

**Pricing Strategies and Litigation Risks:
An Economic Analysis of the Downstream Petroleum Industry**

Michael D. Noel¹
Texas Tech University

April 16, 2015

¹ Dr. Michael D. Noel, Associate Professor, Department of Economics, Texas Tech University, Lubbock, TX, michael.noel@ttu.edu. I would like to thank David Harris of Greensfelder, Hemker & Gale PC, and seminar participants at the 2013 ABA Petroleum Marketing Attorneys Meeting in Washington, DC for helpful comments on an earlier draft.

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Abstract

Economics lies at the center of many antitrust cases. Economic experts are often proffered up on both sides to give opinions on either the benefits or potential harm of the specific practices in dispute. As decisions can sometime turn on this battle of opinions between experts, it is important for litigators to have a working knowledge of the economics underlying such arguments. In this article, I discuss the economics behind a series of recent controversial pricing patterns and strategies that have spawned antitrust (and related) activity in the downstream petroleum industry. Under both federal and state laws, I discuss how legislators and courts have tried to deal with these behaviors, and argue that, in some cases, the laws (or interpretation of those laws) can be counterproductive and harm competition. The practical consequence to downstream fuel sellers is that behavior which is perfectly pro-competitive and unilateral in nature still carries an unavoidable systematic risk of litigation. The first risk I discuss arises from parallel pricing. Well known in general, and not illegal in itself, parallel behaviors still spawn substantial antitrust activity in the petroleum industry. I focus on two particular and unusual parallel pricing patterns specific to downstream petroleum that have caused recent international controversy. A second litigation risk sellers face arises from (unilaterally) pricing too high in states with so-called "Price Gouging" laws and a third risk arises from (unilaterally) pricing too low in states with Sales-Below-Cost laws. Finally, the fourth litigation risk arises from the use of bundled discounts between fuel and non-fuel sales. Usually challenged under Sales-Below-Cost laws not well suited to address them, bundled discounting at the retail level has become an increasingly common pricing technique in the ongoing modernization of the downstream petroleum industry.

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I. INTRODUCTION

Economics lies at the center of many antitrust cases. Economic experts are often proffered up on both sides to give opinions on either the benefits or potential harm of a specific practice in dispute. As decisions can sometime turn on this battle of opinions between experts, it is important for litigators to have a working understanding of the economic principles underlying such arguments. In this article, I discuss the economics behind a series of recent controversial pricing patterns and strategies that have spawned antitrust (and related) activity in the downstream petroleum industry.

The petroleum industry has long been subject to concerns over anticompetitive behavior. Few industries have been scrutinized as closely or as often, in part because of the importance of energy in the economy and its impact on consumers' budgets, and in part because of a general, but not well defined, wariness about its competitiveness. The Federal Trade Commission (FTC) has investigated the industry dozens of times over the past twenty-five years, in search of Sherman Act and other federal antitrust violations, but has routinely found no systematic evidence of widespread antitrust problems. Still, rarely does a large gasoline price spike pass without a call by a member of Congress or from the popular press for a new investigation.

In addition to federal antitrust law and state versions of federal statutes, additional state laws further restrict the pricing behavior of downstream petroleum sellers. First, many states have implemented so-called "Price Gouging" laws which limit how high a price downstream sellers can charge, generally following a natural disaster or other declared emergency. Second, many states have implemented so-called Sales-Below-Cost laws which limit how *low* a price a downstream fuel seller can legally charge. Interestingly, some of these laws are specific to downstream petroleum sales, reflecting the uniquely heightened concern with the industry.

In this article, I examine four general types of pricing patterns and strategies that cause litigation risks in downstream petroleum, and discuss the economics that underlie these behaviors. Under both federal and state laws, I discuss how legislators, litigators, and courts have dealt with these behaviors, and argue that in some cases the laws (or interpretation of those laws) conflict with welfare economics and actually harm competition. The practical consequence to downstream fuel sellers is that behavior which is perfectly pro-competitive and unilateral in nature still carries an almost unavoidable systematic risk of litigation.

The first litigation risk arises from parallel pricing and other parallel behaviors. Well known and not illegal in itself, parallel behaviors can still spawn antitrust activity in downstream petroleum, when sufficient

“plus factors” are present. It is a practical risk that is difficult to fully avoid, since strong competition forces prices to move closely together and many so-called “plus factors” cited as evidence of conspiracy in fact do not suggest conspiracy at all. A recent price fixing case involving gasoline retailers on Martha’s Vineyard illustrates. I also discuss two forms of parallel pricing patterns specific to downstream petroleum that have not been well known, and only recently have caused international controversy. The first has become known as Edgeworth Price Cycles” and the second as “Rockets and Feathers” pricing.

A second litigation risk which downstream fuel sellers face arises from (unilaterally) pricing too high in the roughly half of all states with so-called “Price Gouging” laws. While the typical justification of these laws is to ensure fairness in a state of emergency, I discuss how they exacerbate shortages in an emergency and *eliminate* beneficial price competition, just when it is needed the most. The vagueness of the laws, especially in combination with volatile upstream pricing during times of market upheaval (and diverging opinions on what the relevant downstream margin really was), creates an inherent and difficult-to-manage risk. The recent experience following Hurricane Sandy illustrates the issues.

A third litigation risk arises from (unilaterally) pricing too low at the retail level in the roughly half of all states with “Sales-Below-Cost” laws. These laws are anti-competitive. While the usual justification is that they seek to prevent predatory pricing and the elimination of legitimate competition, in reality, rarely is there a realistic probability of successful predation and therefore the law instead does quite the opposite—it harms competition by keeping prices artificially high. Unlike the federal standard, claims of predatory pricing under Sales-Below-Cost laws do not require a showing of the probability of long term recoupment of short run losses, but rather only a showing that the price is below cost (or that the margin is below some legislated minimum). Thus, in the downstream fuel industry, false positives are ubiquitous and enforcement of the law itself harms legitimate competition and slows innovation and development.

The practical litigation risks to downstream firms are several. First, costs are imprecisely measured, and when combined with razor thin margins, above-cost-pricing can easily be mistaken for below-cost-pricing. Second, with fuzzy boundaries and a wide range of vague or yet-to-be-tested statutes in different states, Sales-Below-Cost laws force firms to strike a difficult balance between being competitive and accepting the greater litigation risk that comes with being too competitive.

The risk is even more difficult to manage with multiproduct firms, such as fuel retailers. No longer are downstream firms selling just fuel, but rather a wide range of products in attached or affiliated convenience stores, restaurants, department stores, and other operations. Few state laws give any

guidance on how to handle such situations, and there lacks a consistent legal standard on which “basket” of products is relevant for price-cost calculations, or how to allocate costs to the products in that basket. A series of recent cases illustrates some issues.

Finally, the fourth litigation risk arises from the use of bundled discounts combining fuel and non-fuel sales. Bundled discounting at the retail level has become a popular pricing technique, as increasingly firms that sell fuel are primarily convenience store chains, supermarkets or hypermarkets, rather than stand-alone sellers. Filling up is now a part of a larger one-stop-shopping retail enterprise. The increased use of bundling results from the integration of fuel into these larger enterprises, and reflects a generally pro-competitive structural transformation in the industry.

Bundled discounts are usually challenged under Sales-Below-Cost laws, but such laws are not well suited to address them. Legal treatment does not always account for the multiproduct nature of the industry or the benefits of competition and lower prices at the bundle level. Rather, a discount on gasoline for a minimum purchase of groceries is somehow treated differently than a discount on hamburger buns for buying hamburger patties, or a “free fountain drink with purchase of an entree” promotion, or even a discounted price on a fast food “combo meal” *vis a vis* items a la carte.

