

ECONOMIC ISSUES

ECONOMIC ANALYSIS OF HOTEL RESORT FEES

by

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**Bureau of Economics
Federal Trade Commission
January 2017**

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ACKNOWLEDGEMENTS

I would like to thank James Lacko, Janis Pappalardo, David Schmidt, and Michael Vita for helpful comments on previous drafts of this paper and Jessica Skretch for developing mock-ups of hotel and online travel agent websites for the paper.

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EXECUTIVE SUMMARY

Resort fees are per-room, per-night, mandatory fees charged by some hotels. According to the hotel industry, the purpose of the fees is to provide hotel customers with certain hotel services, such as Internet access, parking, and use of the hotel's health club. However, these services could be provided without charging separately-disclosed resort fees by making them optional to customers for additional fees or, alternatively, bundling them with the room and including the cost of the services in the room rate. By charging a mandatory resort fee, a hotel is bundling the services with the room, but is disclosing the fee for the services separately from the room rate.

Consumers and advocacy groups argue that the fees are misleading because they are not included in the room rate. Hotels defend the fees, claiming that they provide resort services to their guests at discount relative to the cost of purchasing the services individually. Hotels also claim that resort fees allow hotels to reduce the commissions paid to online travel agents.

This paper examines the likely costs and benefits of disclosing resort fees separately from the room rate by reviewing the economics and consumer behavior literatures on drip pricing and partitioned pricing, two pricing practices used by online travel agents and hotels to disclose resort fees to consumers. Partitioned pricing entails dividing the price into multiple components without disclosing the total. Drip pricing is the practice of advertising only part of a product's price upfront and revealing additional charges later as consumers go through the buying process.

This analysis finds that separating mandatory resort fees from posted room rates without first disclosing the total price is likely to harm consumers by increasing the search costs and cognitive costs of finding and choosing hotel accommodations. In this situation, a consumer's choice is either to incur higher total search and cognitive costs or to make an incomplete, less informed decision that may result in a more costly room, or both. The analysis finds that separating resort fees from the room rate without first disclosing the total price is unlikely to result in benefits that offset the likely harm to consumers.

Hotels could eliminate these costs to consumers by including the resort fee in the advertised price. They could still bundle the same resort services with the room and charge the same total price. They could also list the components of the total price separately, as long as the total price is the most prominently disclosed price. Hotels would also have the option, as they do now, of changing to unbundled, optional resort services, which would not be included in the advertised price.

I. Introduction

Resort fees are per-room, per-night, mandatory fees charged by some hotels. According to the hotel industry, the purpose of the fees is to provide hotel customers with certain hotel services, such as Internet access, parking, and use of the hotel's health club. However, these services could be provided without charging separately-disclosed resort fees, by making them optional to customers for additional fees or, alternatively, bundling them with the room and including the cost of the services in the room rate. By charging a mandatory resort fee, a hotel is bundling the services with the room, but is disclosing the fee for the services separately from the room rate.

Resort fees existed as early as 1997.¹ After hotels began charging resort fees, consumers complained that they were surprised by the fees and often did not learn about them until arriving at the hotel.² In November 2012, the FTC warned 22 hotels that resort fees were not adequately disclosed on their hotel reservation websites, and that such practices may violate the law by misrepresenting the price consumers expected to pay for their hotel rooms.³ In response to these warning letters, many hotels modified their resort fee disclosures.

Despite improvements in resort fee disclosures since 2012, complaints about the fees persist. Consumers and advocacy groups, including Travelers' United, argue that not including resort fees in the room rate makes it more difficult for consumers to comparison shop.⁴ There are

¹ See "Properties are banking on resort fees, but do groups really need to pay? Lisa Grimaldi, March 1, 2012, *Meetings and Conventions*. Retrieved November 23, 2016 from <http://www.meetings-conventions.com/News/Features/Resort-Fees/>.

² See "Resort fees catch guests by surprise," *Las Vegas Sun*, May 8, 2010, Liz Benston. Retrieved November 23, 2016 from <http://lasvegassun.com/news/2010/may/08/resort-fees-catch-guests-surprise/>.

³ See <https://www.ftc.gov/news-events/press-releases/2012/11/ftc-warns-hotel-operators-price-quotes-exclude-resort-fees-other>.

⁴ See "TravelersUnited.org Calls on Hotels and Resorts to End Mandatory Fees," June 23, 2015. Retrieved November 23, 2016 from <http://www.nbtworld.com/travelersunited-org-calls-on-hotels-and-resorts-to-end-mandatory-fees/>.

also reports that consumers feel “nickel-and-dimed” from the fees,⁵ and that the fees mislead consumers about how much a hotel room costs.⁶

Moreover, the amount consumers are paying in resort fees is increasing. In 2015, consumers paid resort fees estimated at about \$2 billion, 35 percent higher than the previous year.⁷ Las Vegas hotels that charge resort fees increased resort fees by seven percent in 2015,⁸ and several Las Vegas hotels increased their fees in 2016.⁹ The share of U.S. hotels charging resort fees is seven percent.¹⁰ According to ResortFeeChecker.com, hotels charge resort fees in a number of popular tourist destinations, including Las Vegas, Miami, Orlando, Anaheim, Oahu, and Maui,¹¹ but resort fees are increasingly being charged by hotels in urban areas.¹²

With the separate disclosure of resort fees, searching for hotel accommodations on hotel websites requires more steps than if resort fees were included in the room rate. If resort fees were included in the room rate, consumers could compare rooms at different hotels by simply viewing the room pages at the hotel websites and remembering the prices. With separately-disclosed resort fees, consumers would need to add the room rate to the resort fee and remember the total for each hotel under consideration or keep track of the room rates and resort fees separately for

⁵ See “New year, new complaints about resort fees,” *Travel Weekly*, January 13, 2015, by JoAnna Haugen. Retrieved November 23, 2016 from <http://www.travelweekly.com/North-America-Travel/Insights/New-year-new-complaints-about-resort-fees>.

⁶ See “Hotel Absurd: When Your Resort Fee Costs More Than Your Room,” *Huffington Post*, September 1, 2015, Kevin Richberg. Retrieved November 23, 2016 from http://www.huffingtonpost.com/kevin-richberg/hotel-absurd-what-to-do-w_b_8068212.html.

⁷ See “Hotel travelers gripe as resort fees rise,” *Reuters*, January 12, 2016, Lauren Young. Retrieved November 23, 2016 from <http://www.reuters.com/article/us-travel-hotels-resortfees-idUSKCN0UQ1MX20160112>.

⁸ “Las Vegas Resort Fees 2016 Guide,” *Las Vegas Jaunt*, December 28, 2015. Retrieved November 23, 2016 from <http://www.lasvegasjaunt.com/las-vegas-resort-fees-2016-guide/>.

⁹ “Some Las Vegas hotels have increased their resort fees. Here's what it will cost you now,” *Los Angeles Times*, December 7, 2016, Jay Jones. Retrieved December 28, 2016 from <http://www.latimes.com/travel/deals/la-tr-las-vegas-resort-fees-increase-20161206-story.html>.

¹⁰ See “Hotel travelers gripe as resort fees rise,” *Reuters*, January 12, 2016, Lauren Young. Retrieved November 23, 2016 from <http://www.reuters.com/article/us-travel-hotels-resortfees-idUSKCN0UQ1MX20160112>.

¹¹ See <http://www.resortfeechecker.com/>.

¹² “Beware: That In-Room Coffee Just Might Cost You,” *The New York Times*, by Martha C. White, August 29, 2016. Retrieved November 23, 2016 from http://www.nytimes.com/2016/08/30/business/beware-that-in-room-coffee-just-might-cost-you.html?_r=0.

each hotel. Alternatively, the consumer could click through to the booking page for each hotel to view the total charges for the trip and remember the total. Clicking through to the booking page would increase the amount of time it would take to search each hotel.

Online travel agent (OTA) resort fee disclosures also affect how consumers search for hotel accommodations. The first page consumers see in response to a search query on most OTA websites is the hotel comparison page. The hotel comparison page lists hotel room rates exclusive of the resort fee, and does not even mention whether a hotel charges a resort fee. To learn whether a hotel charges a resort fee and see the amount of the fee, a consumer must click on the listed hotel and go to a hotel-specific page. There, OTAs disclose resort fees separately from the room rate. Therefore, after clicking on a hotel to learn the resort fee, consumers would need to add the room rate to the resort fee and remember the total or keep track of the room rate and resort fee separately to compare them with the prices of other hotels under consideration.

The American Hotel and Lodging Association (AH&LA) counters that resort fees provide hotel guests with services that would cost more if hotels offered them individually.¹³ The AH&LA states that hotels fully disclose the fees, and that it is important to the hotel industry that consumers have all the necessary information before booking a room.¹⁴ The AH&LA claims that resort fees allow hotels to reduce the commissions paid to online travel agents.¹⁵

The purpose of this paper is to evaluate the costs and benefits of disclosing resort fees separately from hotel room rates. The analysis is based on a review of studies of related pricing practices from the economics and consumer behavior literatures. Two pricing practices are

¹³ See “Hotels are not trying to hide anything,” letter to the editor, *Washington Post*, from Katherine Lugar, President and Chief Executive of the AH&LA, July 20, 2015. Retrieved November 23, 2016 from https://www.washingtonpost.com/opinions/hotels-are-not-trying-to-hide-anything/2015/07/20/c225b420-2cc6-11e5-960f-22c4ba982ed4_story.html.

