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Based on the limited public information to date, there has been significant speculation about the reasons for the EC's prohibition of the *Booking/eTravel* merger. In this article, we draw on theoretical work in the economic literature to consider what factors might be important to consider, particularly the scale of any shopping costs (costs that consumer incur from visiting multiple different firms) and the risks of foreclosure or increased barriers to entry. In this context, the scale of shopping costs has contrasting implications; high shopping costs both increase the risk that the merger results in foreclosure or increased barriers to entry, and also increase the expected benefits to consumers of permitting it. The shopping costs approach is only one possible theory of harm connected to ecosystems. However, we might expect to see similar dynamics emerging in relation to other theories too, in which the source of the efficiency is also the source of the potential harm. The critical link between efficiencies and potential anti-competitive effects thus makes it particularly important for competition authorities to balance these impacts in their merger assessments.

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The recent European Commission (“EC”) prohibition decision of the proposed merger between Booking and eTraveli has generated significant interest as a rare EC prohibition in the technology sector. Analytically, it has also generated interest as an example of a merger prohibited primarily on the basis of an ecosystem theory of harm – that is, the EC did not appear to be particularly concerned by traditional horizontal or vertical effects, but instead emphasised that the merger would enable Booking to strengthen its position through an expansion of its travel services ecosystem.

Such ecosystem effects can raise challenges for traditional merger analysis, as there is no necessary link between the products involved – they may be neither substitutes nor complements. As of yet, there is limited public information on the analytical approach that the EC adopted in this case. There is also limited academic literature to draw upon to consider such ecosystem theories of harm – a notable exception is a recent article by Chen & Rey (2023), which assesses the theory of conglomerate mergers particularly in the context of bundling, but with some discussion of shopping costs too.²

In this note, we outline a framework based around longstanding theoretical work on one-stop shopping effects and merger control, in particular Klemperer & Padilla (1997).³ We show that this suggests an inextricable link between the potential benefits of a merger and its potential harms. That is, the risk of foreclosure only emerges in this framework as a result of the reduced costs that consumers face.

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I. BACKGROUND

A. Booking/eTraveli

Online travel agencies (“OTAs”) provide an important service for the travel industry. They match the demand of travellers to the supply of hotels, flights, car rentals, etc. In the European Economic Area, the OTA market is worth over €100bn, with accommodation services being the largest segment, worth around €40bn.⁴

Booking is the leading provider of OTA services. It is mostly active through its Booking.com brand, which primarily offers accommodation OTA services. Since 2019, Booking.com has provided customers with flight OTA services via an arrangement with eTraveli. In 2022, Booking had worldwide revenues of \$17.09bn.⁵ Worldwide, 896 million accommodation nights and 23 million flights were booked through Booking in that year.⁶

eTraveli is one of the main providers of flight OTA services in Europe. It supplies its services through various brands.⁷ Additionally, eTraveli’s services are provided to third parties via partnerships, such as with Booking.com. eTraveli is owned by Flugo – a Swedish limited liability company controlled by the private equity firm CVC Capital Partners. eTraveli reports that it services over 30 million passengers per year.⁸

B. Merger Process

In November 2021, Booking announced its plans to acquire eTraveli for €1.6bn.⁹ The deal was not challenged by the U.S. Federal Trade Commission and was cleared at phase 1 by the CMA in September 2022. The CMA concluded that the transaction would not result in a substantial

² Zhijun Chen & Patrick Rey, “A Theory of Conglomerate Mergers,” TSE Working Paper No.1447, June 2023.

³ Paul Klemperer & A. Jorge Padilla, “Do Firms’ Product Lines Include Too Many Varieties?,” The RAND Journal of Economics, Autumn, 1997, Vol. 28, No. 3, pp. 472-488.

⁴ European Commission (2023), “Mergers: Commission prohibits proposed acquisition of eTraveli by Booking.”

⁵ Statista (2023), “Revenue of Booking Holdings worldwide from 2007 to 2022.”

⁶ Statista (2023), “Number of bookings through Booking Holdings worldwide from 2010 to 2022.”

⁷ FlightNetwork, GoToGate, MyTrip, and SuperSaver.

⁸ eTraveli group (2023), “News and media,” Passengers per year statistic.

⁹ The deal was for all of eTraveli’s brands except for Flygessor, which would have been retained by CVC. Flygessor offers flight metasearch services, primarily in Sweden.

lessening of competition, in particular because “*eTraveli is not a particularly significant customer retention and/or acquisition channel for suppliers of accommodation OTA services in the UK.*”¹⁰

However, the EC prohibited the merger in September 2023, following a prolonged phase 2 investigation. The EC concluded that “*the transaction would have strengthened Booking’s dominant position in the hotel OTA market, leading to higher costs for hotels and, possibly, for consumers.*” It stated that “*The transaction would have allowed Booking to acquire a main customer acquisition channel,*” and that it “*would have allowed Booking to expand its travel services ecosystem,*” ultimately resulting in “*increased barriers to entry and expansion*” and “*higher cost for hotels and, possibly, consumers.*”¹¹