Firms again must strike a difficult balance between being competitive and accepting the greater litigation risk that comes from being too competitive. Additional litigation risk comes from continued legal uncertainty and widely differing opinions on how to measure costs and margins, as well as what the relevant “basket” of goods should be. A series of recent cases brought under state Sales-Below-Cost laws illustrates the issues.

I now consider each of the four patterns and strategies in more detail.

II. PATTERNS AND STRATEGIES

A. Parallel Pricing

Any discussion of litigation risks in the downstream petroleum industry should begin with at least a brief discussion of parallel pricing. Parallel pricing and other parallel behaviors continue to give rise to price fixing suspicions and form the backbone of many price fixing cases. In the first subsection, I discuss litigation risks resulting from “general” price uniformity and parallel price changes. In the second subsection, I discuss a unique and controversial form of parallel pricing, so-called “Edgeworth Price Cycles”, which has been associated with both price fixing *and* predatory pricing cases. In the third

subsection, I discuss another unique and controversial form of parallel pricing, so-called “Rockets and Feathers” pricing, which has been cited as an example of widespread tacit collusion.

A common theme runs through all three subsections. While price fixing is a per se Sherman Act Section 1 violation, parallel pricing is *not* economic evidence of price fixing or other antitrust wrongdoing. Parallel behaviors are as consistent with competition in perfectly-competitive and oligopolistic markets as with collusion.

1. Price Uniformity with Parallel Price Changes

Price uniformity and parallel pricing result naturally in both highly competitive and oligopolistic markets. In the case of highly competitive markets with many firms, market forces cause prices to cluster together near cost and toward each other, creating price uniformity. As wholesale costs rise and fall, prices move in parallel. Similarly, in the case of oligopolistic markets where firms are few, the interdependence of pricing decisions again creates price uniformity and parallel pricing. Since every pricing choice impacts all firms in a material way, each firm must pay attention to what others are doing and respond to those choices when they occur—to do otherwise would be irrational and eventually put the firm out of business. As a result, prices follow each other closely, whether or not they follow costs to the same degree.

In the early days of antitrust enforcement, courts were more open to parallel pricing and parallel behaviors in its own right as circumstantial evidence of collusion. But in its 1954 decision, *Theatre Enterprises v. Paramount Film Distributing Corp.*, the Supreme Court made clear that parallel behavior was not enough.² The Court stated “this Court has never held that proof of parallel business behavior conclusively establishes agreement or...that such behavior itself constitutes a Sherman Act offense”. They famously noted “conscious parallelism has not read conspiracy out of the Sherman Act entirely”.³

Three decades later, in *Matsushita Electrical Industrial Co. v. Zenith Radio Corp.*, the Supreme Court addressed the standard of proof in Section 1 cases again, emphasizing that “conduct as consistent with permissible competition as with illegal conspiracy does not, standing alone, support an inference of antitrust conspiracy.”⁴ This is the case with parallel pricing. The bar was raised again in *Bell Atlantic Corp.*

² *Theatre Enterprises v. Paramount Film Distributing Corp.* 346 U.S. 537 (1954), hereafter “*Theatre Enterprises*”.

³ *Theatre Enterprises*, at 541.

⁴ *Matsushita Electrical Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986), hereafter “*Matsushita*”, at 588.

v. Twombly,⁵ when the Supreme Court ruled that a mere showing of parallel activity fell short of the standard to make a plausible antitrust claim and survive summary judgement.

Nonetheless, parallel pricing together with so-called “plus factors” can and does still form the basis of circumstantial price fixing cases. Examples of purported “plus factors” include explicit communication between parties (especially just prior to large, parallel price changes), transactions between parties seemingly favorable to one side (suggesting a hidden side payment or *quid pro quo*), identical bidding behavior on disparate products, efforts to maintain fixed market share allocations, and other behavior in the collective interest but not rationally in one’s own self-interest. Some plus factors have been dubbed “super plus factors”. If there are sufficient plus factors that, taken together, would reasonably rule out the possibility of non-collusive behavior, successful prosecution on circumstantial evidence is possible.

The legal standard for proving conspiracy on the basis of circumstantial evidence is and should be very high. Marketplace interactions can be complex and absent direct evidence of conspiracy, there is a strong potential for false positives.

Parallel pricing with plus factors was at the center of a recent price fixing case in the context of gasoline retailing. In *White v. R.M. Packer Co., Inc.*, owners of four gasoline stations on Martha’s Vineyard were accused of price fixing, absent direct evidence.⁶ Plaintiffs claimed parallel pricing and additional plus factors that included high prices and profits relative to the mainland.⁷

The First Circuit upheld the district court’s ruling for the defendants, stating that many of the plaintiff’s proposed “plus factors”, which included high prices, high profits, price uniformity, and parallel price changes, were all consistent with competition (even if weak). The Court stated “many so-called plus factors simply demonstrate that a given market is chronically non-competitive without helping to explain whether agreement or conscious parallelism is the cause.”⁸ The Court wrote about two other proffered plus factors: “high barriers to entry and inelastic demand are two hallmarks of oligopolistic markets susceptible to successful parallel pricing practices, [but] neither helps to distinguish between agreement and mere conscious parallelism as the root cause of those practices.”⁹ Note that even while dismissing

⁵ *Bell Atlantic Corp. v. Twombly* 550 U.S. 544 (2007), hereafter “*Twombly*”.

⁶ *White v. R.M. Packer Co., Inc.*, 635 F.3d 571 (1st Cir. 2011), hereafter “*White*”.

⁷ Plus factors generally refer to factors *other than* parallel behaviors and prices, even though parallel behaviors and prices are not a prerequisite for collusion.

⁸ *White*, at 581.

⁹ *White*, at 582.

the claim, the Court used the term “*successful* parallel pricing practices”, suggesting parallel pricing may be potentially a goal of oligopolists to be achieved, in and of itself, rather than just the natural consequence of oligopolistic competition.

Other plus factors in *White* were potentially more problematic for the defendants. There was evidence of some communication among gasoline station owners and evidence that one owner made a loan at a seemingly preferential rate to another. In this case the evidence did not rise to the necessary standard, but such evidence can be a red flag for prosecutors and courts.

Two Australian retail gasoline price fixing cases demonstrate the difficult subjective nature of what “reasonably rules out” non-collusive behavior. In *ACCC v. Leahy Petroleum (Ballarat)*, telephone records were used to successfully argue that gasoline station owners in the town of Ballarat conspired with one another to price in parallel. Evidence was shown that phone call activity between stations was high on days when stations increased prices by large and similar amounts.¹⁰

A few years later, an almost identical set of evidence was used to argue a price fixing conspiracy in the nearby town of Geelong. However, it met with the opposite result. In *ACCC v. Leahy Petroleum (Geelong)*¹¹, the federal court rejected the claims on the grounds that, absent knowing the content of the telephone calls, telephone records were insufficient for showing agreement.

As a matter of economics, price data alone cannot prove a conspiracy, and direct evidence is necessary. In Madison Heights, Michigan, the Attorney General successfully prosecuted five station operators of price fixing on the strength of evidence from a whistleblower.¹² Similarly, in eastern Canada, the Competition Bureau obtained guilty pleas from several dozen individuals in at least ten different companies in conspiracies in Ontario and Quebec after insider tips. Phone conversations were wiretapped providing direct evidence of conspiracy.¹³

¹⁰ *Australian Competition and Consumer Commission v Leahy Petroleum Pty Ltd.* [2004] FCA 1678 (Ballarat). The Australian appellate court later overturned one of the convictions on the grounds that since the petitioner only received phone calls, no agreement by that operator could be inferred. *Apco Service Stations Pty Ltd v. ACCC* [2005] FCAFC 161.