¹⁴ Ibid.

¹⁵ See “Frequently Asked Questions on mandatory resort fees in https://www.ahla.com/sites/default/files/FAQs_Resort_Fees_0.pdf (Retrieved November 23, 2016.)

relevant for the analysis of resort fees: partitioned pricing and drip pricing. Partitioned pricing entails dividing the price into multiple components and not disclosing the total. Drip pricing is the practice of advertising only part of a product's price upfront and revealing additional charges later as consumers go through the buying process.

A hotel's decision to disclose the resort fee separately from the room rate is an example of partitioned pricing. Travel agents, including OTAs and aggregator sites, also use partitioned pricing if they disclose the resort fee separately from the room rate. A hotel or travel agent that advertises only the room rate initially and discloses the resort fee later is using drip pricing.

In general, firms are free to disclose prices as they would like as long as their representations are not deceptive or unfair. This paper does not provide a legal analysis of resort fee disclosures. Rather, it assesses the economic consequences of disclosing resort fees separately from the room rate.

Studies of drip pricing and partitioned pricing suggest that separating mandatory resort fees from posted room rates without first disclosing the total price is likely to harm consumers by increasing the search costs and cognitive costs of finding and choosing hotel accommodations. Forcing consumers to click through additional webpages to see a hotel's resort fee increases the cost of learning the hotel's price. Separating the room rate from the resort fee increases the cognitive costs of calculating and remembering the hotel's price. When it becomes more costly to search and evaluate an additional hotel, a consumer's choice is either to incur higher total search and cognitive costs or to make an incomplete, less informed decision that may result in a more costly room, or both.

Hotels could eliminate these costs to consumers by including the resort fee in the advertised price. They could still bundle the same resort services with the room and charge the

same total price. They could also list the components of the total price separately, as long as the total price is the most prominently disclosed price. Hotels would also have the option, as they do now, of changing to unbundled, optional resort services, which would not be included in the advertised price.

The next section of the paper illustrates some disclosures of resort fees from an OTA website and a hotel website. Section III contains a literature review of drip pricing and partitioned pricing studies that have implications for resort fees. Section IV uses the empirical literature on drip and partitioned pricing to explain how separately-disclosed resort fees can increase consumers' search and cognitive costs of finding a hotel room. Section V considers how resort fees could affect hotel pricing, profitability, and competition. Section VI examines hotel industry arguments in favor of resort fees, and Section VII concludes the paper.

II. Resort Fee Disclosures

Many consumers use hotel and OTA websites to search for hotels. According to a 2014 survey commissioned by Google, 31 percent of leisure travelers begin their search for overnight accommodations through hotel brand websites or apps, and 26 percent begin their search through a search engine, such as an OTA or aggregator.¹⁶ Because so many consumers search on these websites, how resort fees are disclosed online could influence a large percentage of travelers.

Resort fee disclosures vary across OTAs and hotels. To illustrate certain features of resort fee disclosures, I include mock-ups of disclosures from an OTA website (Figure 1) and a hotel

¹⁶ "The 2014 Traveler's Road to Decision," Ipsos MediaCT, commissioned by Google. Retrieved November 23, 2016 from https://storage.googleapis.com/think/docs/2014-travelers-road-to-decision_research_studies.pdf.

website (Figure 2). Figures 1a – c list a series of screenshots from OTA-X.com.¹⁷ Figure 1a shows OTA-X’s default listing of hotels. The rates listed for the various hotels on this page do not include resort fees and this listing makes no disclosures of the fees. If you click on a specific hotel, OTA-X takes you to a webpage with more information about that hotel. Figure 1b shows the first hotel-specific webpage for the Luxe Resort & Casino on OTA-X.com. Below the room rate of \$96 is the disclosure, “Excludes \$29.12 daily resort fee” in a much smaller, paler font. After choosing a room, OTA-X takes you to the booking page for the Luxe Resort & Casino, illustrated in Figure 1c, where there appears a summary of the trip expenses. It first lists the daily room rate and tax, \$96.38 and \$11.57, respectively. Then it lists two numbers: the combined total room charges plus room tax for the entire trip, \$323.85 (labeled “Total due today”), and the total resort fee charges for the entire trip, \$87.36 (labeled “Due at hotel”). If you click on “Due at hotel,” which is a hyperlink, you will see that this charge is for resort fees. At the bottom of the booking page is the “Trip Total” of \$411.21, which includes the total room charges, taxes, and resort fees for the entire trip. This is the only place on the website where the resort fee is added to the room charges.

Figures 2a - b provide screen shots of the room selection page and booking page from the Hotel Y website.¹⁸ Figure 2a shows a webpage that compares several rooms available at Hotel Y. This page lists the room rate for each room in a large dark font. Beneath the room rate is a disclosure in a smaller, paler font that says “Plus \$35.84 daily resort fee (tax incl).” The booking page for a room at Hotel Y is shown in Figure 2b. This page lists a subtotal for the room charges in the top right corner or \$887, labeled “Room Subtotal,” which equals the room rate times the

¹⁷ These screenshots were taken from an actual OTA on March 21, 2016 for a hotel stay the nights of April 29, 2016 – May 1, 2016.

¹⁸ The screenshots were taken on March 21, 2016 from an actual for a hotel stay the nights of April 29, 2016 – May 1, 2016.

number of days. At the bottom of the booking page is a comprehensive list of charges, which begins with the same Room Subtotal that is listed above. Below the room subtotal is a line labeled “Taxes,” which includes the total room taxes for the trip, \$106.44. Below that is a line labeled “Resort Fee & Tax,” which includes the total resort fee charges for the trip and the tax on the resort fee, \$107.52. Below this is the “RESERVATION TOTAL,” which includes the room charges, room tax, resort fee, and resort fee taxes for the entire trip, \$1,100.96.

There are several notable features of the OTA-X.com and the Hotel Y website disclosures. First, OTA-X.com’s hotel comparison page in Figure 1a – the first page that consumers see – lists room rates, but has no resort fee disclosures. This is a significant omission because consumers use this page to comparison shop. Second, the first time the amount of the resort fee is disclosed, it is listed separately from the room rate, as in Figure 1b for OTA-X.com and Figure 2a for Hotel Y. The resort fee disclosures are in a smaller, paler font than the room rate. Third, the booking pages, Figure 1c for OTA-X.com and Figure 2b for Hotel Y, are the first place the consumer sees the resort fees added to the room charges.

Some OTA and hotel websites use resort fee disclosures that are less transparent than those illustrated in Figures 1 and 2. For example, as of June 16, 2016, another OTA website did not provide the amount of the resort fee at the top of the first hotel-specific webpage (analogous to Figure 1b), but simply said “Hotel Fee Not Included” under the room rate. To see the amount of the resort fee, one had to scroll down to the next screen.¹⁹ Similarly, not all hotel websites list the amount of the resort fee with their room listings. For example, one hotel website did not include the amount of the resort fee next to the room rate in its initial room listing. Instead, the room listing included the following disclosure in a small font under the room rate: “Excluding

¹⁹ Viewed on June 16, 2016.

Taxes & Fees.” After clicking on a particular room, a hyperlink appeared labeled “View Price Breakdown.” This hyperlink provided the total amount of the resort fees for the entire stay at the bottom of the price breakdown after a day-by-day itemization of room charges and the disclosure of taxes.²⁰

Although the disclosures in Figures 1 and 2 are likely to be more effective at informing consumers about resort fees than the disclosures on these other websites, studies of drip pricing and partitioned price suggest that even the disclosures in Figures 1 and 2 are likely to result in harm to consumers who are searching for accommodations. The next section reviews several studies in the drip pricing and partitioned pricing literature that are relevant for assessing the likely impact on consumers of resort fee disclosures.

III. Literature Review

Resort fees embody two different pricing techniques: drip pricing and partitioned pricing. With drip pricing, firms advertise only part of a product’s price upfront and reveal additional charges later as the consumer goes through the buying process. With partitioned pricing, the price is partitioned into components. The components may be displayed together or separately, but the total price is not provided. The comparison-listing page shown in Figure 1a employs drip pricing, while the disclosures in Figure 1b and 2a employ partitioned pricing.

While drip pricing and partitioned pricing are similar, the literatures on the two practices evolved separately. Drip pricing has been analyzed by economists, while most partitioned pricing studies have been conducted by researchers in marketing and consumer behavior. Both literatures are concerned with the effect of their specific pricing practices on consumers, but the

²⁰ Viewed on June 16, 2016.

drip-pricing literature includes theoretical studies that examine how drip pricing can be an equilibrium strategy, given competition, consumer expectations, and consumer preferences.²¹

This section begins with a review of theoretical studies of drip pricing and related practices, continues with a review of empirical studies of drip pricing, and then discusses several partitioned pricing studies.

