22 (3d ed. 2008).
C. *Per Se Unlawfulness.*

The predatory conduct of unlawfully hiring illegal alien workers at below-market wage rates is *per se* unlawful. The Supreme Court has resorted to *per se* rules when the restraint being analyzed “would always or almost always tend to restrict competition and decrease output.”\(^{137}\) For a particular restraint or activity to justify *per se* treatment, the restraint or activity must have “manifestly anticompetitive” effects\(^{138}\) and “lack . . . any redeeming virtue.”\(^{139}\) The predatory act of unlawfully hiring illegal alien workers at below-market wage rates is manifestly anticompetitive for all of the reasons discussed above. Moreover, one is hard pressed to find any redeeming virtue in a predatory activity, which is statutorily unlawful.

D. *Unfair Methods of Competition—The California Model.*

In closing, it merits noting that the California Unfair Competition Law\(^{140}\) (which is often considered analogous to the Federal Trade Commission Act\(^{141}\)) defines the term “unfair competition” to include “any unlawful, unfair or fraudulent business act or practice . . . .”\(^{142}\) Essentially, under California law, any unlawful business act may constitute a method of unfair competition. Accordingly, any unlawful business act is independently actionable under the California Business and Professions Code.\(^{143}\) As one California Appellate Court explained, “[t]he ‘unlawful’
practices prohibited by section 17200 are any practices forbidden by law, be it civil or criminal, federal, state or municipal, statutory, regulatory, or court-made.”

For example, in the California case, Stop Youth Addiction, Inc. v. Lucky Stores, Inc., a non-profit organization brought suit under California’s Unfair Competition Law against the Defendant and numerous other retailers in Northern California for selling cigarettes to minor children in violation of the state’s penal code. In reversing the trial court’s order sustaining the defendant retailer’s demurrer, the California Court of Appeals observed that:

Approximately 90 percent of cigarette sales in northern California are to children or to adults who were addicted as children and who would like, but are unable, to quit smoking. Consequently, [Defendant] has unjustly enriched itself in an amount equal to 90 percent of its gross profits from the sale of cigarettes.

In reaching its decision, the court noted that:

The UCL [Unfair Competition Law] defines “unfair competition” as “. . . any unlawful, unfair or deceptive, untrue or misleading advertising . . . .” As we recently explained in reviewing the scope and purpose of the unfair competition law and its remedial provisions, “[t]he Legislature intended this ‘sweeping language’ to include ‘anything that can properly be called a business practice and that at the same time is forbidden by law.’”

The broad reach of the California statute accommodates the ceteris paribus condition of the perfectly-competitive model to the extent that it nurtures a level playing field for all market competitors and proscribes as a matter of law any and all disturbing influences resulting from the engagement of an unlawful act for the purpose of gaining an advantage in the market place. Under such a model, the unlawful act of hiring illegal alien workers at below-market rates unequivocally constitutes an unfair method of competition.

144. Saunders, 33 Cal. Rptr. 2d at 441.
145. 950 P.2d 1086 (Cal. 1998).
146. Id. at 1089.
147. Id. at 1090, (citing Bank of the West v. Superior Court, 2 Cal.4th 1254, 1266 (Cal. 1992)) (internal citation omitted).
VI. CONCLUSION

The central issue addressed by this article is whether the hiring of illegal alien workers at below-market wage rates may constitute an unfair trade and/or anticompetitive practice with exclusionary effects. It is important to understand that the unfair/anticompetitive nature of the referenced act is driven by a below-market wage rate that is often realized because of the illegal nature of the employment relationship. Although certainly suspect, transactions involving the employment of illegal alien workers may not rise to the level of anticompetitive conduct if such employment is at or above market wage rates. However, when such employment is effectuated at below-market rates, rates regulated by state or federal minimum wage laws, or rates that are otherwise uniquely available in black-market circumstances, such employment practices are predatory and have little redeeming values.

It might be suggested that the anticompetitive nature of the referenced employment practice is a function of whether firms engaged in such practices will likely be subjected to fines or other penalties as mandated by U.S. immigration laws. One might argue that the extent to which a firm is likely to face enforcement penalties due to its hiring of illegal workers, such penalties will push the firm to raise its input costs back to competitive market levels. Under these circumstances, it is unlikely that such employment practices will have a high probability of success in terms of causing any exclusionary effects. The critical question, however, is not whether the government has enforced immigration laws by way of fine or sanction, but whether the hiring of illegal alien workers has allowed a firm to reduce its costs to the exclusion of its law-abiding competitors (regardless of the government’s enforcement activities). If there is little or no enforcement of the law prohibiting the hiring of illegal alien workers such that a firm is willing to take the risk of hiring such workers, then the firm’s employment practice is anticompetitive and market distorting insofar as it results in such workers being hired at below-market wages. If it does not lead to such workers being hired at below-market wages, then there is no anticompetitive advantage gained by such a practice.

On the other hand, even if there is aggressive enforcement of the law prohibiting the hiring of illegal alien workers, such enforcement does not operate as a guarantee to remedy the anticompetitive nature of the employment act, unless such enforcement has the effect of raising the firm’s costs back to competitive market levels. Thus, the economic question is whether the act of hiring illegal alien workers allows a firm to artificially reduce its cost structure to the exclusion of the other law-abiding firms who refuse to violate the law, regardless of existing enforcement policies. Additionally, given the lagged effect of any regulatory
intervention in an otherwise failed competitive market place, such intervention may be too little, too late; especially if the injury to the competitive market place has already resulted in the artificially premature exit of competitive firms.

Collateral but related issues raised by the above analysis meriting further consideration include:

(1) Will a private cause of action under state or federal antitrust laws for the hiring of an illegal alien worker ultimately facilitate the enforcement of U.S. immigration laws? If so, what are the policy implications with respect to same? Will such private causes of action serve the public interest from a private attorney general perspective?

(2) Will the United States’ immigration law’s penalty and sanction provisions merit review to the extent they merely reference arbitrary penalty amounts? Given the potentially anticompetitive effect resulting from a firm’s violation of United States’ immigration law, should Congress at least consider amending the penalty provisions of such laws and allow for the imposition of penalties and sanctions equal to the anticompetitive injury inflicted on the relevant market under examination?

(3) Does the probability of enforcement impact the strategic games competitors play within various market structures such as perfect competition, monopolistic competition, oligopoly, duopoly, and/or monopoly?

(4) Will the *ceteris paribus* assumption (or condition) play an important role in other policy scenarios such as constitutional notions of equal protection, deterrence of other antisocial conduct, and/or institutional legitimacy of public enforcement strategies?

In closing, the hiring of illegal alien workers at below-market wages may indeed constitute an unlawful restraint of trade and/or unfair trade practice under both state and federal law. Enforcement of the statutory prohibitions against the hiring of illegal alien workers, whether by criminal prosecutions under the United States immigration laws or by civil (or criminal) prosecutions under state and federal antitrust laws, is critical to correcting and/or minimizing the accompanying economic distortions and
inefficiencies that are generated by such hiring practices.