¹¹ *Australian Competition and Consumer Commission v Leahy Petroleum Pty Ltd.* [2007] FCA 794 (Geelong).

¹² See Attorney General of Michigan website, at <http://www.michigan.gov/ag/0,1607,7-164--257588--,00.html#noprint>, accessed March 9, 2013.

¹³ See Competition Bureau of Canada, Bureau Activities (in gasoline cartels), at <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/00235.html>, accessed March 9, 2013.

Meanwhile, in Eau Claire, Wisconsin, a recent investigation into high and parallel pricing was closed for lack of evidence.¹⁴ Nationally, FTC investigations mandated by Congress to investigate parallel behaviors at the wholesale or retail level routinely lead to little. But the risk of litigation from parallel pricing continues to be substantial.

2. Asymmetric Retail Gasoline Price Cycles

One particular form of parallel pricing relevant to gasoline retailing and has attracted both national and international attention. In many cities around the world, including many in the Midwest United States, gasoline prices follow a rapid asymmetric price cycle over time that resembles a sawtooth pattern. Figure 1 shows recent cycles for the cities of Indianapolis and St. Louis.

The price spikes that occur in these cities have drawn widespread skepticism of conspiracy. An example illustrates. Imagine the price of gasoline is about \$3.75 a gallon at most stations across town, but then, one day, a retailer suddenly raises its price to \$4.00. Within hours, other retailers observe and match the price increase and by the next day, all stations are selling gasoline at \$4.00 a gallon and making substantially higher margins. Moreover, it recurs regularly, often every week or two, even as wholesale prices remain flat. Without a cost-based justification for the increases, the price spikes have been cited as obvious examples of collusion.

Recent economic research tells a different story. The price spikes are part of a larger phenomenon known as “Edgeworth Price Cycles” and they are consistent with *stronger*, rather than weaker, price competition.¹⁵ While the large price spikes are surely noticeable, less noticeable is that prices are continually ratcheting downward the rest of the time. It turns out that cycles are triggered by price aggressive firms which undercut each other a penny or two each day (or even each *hour*) to steal market share back and forth in the very short run. When prices bottom out near wholesale cost (and well below prices in cities without cycles), firms are often in a money losing situation, after accounting for daily fixed costs. Eventually one firm relents and increases its price a substantial amount, then others follow (with a lag to capture some extra share), and now with higher prices, almost immediately start undercutting again.

¹⁴ http://www.leadertelegram.com/news/daily_updates/article_7c55d046-1f7e-11e1-bee6-001871e3ce6c.html, accessed March 9, 2013.

¹⁵ Noel, Michael D. (2007). “Edgeworth Price Cycles, Cost-based Pricing, and Sticky Pricing in Retail Gasoline Markets”, *Review of Economics and Statistics*, 89:2, pp. 324-334.

In spite of the high degree of parallelism, economic research shows that Edgeworth Price Cycles are pro-competitive. They are more common in markets with more retailers and more independents—characteristics of competitive rather than collusive markets.¹⁶ Average gasoline prices are lower in cities with Edgeworth Price Cycles than in cities without, not more.¹⁷ (That is, the higher prices at the cycle peaks do not fully offset the lower prices at the cycle troughs.) Finally, to the extent that consumers can time purchases to cycle troughs, average quantity-weighted prices in cycles are lower still.¹⁸

Edgeworth Price Cycles have received a lot of recent attention and remain controversial. Investigations have been conducted by the ACCC (Australia), the FCO (Germany), the Norwegian Competition Authority, and the FTC. In the state of Western Australia, concerns about the highly parallel cycle pricing led to price regulation of retail fuel prices there.¹⁹ In the U.S., the FTC first discussed the cycles issue in its latest comprehensive report on competition and, citing recent economic research, has adopted a wait and watch approach.²⁰

As a general matter, retailers subject to the competitively driven cycles still absorb a difficult to avoid litigation risk. The parallel price increases along the cycle have drawn widespread criticism, and were a central theme in the Australian price fixing cases discussed above. Low and sustained pricing in the troughs, on the other hand, played an important role in a recent predatory pricing allegation in the Midwest, as discussed in the predation discussion later.

3. Rockets and Feathers Pricing

Another form of parallel pricing that has received attention is the well-documented "Rockets and Feathers" phenomenon. "Rockets and Feathers" is so named because retail prices tend to go up like "rockets" after a cost increase and fall like "feathers" after a decrease. The pattern differs from Edgeworth

¹⁶ Noel, Michael D. (2007). "Edgeworth Price Cycles: Evidence from the Toronto Retail Gasoline Market", *Journal of Industrial Economics*, 55:1, pp. 69-92.

¹⁷ Noel, Michael D. (2002). "Edgeworth Price Cycles in Retail Gasoline Markets", MIT Dissertation; Zimmerman, P.R., Yun, J.M., and Taylor, C.T. (2011). FTC Working Paper 303.

¹⁸ Noel, Michael D. (2012). "Edgeworth Price Cycles and Intertemporal Price Discrimination", *Energy Economics*, 34(4), pp. 942-954.

¹⁹ The program known as FuelWatch commenced in 2001. In 2007, a move to extend the regulation nationwide failed. Other countries, including Canada and Austria, have either implemented or considered implementing similar regulation.

²⁰ Federal Trade Commission. "Gasoline Price Changes and the Petroleum Industry: An Update", September 2011, available at <http://www.ftc.gov/os/2011/09/110901gasolinepricereport.pdf>, accessed March 9, 2013.

Price Cycles in that Rockets and Feathers type price changes are triggered by cost changes, whereas prices along Edgeworth Price Cycles rise and fall largely independent of cost changes.

The pattern is widespread in the U.S., with wholesale cost increases passed through to retail prices in 1-3 weeks, and decreases in 3-6 weeks. In cities with Edgeworth Price Cycles, the corresponding figures are five and nine *days* respectively.²¹ Economists have looked for the pattern on other parts of the vertical supply chain, with mixed results.

It has been suggested the pattern reflects tacit or even explicit collusion among retailers, resulting in higher profits and consumer harm. If such collusion were stopped, as the popular argument goes, retail gasoline prices should fall as fast as they rise and gasoline prices should be lower overall.

However, economic research shows there is little reason to suspect “Rockets and Feathers” is collusive or even harmful. The pattern is consistent with unilateral pricing decisions based on consumers’ search behavior. In short, consumers search more intensively for the best deals when gasoline prices are rising than when they are falling.²² Competitive firms must adapt to this and, as a result, margins are razor thin when prices are rising and only when prices are falling do retailers make a thin profit.

Supporters of the consumer harm theory almost universally make the same problematic assumptions about the Rockets and Feathers but-for world. First, they assume that price increases and decreases should be symmetric with competition, in spite of the fact there is no inherent connection between “more symmetric” and “more competitive”. The asymmetry in prices reflects asymmetry in consumers’ shopping behavior, and competitive firms must adapt to that to survive. Second, supporters assume that, with true competition, prices should fall just as fast as they rise. But zero or negative margins when prices rise cannot be combined with zero and negative margins when prices fall and still leave a necessary profit. Average margins across both periods of rising and falling prices are the relevant measure, and there is no convincing evidence that average margins on the whole are higher due to Rockets and Feathers patterns.