A. Theories of Drip Pricing

This subsection reviews several theoretical models that evaluate both a firm's ability to profit by initially withholding part of the price from consumers and how disclosing the price in this manner affects consumers. Not all of the studies reviewed here explicitly model drip pricing, and some of the dedicated drip-pricing models examine optional add-on fees rather than mandatory fees. Nonetheless, each model introduces an element that is important in assessing the outcomes for hotels and consumers when drip pricing is used to disclose resort fees. Milgrom (1981) and Grossman (1982) consider whether sellers can withhold information from consumers with rational expectations. In the context of drip pricing and related models, consumers with rational expectations understand the motives of sellers and utilize all existing information to form accurate expectations of unadvertised prices. Lal and Matutes (1994) contribute to the literature on hidden fees by examining whether sellers can profit from loss leader pricing when consumers with rational expectations have to incur search costs to learn the price of a firm's unadvertised product. Aftermarket monopoly models consider whether consumers with rational expectations could be harmed if a firm is the sole supplier of aftermarket products that are used with its base product when the market for the base product is competitive. Ellison (2005)

²¹ A strategy is an option chosen by a firm for which the outcome depends on consumer preferences and expectations and the choices of competing firms. A strategy is an equilibrium strategy if none of the competing firms has the incentive to change its strategy after considering the choices of the other firms.

contributes to this literature by evaluating whether firms could profit from initially undisclosed add-on pricing if consumers have rational expectations but differ in their preferences for the add-on. Gabaix and Laibson (2006), Farrell (2012), and Chetty et al. (2007) consider, in different ways, how consumers who do not have rational expectations would behave if firms fail to clearly disclose additional fees and sales tax.

One conclusion from the economics literature on disclosures is that sellers cannot mislead consumers by withholding relevant information if consumers have rational expectations and there are no costs to disclosing the information (Milgrom (1981) and Grossman (1981)). The logic is that if a seller does not fully disclose all relevant information about a product, consumers will assume the worst about whatever the seller chooses not to disclose, and this will reduce consumers' willingness to pay.²² These theories assume that sellers can choose not to disclose information, but cannot make false disclosures because claims are verifiable ex post. When applied to drip pricing, these theories suggest that sellers could not profit from drip pricing if consumers have rational expectations and there are no costs to the sellers of disclosing additional fees. If a seller disclosed a price without explicitly saying that there are no hidden fees, consumers would conclude that the seller is disclosing only part of the price.

Several economic models of drip pricing and similar practices confirm this logic. In Lal and Matutes's (1994) model of loss leader pricing, sellers advertise the price of one product and consumers must incur travel costs to observe the price of the sellers' other product. The model assumes that consumers have rational expectations and that they all want each of the two products. Consumers expect sellers to set the price of the unadvertised product at the monopoly level. Unless a seller discounts the price of the advertised good by enough to make up for the

²² The theory assumes that consumers with rational expectations know the relevant dimensions of the product and its price and will notice if the seller omits information pertaining to any of these dimensions.

high price of the unadvertised product, consumers will not travel to the store. In equilibrium, sellers set the monopoly price for the unadvertised product as consumers expect, and pass through the entire price premium from the unadvertised product as a discount to the price of the advertised product. Consumer welfare and firm profits are the same with loss leader pricing as they would be if the firms had advertised the prices of both products.

Aftermarket monopoly is another practice similar to drip pricing (Waldman 2012).²³ In the traditional aftermarket monopoly framework, consumers purchase a base product that requires a complementary product at some point after the initial purchase, like a photocopier and toner cartridge. The consumer has a choice of firms from which to buy the base product, but once this choice is made, the consumer must buy the aftermarket product from the same firm so the base product and aftermarket product will be compatible. Consumers with rational expectations consider the price of the aftermarket product when deciding which firm's base product to buy. If consumers expect a firm to charge a high price for the aftermarket product, the firm will have to offer a sufficiently large discount to the price of the base product to make its "system" competitive, where a system consists of the base product and the aftermarket product. Therefore, if consumers have rational expectations, they cannot be harmed by aftermarket pricing.

One argument for why consumers may be harmed by high aftermarket prices is what Shapiro (1995) refers to as the "costly information" theory. According to this theory, if many consumers are poorly informed about aftermarket prices, firms will not have the incentive to discount the base product price. However, Shapiro (1995) counters that even consumers who are poorly informed about aftermarket prices are unlikely to be harmed as long as a sufficiently large

²³ Aftermarket monopoly models were developed to examine the Supreme Court's 1992 decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451 (1992).

number of consumers are informed and the market is competitive. The presence of informed consumers would induce firms to discount the price of the base products and, unless firms could price discriminate, they would have to charge the same price to the uninformed consumers. Moreover, even if a firm could charge a higher price to uninformed consumers than to informed consumers, competing firms would educate the uninformed consumers and offer them a better deal.

Although the above models suggest that consumers would not be harmed by drip pricing, several other models of drip pricing show how consumers could be harmed from the practice (Ellison (2005), Gabaix and Laibson (2006), and Farrell (2012)). In Ellison's (2005) model of add-on pricing, consumers differ in their preferences for add-ons. Each firm sells a base product with an optional add-on and discloses the price of its base good, but consumers must incur search costs to learn the price of the add-on. Consumers correctly expect firms to set the monopoly price for the add-on, and firms discount the price of the base product so consumers will have the incentive to incur the search costs to visit the firm. Consumers who buy the add-on pay more than they would if the price of the add-on were disclosed upfront, but those who do not buy the add-on pay less. Under certain assumptions about consumer preferences, firms would pass through only part of their add-on profits, so total profits would be higher with add-on pricing than with transparent pricing, and consumer welfare would be lower.²⁴ For add-on pricing to be an equilibrium strategy in Ellison (2005), one of two conditions must hold: there exist some consumers who do not anticipate that the firm will charge monopoly prices for the add-ons, or there are costs to advertising add-on prices.

²⁴ For firms to profit from add-on pricing in Ellison (2005), consumers with high willingness to pay for the add-on must be less price-sensitive than consumers with low willingness to pay for the add-on. In this case, consumers who value the add-on more highly are less likely to switch in response to discounts from a competing firm. To avoid attracting too many consumers who do not buy the add-on, firms would limit their discounts to the base price.

Gabaix and Laibson (2006) develop an aftermarket-like model in which they assume that some consumers are “myopic” and others are “sophisticated.” “Myopic” consumers behave as if the firm will charge nothing for add-ons and base their purchase decisions on the posted price alone. “Sophisticated” consumers expect firms to charge add-on fees. If they expect add-on fees to be high, they will find alternative sources for the add-ons. For example, “sophisticated” consumers may park at a low-priced lot across the street from a hotel instead of using the expensive hotel parking lot, or keep a large checking account balance to avoid paying overdraft fees. As in the other models, firms charge high prices for add-ons and pass through the add-on profits as discounts to the price of the base product. The market is competitive and firms pass through all of the profits from high add-on prices and earn zero profits overall.

“Myopic” consumers are worse off than they would be under transparent pricing because they alone pay for the high-priced add-ons. “Sophisticated” consumers are better off because they receive discounts to the base price without paying the firm’s high prices for the add-ons. They incur some cost for their alternatives to the firm’s add-ons (e.g., parking across the street from the hotel), but less than they would if they bought the add-ons from the firm.

In Gabaix and Laibson (2006), competition and the presence of “sophisticated” consumers do not protect “myopic” consumers. Unlike the aftermarket market model described above, firms have no incentive to educate “myopic” consumers and offer them transparent pricing. Although “myopic” consumers would be better off purchasing from a firm that used transparent pricing, after being educated, “myopic” consumers would recognize that they would be better off patronizing a firm that used drip pricing, as long as they found a lower-priced source for the add-on. Therefore, they would not switch to a firm that offered transparent pricing.

This means that it would be difficult for a firm to use transparent pricing in a market where other firms use drip pricing.

Farrell (2012) describes a framework in which drip pricing could reduce price elasticity (i.e., the responsiveness of consumers' demand to price) by making it more difficult for consumers to compare prices. In this framework, consumers can see the posted price, but only partially observe the firms' hidden fees. By hampering consumers' ability to compare prices, drip pricing could make consumers less responsive to price changes, which would reduce the elasticity of demand. Firms would have less incentive to compete for consumers by cutting price, and prices would be higher than they would be under transparent pricing.

Chetty et al. (2007) present a theory in which consumers incur cognitive costs to compute the total cost of a product, including sales tax. In most retail establishments, sales tax is not included in the posted product price and is charged at the register when the consumer completes the transaction. The theory helps explain the empirical finding in Chetty et al. (2009), described in more detail later, that consumers underestimate the tax-inclusive price of products.

To summarize, the theoretical models in the economics literature find that rational expectations would prevent consumers from being harmed by drip pricing and related practices. Consumers with rational expectations would recognize when firms are likely to charge undisclosed additional fees, and would refuse to purchase the product unless the firms offered sufficiently large discounts to the advertised component of the price. However, several theories identify departures from rational expectations that could cause consumers to be harmed by drip pricing. First, some consumers could fail to anticipate the existence of additional fees or the high prices of add-ons (Gabaix and Laibson (2006)). Second, the lack of transparency of the additional fees could cause consumers to underestimate the total price (Chetty et al. (2007)) or

reduce their ability to compare prices (Farrell (2012)). Under these conditions, drip pricing would cause at least some consumers to pay higher prices than they would pay if prices were transparent (Ellison (2005), Gabaix and Laibson (2006), Chetty et al. (2009), and Farrell (2012)).