The FTC discussed the issue in its 2011 report and continues to watch. The risk of litigation based solely on “Rockets and Feathers” is likely low, but could arise as a plus factor in conjunction with another matter.

²¹ Noel, Michael D., and Lewis, Matthew S. (2011). “The Speed of Gasoline Price Response in Markets with and without Edgeworth Cycles”, *Review of Economics and Statistics* 93(2), pp. 672-682.

²² Lewis, M.S., and Marvel, H.P. (2011). “When do Consumers Search? ”, *Journal of Industrial Economics* 59(3), pp. 457-483.

B. So-Called “Price Gouging”

Another source of litigation risk comes from the practice of “excessive pricing”, also known as “exploitative pricing”, or often in case of gasoline, “price gouging”. Excessive pricing is pricing by a firm to levels that are deemed to be unfairly high, generally by a subjective standard, and typically during a declared emergency or following a natural disaster.

There is no federal statute prohibiting excessive pricing in the U.S. or in most other countries. High pricing by a monopolist or oligopolist is considered a normal use of market power and not an abuse of it. A notable exception is the European Union where the Treaty on the Functioning of the European Union (TFEU) Article 102 prohibits “imposing unfair purchase or selling prices or other unfair trading conditions”.

Absent a federal statute, a majority of states have implemented excessive pricing laws instead. Some apply only to necessity goods and a few single out fuel wholesaling and retailing in particular. Some municipalities have also passed local ordinances.

Excessive pricing is often called “price gouging” when it involves fuel selling, though the practice is not as disreputable as the name suggests. Many economists call for the abolishment of these laws altogether. “Price gouging” is nothing more than firms adhering to basic supply and demand economics.²³

When there is a significant supply shortage, as occurs surrounding natural disasters, demand outstrips supply, and market forces work to drive prices up to a new, higher, level where demand equals supply again. Consumers are unlikely to be happy with it, but it *is* the efficient, market clearing price.

When firms are required by law to set a price below the new market clearing level, supply is insufficient and supplies necessarily run dry. This is what “Price Gouging” laws do. They cause shortages, create long lines at the pump, result in stations running out of fuel prematurely, and lead to an inefficient rationing of a scarce supply at a critical time.

Hoarding behavior on the part of anxious people further exacerbates these shortages. There is no incentive for consumers at the front of the line to limit their purchases to just what they minimally need (even if there is a quota in place). As a result, they overbuy and keep a bit some extra, “just in case”. More people at the back of the line go without, and the supply problem gets even worse than it was. Scarce

²³ Price gouging is distinct from misleading business practices or contract breaches. Examples of the latter include posting one price but charging another (e.g. after a long wait in line) or renegotiating prices already agreed upon.

supply is being taken *out* of the market exactly when it is needed the most, because prices cannot reflect the higher value of the product.²⁴

These effects were all observed in advance of Hurricane Sandy. Gas lines stretched for miles, consumers waited for hours at stations in New York and New Jersey, and many stations ran out of fuel.²⁵ Fuel was unavailable at any price to many.

Excessive pricing laws further impede market recovery after a disaster. By preventing prices from rising, such laws limit profits, and reduce the incentive for outside firms and individuals to divert supplies into the affected area.

A canonical example of the recovery problem is that of a Kentucky man who transported a truckload of generators to Mississippi following Hurricane Katrina and sold them for twice their purchase price.²⁶ Though buyers were more than willing to pay, the price he charged was deemed “excessive” by authorities and he was arrested. The generators confiscated. The immediate effect of the “price gouging” law was to cut off this source of supply, deter others from doing the same, and keep people in the dark. While we all wish there were enough good Samaritans to truck in thousands and thousands of generators at no personal gain, the fact is there isn’t. Allowing prices to rise and suppliers to profit brings in supplies faster and in larger quantities than good Samaritans can do alone.

Those who can afford the expensive generators can get them right away while those who cannot will simply wait as they otherwise would have. This may sound “unfair” but note two important things. First, those who cannot afford them will not have to wait as long because those who can are now getting out of line. And secondly, as supplies rush in absent fear of arrest, competition takes hold, the price of generators falls (toward marginal cost) and they become more affordable to more people (and iteratively make lines even shorter for the rest). Meanwhile, all the good Samaritans can continue to bring in as many generators as they can at no personal gain no different than they were before.

²⁴ Rationing or purchase quotas have been used to try to limit hoarding, but it is necessarily inefficient as it is impossible to ration across people according to the value they place on each unit. Such rationing usually assigns a maximum amount per purchase, and does not account for the needs of each purchaser, the amount already in one’s gas tank, whether the purchaser has already purchased the quota amount somewhere else, etc.

²⁵ See <http://money.cnn.com/2012/11/09/news/economy/sandy-price-gouging/index.html>, accessed March 9, 2013.

²⁶ See, for example, <http://abcnews.go.com/2020/Stossel/story?id=1954352&page=1>, accessed March 9, 2013. The man, John Shepperson, was jailed four days.

In summary, natural disasters create a supply problem, not a price problem. Stopping prices from responding to supply makes the supply problem worse. Fixing the supply problem makes the price problem simply go away.

Putting aside the arguments for and against such laws, there are practical litigation risks from Price Gouging laws in the downstream fuel industry. One of the difficult aspects of the laws in many states is that they are vaguely written, creating uncertainty in interpretation and enforcement. The definition of “excessive” varies from state to state and may use terms such as “unfair”, “unreasonable”, “unjustified”, “unconscionable”, or the like. Some states give guidance—specifying a maximum price increase (e.g. 0% or 10%)—while others give no guidance at all. In the latter case, enforcement is especially uncertain and risk is difficult to manage without being overly conservative and pricing *excessively* low.

A significant *ex post* litigation risk results from the difficulty of measuring costs and margins accurately in a declared emergency environment where wholesale and thus retail prices can fluctuate wildly. Generally, price increases are allowed under price gouging laws if justified by a similar cost increase. However, in emergencies, wholesale gasoline prices can change by the hour and exactly how costs are measured (FIFO/LIFO accounting, replacement value methods, etc.) make a great difference in what prices are allowable from one hour to the next under the law. Expert opinions on the appropriate measure of costs vary and since the battle of the experts only takes place after the fact, decisions that retailers make in a panicky situation in a matter of a few hours can have lasting legal implications.

Both New Jersey and New York have excessive pricing laws, and their respective governors were vocal in their warnings about prosecuting violators in advance of Hurricane Sandy. In New Jersey, the law requires margins rise by no more than 10% from pre-disaster levels. In New York, they cannot be “unconscionably excessive”, determined by some subjective *ex post* standard.

Following Sandy, New Jersey investigated over two thousand complaints, 83% relating to gasoline prices, and filed at least twenty-four lawsuits.²⁷ One in five gasoline retailers were subpoenaed. New York investigated at least thirteen gasoline stations and investigations continue.²⁸

“Price Gouging” has received attention at the federal level from Congress and the FTC. In 2005, Congress directed the FTC to investigate the extent of “price gouging” in gasoline retailing following Hurricane

²⁷ *CNN.com*, supra note 19.

²⁸ See <http://articles.latimes.com/2012/nov/18/nation/la-na-nn-sandy-price-gouging-new-york-20121117>, accessed March 9, 2013.