The studies differ on whether drip pricing is profitable for firms. In Ellison (2005) and Farrell (2012), firms profit from drip pricing, but in Gabaix and Laibson (2006), they do not. Nonetheless, Gabaix and Laibson (2006) show that consumers can be harmed from drip pricing even if it is not profitable to firms. Despite the lack of profitability, firms cannot quit using drip pricing when other firms use drip pricing or their prices would look higher than their competitors' prices and consumers would not buy their product.

B. Empirical Studies of Drip Pricing

This section reviews several empirical studies of drip pricing that have implications for resort fee disclosures. Huck and Wallace (2010) conducted an experiment to assess how drip pricing affects consumers' search and purchase decisions. Ellison and Ellison (2009) examined how the initial price listings on a comparison-shopping site affect consumers' search and purchase decisions. Chetty et al. (2009) assessed the extent to which consumers consider sales tax when making purchase decisions.

Huck and Wallace (2010) conducted an experimental study of drip pricing that examined subjects' responses to mandatory fees. The subjects were students from University College London. The study compared subjects' shopping behavior in transparent and drip-pricing settings. In the transparent setting, a firm revealed the total price of its product as soon as subjects entered the virtual store. In the drip-pricing setting, subjects saw the base price upon entering the store and learned about additional fees (mandatory postage and handling fees) only after initiating the purchase. The fees were per unit charges, so the total price per unit equaled the base price plus the two fees. Subjects had to pay a search cost to visit a store. If subjects

thought that the price at the first store was too high, they could visit a second store, but had to incur another search cost.

In the drip-pricing setting, once subjects decided to buy one or more units of the product and began checking out, they would see the first mandatory fee and would have to click to proceed. Then they would see the second mandatory fee and would have to click again to proceed. Finally, they would see the total price, and the itemization of base price and both mandatory fees, and would have to click to confirm the purchase. Subjects had the ability to terminate the purchase after seeing each of the mandatory fees, and again after seeing the total price per unit.

The experiment compared the utility of each subject to the hypothetical maximum utility that the subject would have obtained had he or she made optimal search and purchase decisions at every decision point in the experiment. Subjects received points that represented utility from the units of the product purchased and lost points when they incurred search costs. The utility per unit of the product (i.e., points) declined with the number of units purchased. The subjects knew the range of prices offered by different sellers in the market.

The results show that, in the drip-pricing setting, subjects were more likely to make “buying mistakes” than the subjects in the transparent setting, where “buying mistakes” included buying when it would have been optimal to continue searching, and buying too many units of the product, given the price. Terminating the search prematurely caused drip-pricing subjects to pay higher prices than subjects paid in the transparent pricing setting, and buying too many units of the good magnified the harm from paying too high a price. The drip-pricing subjects behaved as if they thought the price was lower than it was, even though they saw the total price before they actually purchased the goods and had several opportunities to terminate the transaction after

learning about additional fees. It is as if the subjects in the drip-pricing treatment made their purchase decisions after seeing the initial base price and were reluctant to revise their decisions after they learned about the surcharges. After going through the drip-pricing scenario multiple times, subjects made fewer buying mistakes, but still made more mistakes than the subjects made in the transparent price setting.

The Huck and Wallace (2010) results show that drip pricing affected the subjects' decisions of whether to buy or continue searching. Consumers' search costs consist of the monetary costs of search plus the cost of the time and cognitive effort involved. In the experiment, the monetary component of search costs was the same for subjects in both the drip-pricing and the transparent settings. Therefore, the tendency of the drip-pricing subjects to terminate search prematurely relative to those in the transparent setting implies that drip pricing increased the time or cognitive effort to make a decision, or both. When consumers make buying decisions based on the low initial price, they may be reluctant to incorporate new pricing information because rethinking their decision would require additional cognitive effort.

Ellison and Ellison (2009) assessed how initial price ranks viewed by consumers on a comparison-shopping site affected their search and purchase decisions. Specifically, they examined the effect that the price ranks of sellers' lowest-priced offerings had on the demand for the sellers' more expensive products. They conducted the analysis using online sales of computer memory modules advertised on a price search engine, PriceWatch. Under a specific product category, such as 128MB PC100 memory modules, PriceWatch listed product offerings sorted by price. The offerings varied by quality and other features, such as warranty return policy. To learn more about each offering, or to make a purchase, a consumer would need to click through to the seller's website.

To conduct the study, the authors created price ranks for the 12 or 24 lowest-priced offerings for four categories of memory modules from PriceWatch,²⁵ and obtained quantity, price, and sales data from two brands that advertised through PriceWatch. Each of the two brands for which the authors collected additional data offered a low-, medium-, and high-quality product in each of the four memory module categories.

While technically not drip pricing, because the higher-quality products were not simply the base product with optional add-ons, the results from Ellison and Ellison (2009) are consistent with drip-pricing theories that show consumers being harmed when firms reveal only part of the price initially.²⁶ Ellison and Ellison (2009) found that firms charged high margins for the medium- and high-quality products and passed through some, but not all, of the resulting profits by discounting the price of the low-quality product. Discounting this product improved (i.e., lowered) a firm's low price rank. The profit margins for the low-quality product ranged from -2.5 percent to 4.3 percent, but the profit margins for the medium- and high-quality products ranged from 15.6 percent to 17.3 percent. Because the pass-through of profits was not complete, firms profited from their strategy of discounting the low-quality product to attract consumers to its more expensive, higher-quality products. This result is consistent with the theoretical predictions in Ellison (2005).

The results also provide evidence on how drip pricing affects consumer search behavior. Consumers were highly sensitive to the price rank of the seller's lowest-quality product. If a product's price rank increased from one (the lowest price) to seven (seventh-lowest price), its demand fell by 83 percent. Interestingly, a seller's lowest price rank also increased the demand

²⁵ The authors collected the 24 lowest prices for the 128MB PC100 and 128MB PC133 categories and the 12 lowest prices for the 256MB PC100 and 256MB PC133 categories.

²⁶ For the purpose of the analysis, there is no substantive difference between selling several products of different quality, as in Ellison and Ellison (2009), and selling a base product with optional add-ons.

for its medium- and high-quality products, even though the rank pertained only to the seller's low-quality product. This suggests that consumers who bought the higher-quality products were attracted to a firm's initial low price rank in the search engine, but did not conduct a complete search of the firms' higher-quality products.²⁷

Chetty et al. (2009) examined the retail practice of posting prices net of sales tax and listing sales tax and the total amount due at the end of the transaction, a practice that can be viewed as another example of drip pricing. Chetty et al. (2009) describes two studies that the authors conducted to examine the extent to which consumers account for sales tax when making purchase decisions. The first study was a field experiment in which the authors estimated the effect on demand of posting tax-inclusive prices, along with the pre-tax prices, for several grocery products. The results show that including the 7.375 percent tax in the posted price reduced demand by about 8 percent relative to the same products sold in nearby stores, and other products in the same aisle of the treatment store, for which sales tax was not included in the posted price. This implies that consumers underestimated the effect of the sales tax on total price when sales tax was not included in the posted price.

One potential problem with this study is that consumers may have been wary of the non-standard labels for the products in the test group. To address this concern, the authors conducted a second study that compared the effect of excise and sales taxes on beer demand between 1970 and 2003. Unlike sales tax, retailers include excise tax in the posted price. By estimating demand over time, the authors were able to identify consumers' responses to changes in the two types of

²⁷ Ellison and Ellison (2009) provide evidence that the price ranks of the higher-quality products were not the same as the price ranks of the low-quality products. First, the price ranks of the low-quality products changed frequently, but the prices of the higher-quality products were changed infrequently. Second, while they do not know the price ranks of the higher-quality products for all the suppliers that advertise through PriceWatch, they do know the relative prices of all the products sold by the two brands in the demand analysis. They show that a consumer's choice of these two brands is influenced by the price ranks of the sellers' low-quality products after controlling for the price differences of the products sold by the two brands.

taxes. The study found that beer sales are more sensitive to excise tax than to sales tax, showing that consumers respond more to a tax when it is included in the posted price. This is consistent with the results of their first study, which also found that consumers respond more to sales tax that is included in the posted price.

To assess whether the results could be explained by a lack of knowledge of the sales tax, the authors conducted a survey at the treatment store from the first study to determine whether consumers had a good understanding of the sales tax rate and the items taxed. The results showed that most consumers were well informed about sales tax rate and the items taxed, making it unlikely that lack of information explained consumers' failure to fully account for sales tax.

To summarize, several findings from the empirical research on drip pricing are relevant for resort fees. First, drip pricing causes consumers to behave as if the price is lower than it is. In Huck and Wallace (2010), subjects exposed to drip pricing paid higher prices than consumers who faced transparent prices. In Ellison and Ellison (2009), consumers were influenced by the price ranks of sellers' low-priced products when buying more-expensive products. In Chetty et al. (2009), consumers underreacted to sales tax in their purchase decisions when the tax was not included in the posted price.