Katrina.²⁹ Congress defined “price gouging” as a retailer earning a higher margin in September 2005 than in August 2005 before the hurricane. This is an almost senseless definition—margins change daily even absent an emergency. The FTC considered a set of twenty-four retailers also targeted by state authorities and found that, according to Congress’ definition, six of these retailers had “price gouged”. The FTC further noted that in every case but one, price increases were consistent with basic supply and demand conditions.

In spite of the economics, there have been several attempts in Congress to pass a national price gouging law. It has been estimated that had such a law been in effect during Hurricanes Katrina and Rita, the economic loss due to the law would have been almost two billion dollars.³⁰ Higher prices are simply replaced with longer lines, the influx of new supply into the affected area is slowed, and the crisis prolonged. The vaguer the statute, the stiffer the fines, the greater the political gain to being tough on “gougers”, the greater is the litigation risk. If sufficiently harsh, it is conceivable that some local stations would elect not to sell at all, at any price.

C. Predatory Pricing and Sales Below Cost

Another significant litigation risk arises from predatory pricing claims. Under federal law, predatory pricing is a Section 2 offense under the Sherman Act and has also been challenged under the Robinson-Patman Act. Most claims come under state level versions of predatory pricing laws known as Sales-Below-Cost laws. About half the states have some version of it, some specific to downstream fuel sales.

There are two important differences between federal and state versions. First, some states do not require pricing below cost, but rather below some minimum margin. Second, and importantly, many states do not explicitly require plaintiffs to show an injury to *competition*. They may only require plaintiffs to show injury to a competitor, or take sales-below-cost as *prima facie* evidence of injury to competition. In other words, there is typically no state requirement to show that the predation strategy is likely to result in long term recoupment of the predator’s short run profit losses. Hence the most difficult—and important—hurdle under federal law is either presumed away or relaxed in many states.

²⁹ FTC. “Investigation of Gasoline Price Manipulation and Post-Katrina Gasoline Price Increases”, available at <http://www.ftc.gov/reports/060518PublicGasolinePricesInvestigationReportFinal.pdf>

³⁰ Montgomery, W.D., R.A. Baron & M.K. Weisskopf (2007). “Potential Effects of Proposed Price Gouging Legislation on the Cost and Severity of Gasoline Supply Interruptions”, *Journal of Competition Law and Economics* 3(3), pp. 357-397.

1. Predatory Pricing at the Federal Level

Litigation from predatory pricing at the federal level, under a Section 2 or Robinson-Patman claim, remains an ongoing risk, for firms in all states and especially in states without a Sales-Below-Cost law.

Recently, gasoline retailer QuikTrip was accused of predatory pricing in the St. Louis retail gasoline market.³¹ The case, *Association of Independent Gas Station Owners v. QuikTrip Corporation*, was brought under federal law in addition to Missouri state law.

The Association of Independent Gas Station Owners (AIGO) claimed that retailer QuikTrip was engaging in predatory practices in the St. Louis retail gasoline market to price below cost and eliminate other retailers from the market. St. Louis is one of many cities in the United States that experience deep price cuts as part of the aforementioned Edgeworth Price Cycles. The plaintiffs argued that competing retailers were forced to lower their prices and some were driven from business as a result.

The economic issues in the case to date have gone unaddressed. The case was dismissed on the grounds that AIGO, an industry association, lacked individual or representational standing as needed under *Hunt v. Washington*.³² A second suit was dismissed on technical grounds and a third attempt, under different named plaintiffs, is ongoing.³³

Under the predatory pricing argument, a predator with deep pockets sets prices below its own costs and suffers losses in the short run.³⁴ It squeezes competitors' margins until they eventually exit the marketplace and the predator then recoups its losses with monopoly or near monopoly profits in the long run. The argument necessarily assumes that some new barriers to entry have been erected, a strong assumption, so that competitors cannot re-enter and compete away the ill-gotten profits. The anti-competitive nature of predatory pricing is based on the fact that a predator acts against its own short run interest to secure a monopoly in the long run.

It is worth noting that predatory pricing receives more legal attention than economic attention. Most economists doubt the existence of a profitable predatory pricing strategy at all (except possibly in the rarest of situations) and there have been no convincingly documented cases of successful predation to

³¹ *Association of Independent Gas Station Owners v. QuikTrip Corporation*, U.S. District Court, Eastern District of Missouri, Eastern Division (2012).

³² *Hunt v. Washington Apple Advertising Comm'n*, 432 U.S. 333 (1977).

³³ This was not the first time QuikTrip has been accused of predatory behavior, as discussed below.

³⁴ The theory was popularized in McGee, J. "Predatory Price Cutting: The Standard Oil (N.J.) Case", *Journal of Law and Economics* 1: pp. 137-169.

date. It is more likely that legitimate competition is mistaken for the alleged predatory behavior. Critics point out that predatory pricing suits are generally brought by firms seeking legal protection from legitimate competition.³⁵

Accordingly, the Supreme Court has set a high standard of proof for predation claims. In *Matsushita*, the Supreme Court noted “predatory pricing schemes are rarely tried, and even more rarely successful” and “mistaken inferences in cases like this one are especially costly, because they chill the very conduct the antitrust laws are designed to protect.”³⁶ In *Brooke Group v. Brown & Williamson Tobacco Corp.*, it reiterated “the costs of an erroneous finding of liability are high”.³⁷

In *Brooke Group.*, the Supreme Court established a new two prong test for predatory pricing under Section 2. The first is whether the prices set by the predator are below some measure of its costs. The second prong is to establish that predation is likely to eliminate competition and keep it out long enough to recover its lost short term profits.³⁸

The second prong is necessary because there is a real risk of false positives with respect to the first. As discussed, costs and corresponding margins can be difficult to estimate with accuracy and competitive pricing can easily be mistaken as predatory. The more competitive a market and the closer prices are to costs, the greater the potential for error. Arguably, costs in gasoline retailing are more transparent than most other industries, but margins are often thinner. The Supreme Court did not define a standard for how to measure costs and economic experts can differ on the precise measure. However, most economists agree that a measure of incremental or marginal costs, rather than accounting measures, is appropriate for this purpose.³⁹ Further, even if costs are known, prices are often economically legitimately below one’s own cost for promotional reasons, as loss leaders, or for other reasons that do not cause competitive harm, even though it hurts competitors.

The second prong is necessarily difficult to show. The arguments typically presented that a predator could realistically recover its losses in the long run tend to be speculative. There should be evidence that other

³⁵ DiLorenzo, T. “The Myth of Predatory Pricing”, CATO Policy Analysis Paper 169, 1992.

³⁶ *Matsushita Electrical Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986), hereafter *Matsushita*, at 589 and 594.

³⁷ *Brooke Group v. Brown & Williamson Tobacco Corp.*, 113 S. Ct. 2578, 2579 (1993), hereafter *Brooke Group*, at 226.

³⁸ See Joskow, P. & A. Klevorick, A. “A Framework for Analyzing Predatory Pricing”, *Yale Law Journal* 89: 213, 1979.

³⁹ The Areeda & Turner test using average (accounting) variable cost as the measure was met with substantial opposition from economists. Philip Areeda and Donald F. Turner, *Predatory Pricing and related Practices Under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697 (1975).

equally efficient and innovative firms cannot re-enter the industry as easily as they exited it and that the predator can reap high profits without new entry competing it away. If this is not expected to occur, there is no expected damage to competition. Even if true predation were attempted, as long as it not realistically successful in the long run, consumers win and there is no competitive harm.

2. Sales Below Cost

About half of all states have a state version of predatory pricing law known as a Sales-Below-Cost law. They prohibit firms from selling a product below cost or below some specified minimum margin, and some are specific to downstream fuel sales. In practice, if not always in original intention, these laws tend to be protectionary in nature and harmful to competition.

Unlike matters of predatory pricing brought under Section 2, the burden of proof for showing competitive harm under state laws is weaker, and insufficient as a matter of economics. State statutes vary widely, but typically there is no meaningful requirement of proof of harm to *competition*, in contrast to the federal standard in *Brooke Group*. Some states require only a showing of injury to a *competitor* or instead accept pricing-below-cost as *prima facie* evidence of injury to competition. The Missouri Supreme Court, for example, held that the Missouri Motor Fuel Marketing Act (MFMA) is violated when there is an injury to competition or to competitors.⁴⁰ The Alabama Supreme Court held that under the Alabama Motor Fuels Marketing Act (AMFMA) competitors and competition were one and the same and harm to the former implied harm to the latter.⁴¹ This is wrong as a matter of economics.

Competition and competitors are not the same thing. Competing firms harm each other every day by their very presence as competitors and that is the very point of competition. Firms that are more efficient, lower cost, higher quality, or more innovative increase market share at the expense of weaker competitors, and weaker competitors can expected to fail over time. This is the kind of pro-competitive, consumer-centric behavior that should be promoted, not prevented.

Many economists have long called for the repeal of these laws, and the FTC has recommended on multiple occasions that states either abolish Sales-Below-Cost laws or resist passing new ones. The bulk of economic research shows that Sales-Below-Cost laws do not lead to lower prices.⁴² Several laws have been repealed, including Kentucky and Georgia, and portions repealed in other states. In Wisconsin, the Unfair

⁴⁰ *Nixon v. QuikTrip Corp.*, 133 S.W.3d 33, 37-40 (Mo. 2004).

⁴¹ *McGuire Oil Co. v. Mapco, Inc.*, 612 So.2d 417 (1992).

⁴² See FTC Bureau of Competition, 2002, Comment on Senate bill no. 458, "Below-cost sales of motor fuels."

Sales Act of 1939, which required gasoline retailers to set a minimum markup of 6% over actual costs or 9.18% over average terminal price, whichever was greater, was struck down in 2009 by a lower court, only to be reinstated by the Seventh Circuit a year later.⁴³

The practical consequence of these laws is that firms in affected states must strike a difficult balance between being competitive and accepting the greater litigation risk that comes from being too competitive. A myriad of different legal definitions and legal interpretations, and a grey area of yet unaddressed issues in different states, increases the risk. A recent case illustrates.

In *Nixon v. QuikTrip Corp.*, the Missouri Supreme Court overturned a lower court verdict against QuikTrip, ruling that the state did not show an injury to its competitors. However, in interpreting the law and reaching its decision, the Court's adopted definition of competitive harm did not make economic sense. In spite of the fact revenues are symmetrically equal to quantity times price, the Court treated plaintiff's lost revenues from a loss in quantity differently from plaintiff's lost revenues from a matching reduction in its own price. They stated that to base liability on the first would be in effect to "create a state-enforced cartel of motor fuel sellers" (which is generally true). But they stated that the liability based on the latter would be appropriate to protect competitors against "unfair diversions of trade" in the spirit of the Act. In other words, if this were truly a predator (a strong assumption absent any long run analysis), and the predator gained market share at the expense of the prey, it would not be a problem in and of itself unless the prey felt it needed to respond (or would reasonably have responded) by lowering its own price, and subsequently losing money. The distinction lacks economic basis. Prices and market shares both impact profits, so to a true predator, reductions in both are equal means to that end. Further, as a matter of microeconomics, changes in prices and market shares by one firm naturally induce changes in prices and market shares of others, as each chooses the price that, conditional on everything else, maximizes its own profit. Prices and market shares are thus economically interconnected, so isolating them from one another in any definition of harm is not meaningful.

Ultimately, the Court found that while QuikTrip priced below cost on occasion, there was no competitive harm and that competitors had not exited and were not in jeopardy of exiting. Economically speaking, again, whether competition is harmed cannot be answered with an exclusive analysis of competitor harm. Whether the number of competitors is likely to decrease or not is not sufficient. Even if competitors were

⁴³ *Flying J., Inc. v. Van Hollen*, 597 F.Supp.2d 848 (E.D. Wis. 2009); *Flying J, Inc. v. Hollen*, 621 F.3d 658 (7th Cir. 2010).

harm and even if some exited, competition would still only be harmed by below cost pricing if the alleged predator is likely to successfully keep competitors out while at the same time charging supra-competitive prices (for the same quality product) and earning supra-competitive profits in the long run. This issue is rarely addressed.

Another litigation risk is borne out of the fact that most Below-Cost-Sales laws were designed with single-product industries in mind. They tend to give little guidance on how to handle issues unique to multi-product industries such as the modern retail fuel industry. Over the past few decades, the retail fuel selling industry has undergone significant structural change, from mainly small mom and pop stations focused on gasoline to now large multi-product businesses that can include convenience stores, supermarkets, department stores, restaurants, coffee shops, and numerous other facilities combined into a one-stop shopping format.⁴⁴ Fuel sales have increasingly become only a part of the overall offering, and can be used as a loss leader to help drive traffic into associated businesses. Stations with associated convenience stores now account for over 80% of the gasoline sold in the United States, and hypermarkets have especially successful in recent years.

In addition to the usual difficulty in measuring costs accurately in Sales-Below-Cost cases, there is now a question of how to allocate costs across multiple products, and what “basket” is relevant for analysis. Sales-Below-Cost laws often give little guidance on how to do this, or simply ignore the necessity. Two matters outside fuel markets and involving Wal-Mart illustrate.

First, in a well publicized case, a lower court found Wal-Mart in violation of the Arkansas Unfair Trade Practices Act when it priced below cost on certain individual items, even though margins were positive across larger baskets of goods.⁴⁵ The decision was then overturned in a split 4-3 decision by the Arkansas Supreme Court, but the focus on the Court was on whether Wal-Mart had the intent to injure. They gave little guidance on how price cost margins should be calculated in the case of bundled sales. The dissenting judges, however, stated that the statute did not permit an analysis of bundling in calculating price cost margin.

⁴⁴ Integrated oil companies have largely sold off their retail arms to retail specialists that can take advantage of economies of scope in food and merchandise retailing. The benefits to consumers, in terms of convenience and economies of scale, are significant.

⁴⁵ *Wal-Mart Stores, Inc. v. American Drugs, Inc., et al.*, 1995. Plaintiff James Hendrickson testified “I want them to raise their prices. . . . I cannot compete with Wal-Mart”, p. 1634.

Second, uncertainty over the relevant basket of goods and cost calculations under Sales-Below-Cost laws reportedly led Wal-Mart to increase the price of certain prescription drugs in eight states that have these laws. The concern would be if the drugs in question, on its very popular \$4 generic drug list, could potentially be considered below cost on an individual basis, even if the greater basket of pharmaceuticals, or products in general, that Wal-mart sells is not. The price of the \$4 drugs was thus increased to \$9 for these states, to the detriment of consumers, but avoiding the increased litigation risk from the same laws that were designed to protect those same consumers.⁴⁶

A few state legislatures have attempted to provide some guidance on the relevant basket. For example, in California, bill AB 2258 was proposed to amend the California Unlawful Practices Act to require that, in predation cases involving gasoline, price-cost margins be calculated on transaction amounts including gasoline and non-gasoline purchases, rather than on individual gasoline transactions alone. It did not pass. In Colorado, Section 113 of the Unfair Practices Act does require that price-cost margins are calculated on the whole transaction amounts, rather than just on gasoline or any one good. Ambiguity remains however on how to choose relevant “transactions”.