Second, drip pricing can increase search costs and cause consumers to search less than they would if fees were included in the advertised price. In Huck and Wallace (2010), subjects exposed to drip pricing searched less than those facing transparent prices. In Ellison and Ellison (2009), consumers relied on the price ranks of sellers' low-quality products when they purchased higher-quality products for which these price ranks were not relevant. This shows that consumers who purchased the higher-quality products did not conduct a complete price comparison of the higher-quality products. Omitting mandatory fees from the prices displayed in

a comparison listing would force consumers to search for information that could easily be added to the displayed price.

Third, the evidence suggests that drip pricing increases the cognitive costs of making purchase decisions. In Huck and Wallace (2010), subjects went through with purchases after learning about additional fees that made it optimal to continue searching. They behaved as if they did not want to expend the cognitive effort to incorporate the new information in their decisions.²⁸ Chetty et al. (2009) found that consumers do not fully account for sales tax in their purchase decisions even when they have a good idea of the tax rate and the items taxed.

Fourth, the studies offer some evidence on the effect of experience on how consumers respond to drip pricing. Huck and Wallace (2010) show that consumers made fewer buying mistakes as they gained experience with the drip-pricing experiment, although, as previously noted, repeated exposure to drip pricing in the experiment did not completely eliminate buying mistakes caused by the pricing practice. Chetty et al. (2009) do not explicitly consider the effect of consumer experience on the tendency to underreact to sales tax. However, because the product categories in the study were familiar to consumers, and consumers had a good idea of the tax rate and the items taxed, it seems unlikely that additional experience would have improved their ability to better account for sales tax.

C. Empirical Studies of Partitioned Pricing

The research on drip pricing helps to explain the effect of initially disclosing only part of the product's price, but it is also important to understand how consumers react to prices that are partitioned into components when the components are disclosed simultaneously. Several

²⁸ These cognitive costs can be thought of as part of consumers' search costs, because consumers must evaluate each search option to determine its value. However, some search costs are not cognitive costs. For example, the time cost of searching increases when consumers have to search longer to learn about additional fees.

experimental studies of partitioned pricing examine how consumers react to prices that are disclosed in this manner.

Morwitz et al. (1998) hypothesize that consumers confronted with partitioned pricing will use a cost-benefit analysis to decide how to estimate the total price. The potential benefit of any particular computational method is coming up with an estimate that is more accurate. The expected cost is the time and cognitive effort that the strategy will require. For example, someone could attempt to calculate the total price as the sum of the base price and surcharge. Alternatively, they could use a simplifying heuristic to combine the base price and surcharge. The latter would be less accurate, but would be easier and less time consuming than attempting to add the numbers together. Finally, they could ignore the surcharge entirely. This would be the least accurate method, but also the least costly in terms of time and cognitive effort.

The authors tested their hypothesis in an experimental study in which they showed subjects a base product price along with a surcharge, but did not reveal the total price. When the price information was no longer present, they asked the subjects to recall the total price. Some of the subjects recalled a total that was close to the actual total price. Others appeared to ignore the surcharge, recalling a price that was close to the base price. A third group came up with an answer that was not very close to either the total price or the base price. On average, the subjects in the partitioned pricing group underestimated the total price relative to subjects who were given the actual total price up front. The results are consistent with the hypothesis that consumers face cognitive costs of adding partitioned prices together, and that partitioned pricing leads to errors in the perception of total price.

The way the surcharge is presented can also affect how much partitioned pricing causes consumers to underestimate the total price. Morwitz et al. (1998) found that the extent to which

the subjects underestimated total price was greater when the surcharge was in percentage form than in dollar form. Kim (2006) found that the font size of the surcharge altered the effect of the form of the surcharge. Specifically, he found that when the surcharge was in the same size font as the base price and was disclosed as a dollar amount, the average recalled price was close to the actual total price. However, when the surcharge was in a smaller font than the base price, subjects underestimated the total price whether it was reported in either dollar or percentage form.

While not specifically a partitioned pricing study, Caplin et al. (2011) show that when subjects must perform simple calculations to evaluate each search option, increasing the number of options reduces the likelihood that the subjects will choose the most valuable option. In the experiment, subjects were given several options to choose from, where each option was a dollar amount broken down into components. The subjects had to add and subtract the components to determine the total for each option. The results showed that increasing the number of options made it less likely that subjects would find the most valuable option. Note that these results did not stem from the lack of salience, because all the numbers appeared in the same font. These results lend credence to the possibility that partitioned pricing will increase consumers' cognitive costs more when searching multiple options than when evaluating a single option.²⁹

An important question is why, if consumers face cognitive costs of adding surcharges to the base price, they would tend to underestimate the total price rather than coming up with a wrong answer that was as likely to be too high as too low. Morwitz et al. (1998) show that one reason subjects underestimate total price on average is because some of the subjects seem to

²⁹ The study required subjects to perform addition and subtraction computations with numbers in word form, such as three plus five minus seven. The numbers were whole numbers less than 10. In contrast, the room rates and resort fees are typically more complicated numbers that would be more difficult to add, like \$229 and \$35.84.

disregard the surcharge. Another possible explanation is that, when adding up numbers, people may use a heuristic referred to as anchoring and adjustment. Research shows that consumers sometimes overweight the anchor information (e.g., the base price) and adjust insufficiently for the rest of the information (e.g., the surcharge). Tversky and Kahneman (1974) describe an example of anchoring and adjustment that involves computation. Two groups of high-school students were asked to estimate a numerical expression in five seconds. One group was given the expression $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$, while the other group was given the same expression in reverse order: $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$. Both groups underestimated the total (40,320), but the median estimate given for the descending sequence (2,250) was higher than that of the ascending sequence (512). This result suggests that the students anchored on the numbers at the beginning of the sequence and adjusted insufficiently for the rest of the sequence.

In addition to causing consumers to underestimate total price, partitioned pricing can highlight product features that are associated with the mandatory surcharges. In experimental research, Bertini and Walthieu (2008) show when prices are partitioned, subjects pay more attention to secondary attributes associated with surcharges than when price is listed as a single amount. In particular, they found that if the secondary attributes were considered to be a good deal, given the amount of the surcharge, partitioned pricing increased the subjects' preference for the product. If the secondary attributes were considered a bad deal, given the surcharge, partitioned pricing reduced their preference for the product. Importantly, however, Xia and Monroe (2004) found that when the total price is provided first and the partitioning information is given later, purchase intentions and perceived value increase as much as they do under pure

partitioned pricing.³⁰ This eliminates misperceptions of price while retaining the increase in perceived value from the partitioning information.

To summarize, research on partitioned pricing finds that when price is broken down into a base price and a surcharge, and the total is not disclosed, consumers tend to underestimate the total price. This effect is stronger when the font size of the surcharge is smaller than that of the base price. Partitioned pricing can also influence consumers' purchase intentions aside from its effect on perceived price, for example, by highlighting the secondary product features that are associated with the surcharge. However, reporting the total price first and the partitioned pricing later results in perceived value that is as high as partitioned pricing alone.

IV. Implications of the Literature for Resort Fee Disclosures

There are several implications of the drip pricing and partitioned pricing studies for the resort fee disclosures discussed in section II. First, partitioned pricing research shows that when price is divided into a base price and a surcharge, consumers tend to underestimate the total price, even when the two components of the price are revealed simultaneously. Some consumers ignore the surcharge. The tendency to underestimate the total price or to ignore the surcharge is heightened when the surcharge is in a smaller font size than the base price. These results suggest that disclosing the resort fee separately from the room rate, and in a smaller font, such as in

³⁰ Specifically, Xia and Monroe (2004) compare partitioned pricing with what they call "reverse partitioning," in which the total price is provided first and then the partitioning information is provided. The results show that there are no statistical differences in purchase intentions, satisfaction with the price, perceived value, and search intentions. They do find that perception of store trustworthiness is higher with partitioned pricing than with reverse partitioning. This result implies that when consumers are forced to calculate the total price, they perceive that the store is more trustworthy than if the total is presented to the consumers along with the partitioning information. It is difficult to interpret this result, and no theoretical explanation is offered by Xia and Monroe (2004). Note that improvements in the perceived trustworthiness of the seller would be a benefit to consumers if it provided a true signal of the seller's trustworthiness. However, in this experiment, the trustworthiness measured is only consumers' perception of trustworthiness, and does not depend on the seller's underlying trustworthiness. Using partitioning to increase trustworthiness for a fraudulent seller could harm consumers.

Figures 1b and 2a, may lead consumers to believe that the total price is lower than it actually is, or even worse, to ignore the resort fee disclosure.

Second, drip pricing increases search costs. Huck and Wallace (2010) showed that when mandatory fees were not included in the initially posted price, participants searched less and paid higher prices than when the posted price included mandatory fees. Ellison and Ellison (2009) found that consumers relied on the price ranks of sellers' low-quality products when they purchased higher-quality products instead of conducting a thorough price comparison of the higher-quality products. Not including mandatory fees from the prices displayed in a comparison listing would force consumers to search for information that could be added to the displayed price.

Third, Chetty et al. (2009) showed that consumers underreacted to sales tax, even when they had a good idea of the tax rate and the items taxed. This implies that omitting surcharges from the price can increase consumers' cognitive costs of computing the total price. Consumers who try to recall hotel resort fees from memory when searching may face higher cognitive costs than they would if resort fees were included in the advertised room rates.