One fundamental problem of the design of these laws as it applies to fuel sales lies in outdated notions of market definition. Fuel retailing is no longer a market unto itself, but is increasingly just one product in a set of many products sold in a one-stop-shopping environment. Whereas we have historically thought of gasoline stations as a market with potentially ancillary businesses attached, increasingly the gasoline station is the ancillary business attached to something else. Gasoline can act as a loss leader to drive traffic into those higher margin businesses. It is pro-competitive in general, even when small standalone retailers are harmed and exit.

Pro-competitive examples of below-cost pricing outside fuel sales are abound. Newspaper publishers routinely sell newspapers below marginal cost, and network television stations broadcast programming for free, because doing so brings in more-than-compensatory revenues from advertisers. Cell phones are routinely sold below cost or given away in exchange for two-year service contracts. Fitness clubs or phone companies offer “first month free” or similar promotions. Termite inspections are offered free in hopes there will be termites. And in the same way low gasoline prices helps sell cigarettes, hot dogs, and

⁴⁶ See, for example, “Side Effects at the Pharmacy”, New York Times, available at http://www.nytimes.com/2006/11/30/business/30pharmacy.html?_r=2&ref=health&oref=slogin& , accessed February 9, 2014.

groceries. Competitors with an inferior and less varied offering may be hurt, but this is not a competition *problem*.

D. Bundled Discounts

Another controversial and related topic is with the use of bundled discounts. This has become a hot issue in fuel retailing, where their use has become increasingly common. The most common form in downstream fuel sales is a discount on gasoline purchases for a minimum amount of in-store purchases. Less common is a discount on in-store purchases for a minimum amount of gasoline purchase.⁴⁷ Discounts can also be applied to car washes and other services, or reserved for members of a wholesale club (in essence bundling gasoline and membership together), or for other reasons.

In some cases, a single firm will operate both the fuel operation and the ancillary businesses itself, and offer the bundled discount. In other cases, fuel sellers enter into multi-seller agreements with separate supermarkets, department stores, or other businesses, to offer bundled discounts on cross-marketed products.

Bundled discounts throughout the economy are ubiquitous—two for one deals, a free fountain soda drink with the purchase of an entree, punch cards counting sandwiches purchased, and so on. From an economics point of view, the vast majority of bundled discounts are not of competitive concern.

Legally, bundled discounts are challenged at the federal level typically under Section 2 of the Sherman Act. Cases have been relatively few, and the federal courts have yet to give clear and consistent guidance on handling of these cases. In the highly criticized decision *LePage's v. 3M Co.*, the Third Circuit focused on the harm done to a *competitor* in determining a violation.⁴⁸ It upheld the lower court ruling that 3M had violated Section 2 by offering discounts for minimum purchases of its unbranded tape and Scotch branded tape, and in so doing harmed LePage's sales of unbranded tape.⁴⁹

⁴⁷ Many supermarkets in the U.S. offer such programs, including Albertsons, BI-LO, Harris Teeter, Jewel-Osco, Kroger, Roundy's, Safeway, Shaw's, Stop & Shop, and Winn-Dixie. These are also known as shopper docket schemes in some countries.

⁴⁸ *LePage's Inc v. 3M Co.* 324 F.3d 141 (3rd Cir. 2003), hereafter "*LePage's*".

⁴⁹ For a list of critical reviews, see Burchfield, B.R. (2009). "An Emerging Consensus on Bundled Discounts under Section 2 of the Sherman Act?", *Antitrust Bulletin* 54:2.

In the wake of *LePage*, other proposals for handling bundled discounts return the focus to competition instead of competitors. One proposal is to treat the bundle as a product, calculate its cost, and apply a standard predatory pricing test a la *Brooke Group* to the bundle.

In 2007, the Antitrust Modernization Commission suggested a modified predatory test. It begins by applying all discounts in the bundle to the most “competitive” good and asking if this good is sold below cost—the so-called “discount attribution” test. If not, the act should be *per se* legal. The second prong asks whether the losses on the competitive product are recoverable, as in a predation case. But there is also a third prong—whether competition is harmed as a result.⁵⁰ The latter is important because the first two no longer guarantee anti-competitiveness, as pricing below cost can be a rational short run strategy even for a monopolist where competitors were never an issue.

In *Cascade Health Solutions v. PeaceHealth*, the Ninth Circuit embraced the discount attribution test, but not the remaining prongs of the modified predation test, in overturning the lower court decision.⁵¹ (The district court had followed *LePage’s* and not considered a price-cost test.) As noted above, however, even if the “competitive” good is sold below cost, with *or even without* discounts applied, it need not necessarily harm competition and the later prongs of the test remain important.

In Section 2 cases, one of the products involved is often a near-monopoly product and there is concern the firm is attempting to leverage one monopoly into another. This is not typically the case where the bundles involve gasoline and food. In fuel retailing where market shares tend to be low, the potential for monopolization is less of a concern and the potential for a false positive is the greater concern.

At the state level, bundled discounts are generally challenged under Sales-Below-Cost laws. As discussed above, Sales-Below-Cost laws generally have no meaningful requirement of proof of harm to competition. Harm to competition is generally inferred by the presence below cost pricing and harm to competitors, contrary to economic thought. Similar litigation risks arising from the same ambiguities and application of the law continue to apply. Several cases help illuminate some of the problems involved.

In *Parish Oil Co. v. Dillon Companies*, Dillon operated gasoline stations in Colorado under the City Market name and engaged in a grocery discount program with City Market grocery stores.⁵² When consumers purchased a minimum amount of groceries (usually twenty-five to fifty dollars) using their loyalty card,

⁵⁰ Antitrust Modernization Commission (2007). “Report and Recommendations.”

⁵¹ *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883 (9th Cir. 2008), hereafter “*Cascade*”.

⁵² *Parish Oil Co. v. Dillon Companies*, 523 F.3d 1244 (10th Cir. 2008), hereafter “*Parish*”.

they received discounts of four to twenty cents off each gallon of gasoline. They received three cents off with a card and no grocery purchase. With the discount, City Market's margins on gasoline alone were negative over the course of the promotion, and the district court ruled in favor of the plaintiffs. The Tenth Circuit overturned the decision on the basis that the margin calculations were not the correct one. Section 113 of the Colorado Unfair Practices Act requires that, when products are bundled together, profit margins be calculated on the entire bundle and not on gasoline alone, and City Market's profits on the gasoline-grocery bundles sold were on net positive. Calculating price-cost margins on the bundle is similar to the first prong of the predatory pricing test of *Brooke Group* alone.

In *Star Fuel Markets LLC v. Sam's East Inc.*, defendant Sam's Club operated three stations in Oklahoma at its warehouse store locations, and offered a five cent per gallon discount for Sam's Club members.⁵³ With the discount, plaintiffs argued Sam's Club sold gasoline below the minimum required six percent markup. The district court evaluated gasoline as part of a bundle that included both gasoline and club membership, but ruled that even under a generous allocation of membership fees to gasoline purchases, prices were below minimum levels. It ruled Sam's Club was using gasoline as a loss leader, and while otherwise sensible as a business strategy, was still illegal under the Oklahoma Unfair Sales Act. It issued an injunction and the Tenth Circuit affirmed.

Similarly, in *Home Oil Company v. Sam's East*, an injunction was placed against Sam's Club for its membership discount practices under the Alabama Motor Fuel Marketing Act (AMFMA).⁵⁴ The district court ruled that the AMFMA's combined-sale statute did not apply to memberships. From an economics point of view, both of these Sam's decisions are likely to harm consumers in the long run through increased prices.

Bundled discounts involving gasoline are not only controversial in the U.S. but in other countries as well, including Australia. There, two large supermarkets usually discount gasoline four cents a liter for a minimum in-store purchase and as much as forty cents per liter during promotional periods.

Said Colin Long of the Australian Service Station Association, "We think it's an unfair advantage that supermarkets have, because they're getting it back in their other grocery lines in terms of increased grocery prices, and giving it back with the other hand while decimating the independent fuel retailers."⁵⁵

⁵³ *Star Fuel Markets LLC v. Sam's East, Inc.* 362 F.3d 639 (10th Cir. 2004).

⁵⁴ *Home Oil Company v. Sam's East* 199 F.Supp.2d 1236 (2002).

⁵⁵ <http://www.theaustralian.com.au/business/accc-eyes-clamp-on-shopper-docket-petrol-discounts/story-e6frg8zx-1226428580787>

That many independent retailers are hurt by supermarkets' bundling practices is no doubt true, but whether competition is harmed a very different thing.

The Australian debate highlights an important defect in the design and enforcement of Sales-Below-Cost laws in the United States. Gasoline is not a stand-alone product anymore. Firms are increasingly competing on the entire *basket* of products they sell, and consumers make buying choices based on the price and quality of the entire basket. The basket may include groceries, restaurant food, or anything else that appeals to customers and is often sold together with gasoline.

If supermarkets were overcharging on groceries, consumers always have the option of purchasing groceries at a different supermarket without the inflated prices and buying gas elsewhere. By revealed preference, consumers in large numbers prefer purchasing the discounted bundle of food and gasoline together to this other option. If independent retailers do not or cannot offer as wide ranging a selection of products of the same quality at the same price as supermarkets, they will fall behind and may fail. But that is not a competition problem. The face of retailing is changing. Some independent retailers adapt by creating partnerships with other supermarkets to compete on the larger multiproduct market. Others can and should be allowed to fail. The "new" gasoline retailers tend to be increasingly hypermarkets, supermarkets, and large convenience store chains. Absent any realistic risk of monopolization, Sales-Below-Cost laws should not stand in the way of this welfare-enhancing transformation.

The arguments about supermarkets harming small fuel retailers today is no different than arguments dating back to the 1920s and 1930s about supermarkets harming independent butchers, bakers, and produce shops. Supermarkets competing with one another commonly used loss leaders and bundled discounts (e.g. "two for one") that resulted in at least one product being sold below cost. Yet few people today would call for an abolition of supermarkets to make room for a thicket of small specialized food sellers in the name of better competition.

As another hypothetical scenario, imagine a restaurant offered a free fountain drink with the purchase of an entree. This and other "free" offers (free dessert, kids eat free, etc.) are ubiquitous, and few, if any, people would consider the practice anti-competitive. Yet a stand-alone seller of fountain drinks would be harmed by this clear example of below-cost-selling on fountain drinks. It would have standing to file a suit against the restaurant and claim harm to competition under Sales-Below-Cost laws.

Of course, there are few stand-alone fountain drink shops in existence anymore. They were once very popular in the 1910s and 1920s. So why are they gone? It is because, from a consumer perspective, stand-

alone fountain shops could not offer as good a package as restaurants that sell both fountain drinks and food together. The restaurant offered better value to the consumer on the combination of food and drink than she could get by buying a drink from a stand-alone fountain shop and then going to buy food by itself somewhere else. Stand-alone fountain shops that would not adapt to the new market reality failed, while others did adapt and began to offer food as well. In spite of the loss of the stand alone fountain shops of the early last century, it would be difficult to claim that restaurant competition today is weak or that the restaurant business has been monopolized to the detriment of consumers because of “free drink with the purchase of an entree” deals.

Now change the name in the hypothetical from “fountain drinks” to “gasoline” and we are reliving the same argument today.

Provided that the transformation of the retail fuel selling industry does not lead to monopolization, which seems exceptionally unlikely, bundling is not anti-competitive. Rather, Sales-Below-Cost laws that prohibit such bundling have the potential to do more harm than good in most situations. While they purport to protect competition and consumers, the absence of any reasonable proof of harm to competition means they do quite the opposite. They are protectionist laws and should be repealed.

III. CONCLUSION

This article examines litigation risks in downstream petroleum sales resulting from four common pricing patterns and strategies. I discuss the economics underlying these patterns and strategies, laws that apply to them, and how the courts have interpreted these practices under the law.

The first litigation risk arises from parallel pricing, often cited as evidence of collusive behavior. In spite of the scrutiny it attracts, parallel pricing is a common and expected outcome in downstream fuel sales and is perfectly consistent with competitive markets. When in combination with sufficient so-called “plus factors”, however, Section 1 cases can be brought on circumstantial evidence. Two special cases of parallel pricing behavior in downstream petroleum have received particular attention in the economics literature and by competition authorities—Edgeworth Price Cycles and Rockets and Feathers pricing. The literature shows that both are consistent with competition.

The second litigation risk arises from pricing too high during declared emergencies. State-level “excessive pricing” or “Price Gouging” laws prevent firms from raising prices too much during these periods. The prohibition exacerbates shortages and dampens market recovery in general. The practical difficulty in

compliance is two-fold. First, what constitutes “excessive pricing” in the law is often vague *ex ante*. Second, while laws generally allow an increased cost defense, they remain agnostic about exactly how costs should be measured, leading to addition *ex post* risk.

A third litigation risk arises from pricing too low. Few cases are brought under federal antitrust law, where the burden of proof for showing predatory behavior is (appropriately) high. However, state versions of anti-predation laws, known as Sales-Below-Cost laws, set a bar that is inappropriately low. In fact, Sales-Below-Cost laws have no meaningful requirement of proof of harm to competition, and tend to confuse harm to competitors and harm to competition. Practical litigation risks come in various forms. First, firms must strike a difficult balance between being competitive and accepting the greater litigation risk that comes from being too competitive. Second, laws remain agnostic on how to measure costs, how to allocate costs across multi-product firms, and which “basket” of goods is relevant for the price-cost analysis. Moreover, compliance is all the more cumbersome since standards vary widely across states and are sometimes even self-contradictory in equating harm to competitors with harm to consumers.

The fourth litigation risk I discuss arises from the use of bundled discounts. At the federal level, courts are yet to provide consistent guidance on how to handle such matters. Most complaints are instead brought under state Sales-Below-Cost laws, which have a lower bar and are not well suited to handle them. The aforementioned ambiguities in Sales-Below-Cost litigation continue to apply in bundled discount disputes.

Moving forward, economics will continue to play a role in assisting firms, legislators, litigators, and courts to understand the potential ramifications of these patterns and practices. Economists can help establish whether a particular practice, in a particular setting, is likely to be pro- or anti-competitive overall, or help establish consistent standards on how to perform certain calculations or tests. In some cases, economists may simply call for the revision or repeal of a law that lacks economic merit.

The competitive marketplace is a constantly evolving one and new types of practices appear each year. Some laws passed in an older era may not well address such new practices, while other laws may no longer be appropriate to the new marketplace. Combining legal and economic thought is the surest way to continue to guide antitrust law and enforcement in the United States in the best direction for the protection of both consumers and competition overall.

Figure 1. Edgeworth Price Cycles in Indianapolis and St. Louis, March 2012 – March 2013.