Fourth, Huck and Wallace (2010) show that revealing the total price later in a transaction does not completely correct misimpressions obtained from initial incomplete price disclosures. The initial impression of price that consumers obtain when resort fees are excluded from the posted price may have a lasting effect on their choice.

Fifth, the empirical studies suggest that experience may not completely eliminate the search and cognitive costs created by resort fees (Huck and Wallace (2010), Chetty et al. (2009)). In Huck and Wallace (2010), participants repeated the drip-pricing scenario 10 times. This repetition reduced, but did not eliminate the tendency of consumers to under-search and pay

higher prices. Importantly, the repetitions took place over the short period of an experiment, during which a participant could remember that a firm used hidden fees and develop a search method that accounts for them. Consumers who encounter resort fees once a year, or less frequently, may not have enough exposure to resort fees to learn to expect them and adapt their search behavior. Chetty et al.'s (2009) finding that consumers underreact to sales tax even when they have a good idea of the tax rate and items taxed suggests that experience does not eliminate the cognitive cost of remembering and accounting for hidden fees. This research suggests that even experienced consumers who are aware that some hotels charge separately-disclosed resort fees may incur higher cognitive costs because of the fees.

For consumers who are searching across several sellers that use partitioned pricing, it may be even more difficult to recall price than under the conditions of the partitioned pricing experiments. When searching for hotel accommodations, consumers would have to remember the base room rate and the resort fee for each hotel. They would either have to remember the room rate and resort fee for each option separately, or add the room rate and resort fee together for each option and remember the total. It seems plausible that having to recall multiple pieces of price information and make multiple mental calculations throughout the search process would increase the likelihood of mistakes in recalling the total price charged by various sellers.

In summary, the empirical studies of drip pricing and partitioned pricing suggest that, unless the total price is disclosed first, separately-disclosed hotel resort fees are likely to increase the search and cognitive costs of finding hotel accommodations. Forcing consumers to click through additional webpages to see a hotel's resort fee increases the cost of learning the hotel's price. Separating the room rate from the resort fee increases the cognitive costs of calculating and remembering the hotel's price. When it becomes more costly to search and evaluate an

additional hotel, a consumer's choice is either to incur higher total search and cognitive costs or to make an incomplete, less informed decision that may result in a more costly room, or both.³¹

V. Implications of the Literature for Hotel Pricing, Profitability, and Competition

Economic theory predicts that firms that use drip pricing will earn a high margin from the additional fees and discount the initially advertised base price of the product.³² This discounting passes through some or all of the profits from the fees back to consumers. This is not a desirable outcome from the firms' perspective, but is a consequence of competition.³³ Similar to other firms that use drip pricing, hotels that charge resort fees are expected to discount the advertised room rate to attract customers.³⁴

The theories are mixed on whether firms will be able to retain some of the profits from drip-pricing fees. In Gabaix and Laibson (2006), firms pass through all of their profits from drip pricing while in Ellison (2005) and Farrell (2012), firms profit from drip pricing. Ellison and Ellison's (2009) empirical study finds that firms advertising memory modules through a comparison-shopping website pass through some, but not all, of their profits from drip pricing.

³¹ As mentioned earlier, paying more for hotel accommodations could mean paying more for a room of the same quality or booking a room that is of higher quality, and more expensive, than the one they would have chosen had the resort fee been included in the initially posted price.

³² Note that if consumers do not fully account for the resort fee in their booking decisions, the magnitude of the resort fees would not be constrained by consumers' willingness to pay. Gabaix and Laibson (2006) suggest that when firms use drip pricing, the additional fees are constrained by the possibility of a firm losing repeat business and by possible legal and regulatory actions. In addition, hotels may limit the magnitude of resort fees to reduce the complaints that hotel desk clerks must handle.

³³ Farrell (2012) explains that even a monopolist using drip pricing would discount the base price of the product to some extent. Because the additional fees are profitable, the monopolist lowers the base price of the product to sell more of the product and earn more profits from the fees. However, a monopolist would not pass through all of the profits.

³⁴ To the extent that partitioned pricing causes consumers to underestimate the total price of the product, these results should hold for partitioned pricing disclosures as well as for drip-pricing disclosures. If consumers underestimate the total price of a product that has a partitioned price, firms would tend to set the total price higher than if the price were reported as a single number. Competition would likely cause firms to discount the base price of the product.

The use of resort fees by hotels departs from the drip-pricing theories in some respects. First, in the drip-pricing theories, all firms adopt the same strategy in equilibrium. Either all firms use drip pricing or none of them do. However, there are hotels that do not charge resort fees in markets where resort fees are common. The drip-pricing theories do not explain how these hotels will respond to drip pricing. It is possible that these hotels are not good substitutes for resort fee hotels, and their pricing will not respond much to the adoption of resort fees. For example, hotels that do not charge resort fees may appeal to different types of consumers than resort fee hotels. This is consistent with the observation that of the 40 hotels on The Strip in Las Vegas, the five hotels that do not charge resort fees either are apartments, such as the Penthouses at the Jockey Club, or are branded budget hotels, such as Travelodge Las Vegas Center Strip.³⁵

One question is why competition does not force all hotels to abandon separately-disclosed resort fees? To convince consumers that a hotel without a resort fee was a better deal than hotels that charge resort fees, the hotel would have to advertise to attract the consumers who would otherwise stay at hotels that charge resort fees. However, for years, Caesars Entertainment tried this approach but eventually gave up and began charging resort fees.³⁶

The experience of Caesar's Entertainment may suggest that it is difficult for a hotel not to charge a separately-disclosed resort fee when competing hotels charge such fees. The prices of hotels that charge separate, mandatory resort fees will appear lower than the prices of hotels that do not charge the fees, even if the total prices are the same. Consumers are attracted to resort fee hotels because they advertise the lowest upfront price. If search and cognitive costs did not exist, consumers would ultimately find the hotel of the quality they wanted at the lowest price.

³⁵ Based on Travelocity.com search on June 22, 2016.

³⁶ "Caesars to start charging resort fee, says guests demand them." Las Vegas Sun, Ron Sylvester, February 21, 2013. Retrieved November 23, 2016 from <http://lasvegassun.com/news/2013/feb/21/caesars-hotels-will-start-charging-resort-fees/>.

However, if separately-disclosed resort fees increase search and cognitive costs, it would be harder for consumers to discover a hotel with no resort fee that offers a better deal. This situation suggests a “Prisoner’s Dilemma” style game where the efficient outcome cannot be achieved because any hotel offering a better deal without a resort fee will lose business to competitors charging separate resort fees and lower advertised room rates.

OTAs also have incentives to advertise room rates that do not include resort fees. If an OTA included resort fees in the advertised room rates, it may lose customers to competing OTAs and hotel websites that do not include resort fees in the advertised room rates and appear to have lower prices.

VI. Hotel Industry Arguments Supporting Resort Fees: Bundling and Commissions

Hotels have publicly stated that there are two major benefits of resort fees. First, resort fees allow hotels to provide resort services to hotel customers for less than if they sold the services individually. Second, resort fees reduce the commissions that the hotels pay OTAs for booking their rooms. This section analyzes each of these arguments.

A. Bundling

Hotels that charge resort fees give their guests access to certain “resort services.” These are services that many hotels make available to their guests without resort fees, by either including them with the room or offering them for additional fees. Common resort services include internet access, access to the swimming pool or health club, parking, or shuttle service. Hotels that charge resort fees do not bundle all services with the room; they typically charge additional fees for optional services that are not included with the resort fee. In addition, hotels

that charge resort fees do not always include the same resort services with the fee, so knowing that a hotel charges a resort fee does not reveal which services the hotel includes with the fee.

The AH&LA says that resort fees benefit consumers by bundling services with the room. “Mandatory resort fees were created in an effort to provide consumers with the best value by grouping amenity fees into one cost.”³⁷ They provide “guests with a better value for these services that would otherwise cost more if charged individually.”³⁸

Bundling theory predicts that when hotels bundle resort services and include them with the room, it is optimal to charge less for the bundle than the sum of the prices of the individual services.³⁹ To explain the logic using a hotel example, suppose that one consumer has a high willingness to pay for internet access and lower willingness to pay for the swimming pool. Another consumer has a high willingness to pay for the swimming pool and lower willingness to pay for internet access. If the hotel offered the two services individually, it would set the profit-maximizing price for each service. One consumer would purchase internet access and the other would purchase access to the swimming pool. If the hotel bundled the services with the room and set the price of the bundle as the sum of the individual prices, neither consumer would buy the bundle. The hotel would have to set the bundled price lower than the sum of the individual prices to induce both consumers to buy the bundle.

The hotel would choose the pricing method (bundled or separate) that maximized its profits. One factor it would consider is the prevalence of consumers with very low willingness to

³⁷ See AH&LA (2016) “Setting the Record Straight on Resort Fees.” Retrieved November 23, 2016 from <http://www.hospitalitynet.org/news/4076955.html>.

³⁸ AH&LA, “The Facts on Mandatory Resort Fees.” Retrieved November 23, 2016 from <https://www.ahla.com/facts-mandatory-resort-fees>.

³⁹ The analysis of bundled pricing in this paragraph is based on Adams and Yellen (1976). They assume the firm is a monopolist. However, even in markets where hotels are not monopolists, bundling would be feasible if there is imperfect competition stemming from location and brand preferences.

pay for either service. If a hotel bundled the services, it may lose these consumers, as they would be better off at a hotel where the services were optional.

While bundling resort services lowers the cost of the services relative to individual pricing, a hotel could provide bundled resort services without charging a separately-disclosed resort fee. A hotel could include the resort fee in the room rate and continue to bundle the services with the room.

The AH&LA states that consumers like separate resort fees, citing the results of a recent poll that 70 percent of consumers have a “positive perception of breaking apart mandatory resort fees from the cost of the room.”⁴⁰ This is consistent with the ability of partitioned pricing to accentuate secondary features of the product (Bertini and Walthieu (2008)). Nonetheless, research shows that when the total price is disclosed upfront, and partition information provided later, consumers have the same perceived value of the product as with partitioned pricing (Xia and Monroe 2004). This result suggests that including resort fees in the posted price and disclosing the price breakdown later would not reduce consumers’ perceived value of the room and services offered by the hotel.

Moreover, research by Repetti et al. (2015) provides a different view of consumers’ preferences for separately-disclosed resort fees versus including the cost of the services in the room rate. The research was based on an online survey of participants who were at least 18 years old and had taken an overnight leisure trip within the previous six months. Participants were presented with the choice of an inclusive room rate of \$165 or a room rate of \$140 plus a \$25

⁴⁰ See “Get the Facts on Mandatory Resort Fees,” citing Axis Nationwide Public Opinion Poll. April 6-10, 2016. Retrieved November 23, 2016 from https://www.ahla.com/sites/default/files/Resort_Fees_Overview_0.pdf.

resort fee. When asked to choose their preferred rate structure, 67 percent preferred the inclusive room rate, even though the total price was the same under both options.⁴¹

One could argue that resort fees would make it easier for consumers who want particular resort services to find a suitable hotel. It is not always easy to learn a hotel's fee schedule for optional services, and charging a separately-disclosed resort fee could provide a signal to consumers that the hotel bundles services with the room. The problem with this argument is that hotels do not include the same resort services with their resort fees. In addition, even hotels that charge resort fees include only a few services with the room and charge additional fees for other services. Therefore, simply knowing that a hotel charges a resort fee would not tell consumers which services were included with the room. Moreover, to the extent that there is some signaling value to resort fees, hotels could list the total price with a disclosure that the price includes a resort fee.

This paper does not argue that hotels should be prohibited from bundling services with their rooms. Hotels should be able to decide whether to bundle services or to make them optional for additional fees. As mentioned above, a hotel would choose the alternative that maximizes its profits, and this depends on consumers' preferences for services. The issue discussed in this paper is how the price of bundled services is disclosed to consumers: hotels that bundle services with the room, thus requiring all consumers to buy them, should include the cost of the services in the advertised room rate. Disclosing the total price of the room upfront would facilitate consumer search, because consumers would not have to click on additional links or add components of the price together to learn the price of a room.

⁴¹ The services included with the room under inclusive pricing and resort fee pricing were onsite parking, airport shuttle, fitness center access, internet/Wi-Fi, and in-room bottled water.

B. Resort Fees and OTA Commissions

Hotels raise the concern that including the cost of bundled services in the room rate, rather than charging a separate resort fee, would increase the commissions they pay to OTAs. Hotels pay commissions to OTAs for booking their rooms to consumers. These commissions are typically a percentage of a hotel's room rate.

Economic theory predicts that if hotels are contractually required to pay commissions on resort fees that are included in the posted room rate, the increase in total commissions would likely be temporary. To see why, it is helpful to consider the problem in reverse. Suppose a hotel reduced its room rate and began charging a resort fee. Because the room rate is lower than it was, the hotel would pay less in commissions to the OTA. However, the OTA and hotel periodically renegotiate the commission rate that is used to calculate the hotel's commission payments. An OTA's bargaining position in this negotiation depends on the revenue and profits the hotel earns from rooms booked by the OTA and the cost to the hotel of booking rooms through other distribution channels. Even though the hotel reduced the room rate, the OTA still generates the resort fee revenue for the hotel for the rooms that it books. Separating the resort fee from the room rate does not change the bargaining position of an OTA in its negotiation with a hotel. Since an OTA knows how much resort fee revenue a hotel receives from rooms booked through the OTA, it will be able to negotiate higher commission rates to make up for the commissions lost on resort fee revenue.

If the hotel then begins disclosing its resort fee in the room rate, and has to pay commissions on the resort fee revenues, the same process would happen in reverse. The hotel would be paying more in commissions to the OTA, although the total revenues booked through the OTA had not changed. This would make the hotel's alternative channels of distribution relatively attractive. If the OTA did not reduce the commission rate to account for the additional

revenue from the resort fees, the hotel could promote its other channels and reduce the bookings made through the OTA⁴². Since the OTA knows this, the hotel should be able to negotiate a lower commission rate with the OTA.⁴³

However, it is not clear that disclosing resort fees in advertised room rates would have even a temporary effect on commissions. If hotels continue to charge resort fees and collect them at the hotel, but include them in the room rate for the purpose of disclosure, then hotels may be under no obligation to pay commissions on their resort fees. OTA websites could include the total price on their initial listings, but continue with their current practice of itemizing resort fees on their booking pages and listing how much is due to the OTA and how much is due later at the hotel. Whether hotels would have to pay commissions on resort fees under these circumstances is a contractual issue between the hotels and OTAs and is beyond the scope of this paper.

This section has evaluated the hotels' main arguments in favor of resort fees, that they allow hotels to provide resort services for less than if they sold the services individually, and that they reduce the commissions that the hotels pay OTAs for booking their rooms. These justifications do not withstand scrutiny. First, hotels could bundle resort services with the room without charging a separately-disclosed resort fee. Second, it is unrealistic to believe that hotels could artificially reduce their commission payments to OTAs in the long run by separating the resort fee from the room rate. Similarly, if a hotel must pay commissions on resort fees that are disclosed in the room rate, they should be able to negotiate lower commission rates with the

⁴² Although the OTAs have been growing, hotels still book most of their rooms through other channels. A recent study found that only about 17 percent of US hotel bookings are made through OTAs. See "Hotel Industry Assails Expedia-Orbitz Deal," Craig Karmin and Drew Fitzgerald, *Wall Street Journal*, August 6, 2105. Retrieved November 23, 2016 from <http://www.wsj.com/articles/hotel-industry-assails-expedia-orbitz-deal-1438833841>.

⁴³ If a hotel chain negotiates the same commission rate with an OTA for all of the hotels in the chain, and only some of the hotels in the chain charge resort fees, then the OTA commission should be less sensitive to the resort fee.

OTAs. Therefore, the major cost of disclosing resort fees in the room rate would be the cost to hotels and OTAs of modifying their online disclosures.

VII. Conclusion

This paper has used the economics and consumer behavior literatures on drip pricing and partitioned pricing to evaluate the likely economic consequences of disclosing resort fees separately from hotel room rates. This analysis finds that separating mandatory resort fees from posted room rates without first disclosing the total price is likely to harm consumers by increasing the search costs and cognitive costs of finding and choosing hotel accommodations. Forcing consumers to click through additional webpages to see a hotel's resort fee increases the cost of learning the hotel's price. Separating the room rate from the resort fee increases the cognitive costs of remembering the hotel's price. When it becomes more costly to search and evaluate an additional hotel, a consumer's choice is either to incur higher total search and cognitive costs or to make an incomplete, less informed decision that may result in a more costly room, or both.

Hotels could eliminate these costs to consumers by including the resort fee in the advertised price. They could still bundle the same resort services with the room and charge the same total price. They could also list the components of the total price separately, as long as the total price is the most prominently disclosed price. Hotels would also have the option, as they do now, of changing to unbundled, optional resort services, which would not be included in the advertised price.

This analysis has not found any benefits to consumers from separately-disclosed mandatory resort fees that could not be achieved by first listing the total price and then disclosing the resort fee. While charging a resort fee may augment consumers' utility by highlighting resort

services, this benefit could be achieved by listing the total price first and disclosing the breakdown later. Any increase in commissions that hotels would have to pay by disclosing the resort fee with the room rate would likely be temporary. The major cost of disclosing resort fees in the room rate would be the cost to hotels and OTAs of modifying their online disclosures.

In sum, the literature suggests that separating mandatory resort fees from posted room rates without first disclosing the total price is likely to harm consumers by artificially increasing the search costs and the cognitive costs of finding and booking hotel accommodations. Unless the total price is disclosed up front, separating resort fees from the room rate is unlikely to result in benefits that offset the likely harm to consumers.

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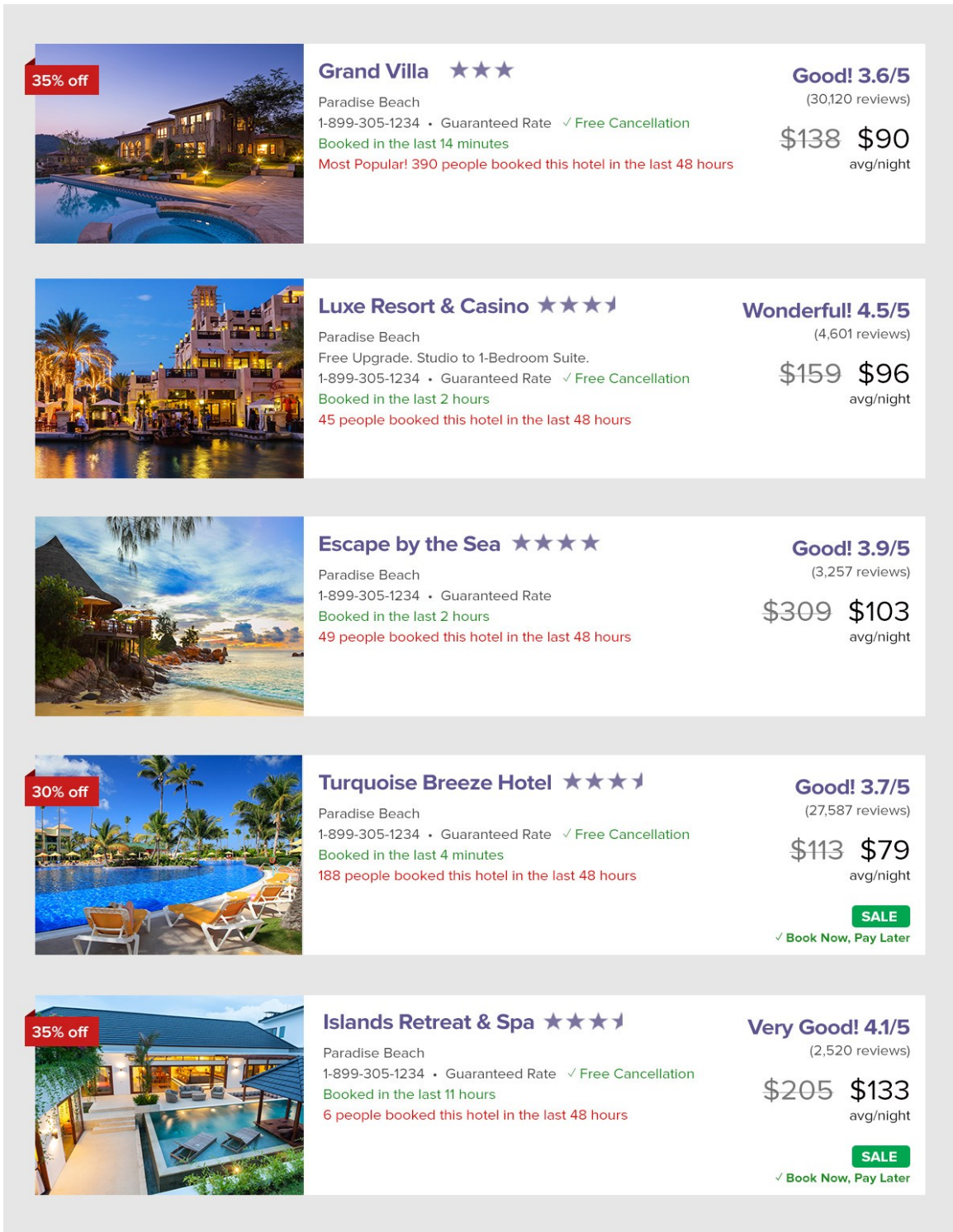



Figure 1a: OTA-X.com comparison listing of hotels (mock-up of actual OTA comparison listing).

Home Vacations **Hotels** Cars Flights Cruises Deals Featured

◀ Back to results [Paradise Beach](#) | Fri, Apr 29 - Mon, May 2 | 1 Room Book online or call -1-899-214-3079

Luxe Resort & Casino ★★★★★

Paradise Beach 1-899-305-1234



\$159 ~~\$96~~ Book

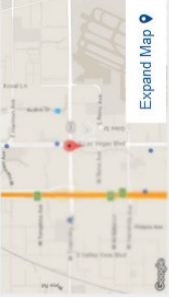
Excludes \$29/12 daily resort fee

Good!

75% of guests recommend

4.5 out of 5 Guest Rating

View all 4,601 Guest Reviews



Expand Map

Points of Interest

Tortuga Grill - .5 miles

Grand Garden Arena - 1.2 miles

View all on Map

SPONSORED LISTINGS

Grand Villa Deals


Cheap Rooms - Perfect for Families! Save up to 60% off Regular Rates. Handpiled Family Deals

Best Casinos

Looking for a Meeting Hotel in Miami? Book AIAHotel Expo Fiera!

Hotels in Paradise Beach

Discover the world's lowest hotel rates. Save Up To 40%, book now!



Show more photos

Figure 1b: OTA-X.com listing for the Luxe Resort & Casino, hotel page (mock-up of actual OTA hotel page)

Secure booking - only takes 2 minutes!

Book online or call -1-899-214-3079

Act fast! Pricing and availability may change Free cancellation before Tue, Apr 26 Last step to confirm your reservation!

[Sign in to book faster](#)

Traveler info

Room 1: 2 Adults

Free internet

Contact name *

First and last name

Country code *

United States of America +1

Mobile phone number *

So the hotel can reach you

Text me my confirmation. Standard rates may apply.

[Smoking/Bedding requests \(optional\)](#)

[Special Requests \(optional\)](#)



Luxe Resort & Casino

★★★★

Paradise Beach

1 Room: Tower Room

Check-in: Apr 29, 2016

Check-out: May 2, 2016

3-night stay

24 hour deal: save 35%

Room 1: 2 Adults

3 Nights

Taxes & Fees per night

avg./night

\$96.38

\$11.57

Total due today:

Due at hotel

\$323.85

\$97.36

Trip Total \$411.21

Rates are quoted in US dollars.

[Price Guarantee](#)

Figure 1c: OTA-X.com booking page for Luxe Resort & Casino (mock-up of actual OTA booking page).


1. SELECT DATES 2. ROOM CHOICES 3. YOUR RESERVATION 4. REVIEW & BOOK

ARRIVAL **APR 29**
FRI

DEPARTURE **MAY 2**
MON

2 GUESTS

[Flexible Travel Dates](#)

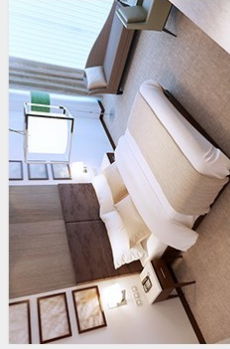


RESORT ROOM
3 NIGHT STAY
[Show Room Details](#)

510 | BED | 1
SQUARE FEET | ASSIGNED AT CHECK-IN | BATH

Room Subtotal \$287.00
\$295.67
Avg/night | [Details](#)
Plus \$35.84 daily resort fee (tax incl.)

[BOOK THIS ROOM](#)




RESORT KING
3 NIGHT STAY
[Show Room Details](#)

510 | 2 | 1 | 1
SQUARE FEET | MAX GUESTS | KING | BATH

Room Subtotal \$247.00
\$315.67
Avg/night | [Details](#)
Plus \$35.84 daily resort fee (tax incl.)

[BOOK THIS ROOM](#)




RESORT QUEEN ROOM
3 NIGHT STAY
[Show Room Details](#)

510 | 4 | 2 | 1
SQUARE FEET | MAX GUESTS | QUEEN-SIZED BEDS | BATH

Room Subtotal \$277.00
\$325.67
Avg/night | [Details](#)
Plus \$35.84 daily resort fee (tax incl.)

[BOOK THIS ROOM](#)



RESORT TOWER KING
3 NIGHT STAY
[Show Room Details](#)

626 | 2 | 1 | 1
SQUARE FEET | MAX GUESTS | KING COE BED | BATH

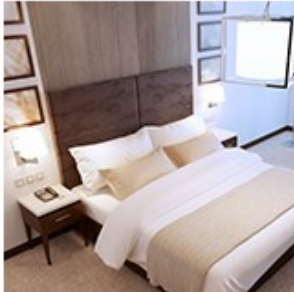
Room Subtotal \$292.00
\$330.67
Avg/night | [Details](#)
Plus \$35.84 daily resort fee (tax incl.)

[BOOK THIS ROOM](#)

[Flexible Travel Dates](#)

Figure 2a: Hotel Y website, room selection webpage (mock-up of actual hotel website room selection page).

RESERVATION SUMMARY



RESORT ROOM

3 NIGHT STAY
Fri, Apr 29, 2016 to
Mon, May 2, 2016

\$ 887.00
Room Subtotal
[Details](#)

[Remove Room](#)

[ADD ANOTHER ROOM](#)

[SAVE TO ITINERARY](#)

[ADD SPECIAL REQUESTS](#)



Room Subtotal	\$887.00
Taxes	+ \$106.44
Resort Fee & Tax	+ \$107.52
RESERVATION TOTAL	\$1,100.96
Deposit Due Now	\$334.88
Balance Due Upon Check-In	\$766.08

Figure 2b: Hotel Y website, booking page (mock-up of actual hotel website booking page).