Booking has said that it will appeal the prohibition decision to the European Court, claiming that the EC is “*wrong on both the facts of the case and the law applicable to this transaction.*”¹² Booking’s CEO Glenn Fogel criticised the decision strongly, arguing that it would dampen investment in Europe, and that it sends the message that “*if you are a big company you can’t improve your services by acquiring a smaller company.*”¹³

C. Wider Context – Ecosystems and Tech Mergers

The *Booking/eTraveli* prohibition has attracted significant attention partly because it is only the second EC prohibition of a tech sector merger since 2009, after the 2022 withdrawal of the proposed merger between NVIDIA and Arm following multiple competition authorities’ concerns. This could suggest a more general movement to take a tougher stance in the tech sector, as the CMA appears to have done in recent years. Between January 2017 and June 2022, the CMA reviewed 21 tech mergers, with five of them being either prohibited or cancelled. Within the same period, the EC reviewed 40 tech mergers, one of which was cancelled and nine cleared with remedies.¹⁴

II. ANALYTICAL FRAMEWORK

There is relatively limited economic literature that appears relevant to this case, with much of the existing work focussed on the competition concerns raised by tying or bundling (which does not appear to have been a factor in the EC’s decision). In this article, we consider instead one-stop shopping effects, drawing on Klemperer and Padilla (1997)’s work on the impacts of shopping costs.

A. Description of Model

Klemperer and Padilla develop a model in which firms can offer different products and consumers face a cost of shopping at multiple different suppliers. For instance, this cost could be a cost of visiting several physical stores, or a cost of registering for multiple different websites and understanding how to search on them effectively. Such costs can also be thought of as multi-homing costs. In empirical studies, they are often found to be sizeable.¹⁵

The paper describes a basic model to explore the impact of shopping costs on product ranges:

- a. Several firms produce the same good (X) that all relevant customers want – in this case, this might be accommodation OTA services.
- b. One of those firms (Firm 1) introduces another good (Y) that a consumer might choose to buy alongside the initial good – in this case, this might be flight OTA services.
- c. Consumers face shopping costs – that is, if they buy the two goods from the same firm, they only have to pay one lot of costs, but if they buy them separately, they will have to pay twice.

10 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), para. 9, November 4, 2022.

11 European Commission, [Mergers: Commission prohibits proposed acquisition of eTraveli by Booking](#), September 25, 2023

12 Reuters (2023), [“Booking to challenge EU antitrust veto against eTraveli deal.”](#)

13 Javier Espinoza (2023), Financial Times, [“Booking chief hits out at Brussels for blocking €1.6bn eTraveli deal.”](#)

14 Data from Kirsten Edwards-Warren (2022), [“Have European authorities been stricter with tech mergers?”](#) Prohibited mergers include those that were withdrawn. The EC data does not include simplified procedures.

15 See, for instance, Andrea Pozzi, “Shopping Cost and Brand Exploration in Online Grocery,” *American Economic Journal: Microeconomics*, August 2012.

- d. In the model, consumers place a higher value on good X than on good Y, such that consumers always wish to purchase good X if it is free, but consumers never wish to purchase good Y alone in the face of shopping costs.

In this setting, Klemperer and Padilla find that, once Firm 1 introduces good Y:

- a. More consumers will choose to shop at Firm 1 than before, as some consumers desire good Y and do not wish to incur double shopping costs;
- b. Firm 1 will lower the price for good X to increase sales of good Y, thereby lowering the sales and profits of all other firms selling good X;
- c. Consumer surplus will be higher if Firm 1 chooses to produce good Y, as more of good X will be sold at a lower price, and because of consumer benefits arising from good Y;
- d. This can (but does not always) lead to a situation where entry is excessive from the perspective of society as a whole. This is because, while the introduction of good Y benefits Firm 1 and consumers, it can harm the profits of other firms in the market sufficiently that overall social welfare falls.

In this simple setting, therefore, the presence of shopping costs can have important impacts on market outcomes, as it results in more custom for a multi-product firm than would otherwise be the case, and lower custom for firms that only sell one product.

B. Application to Ecosystem Mergers

The basic model of Klemperer and Padilla describes a firm expanding its product range by introducing a novel product; some examples given in the paper include stores opening on Sunday or throughout the night, or airlines serving more routes. It does not reference the term ecosystem, and it does not explicitly attempt to model mergers (although it discusses them). Despite this, the model can provide some helpful insights into ecosystems and ecosystem mergers.

One key aspect of the model is the absence of bundling as a defining feature; the effects it highlights manifest regardless of whether the firm chooses to bundle its products together. This mirrors the dynamics of a digital ecosystem, where platform companies will often offer one-stop shops that aim to fulfil multiple consumer needs, but often do not require consumers to buy products as part of a bundle (and offer limited or no discounts for doing so).

Ecosystems, and ecosystem mergers, therefore have a number of the features described in the model above: within a market for a certain product (in *Booking/eTraveli*, hotel OTA), a single firm expands its portfolio of products to add an additional good (in *Booking/eTraveli*, flight OTA). There is no explicit expectation of tying or bundling, and instead the proposed consumer benefits rely on reducing shopping costs and an enhanced consumer experience compared to competitors.

C. Insights into assessing ecosystem TOHs

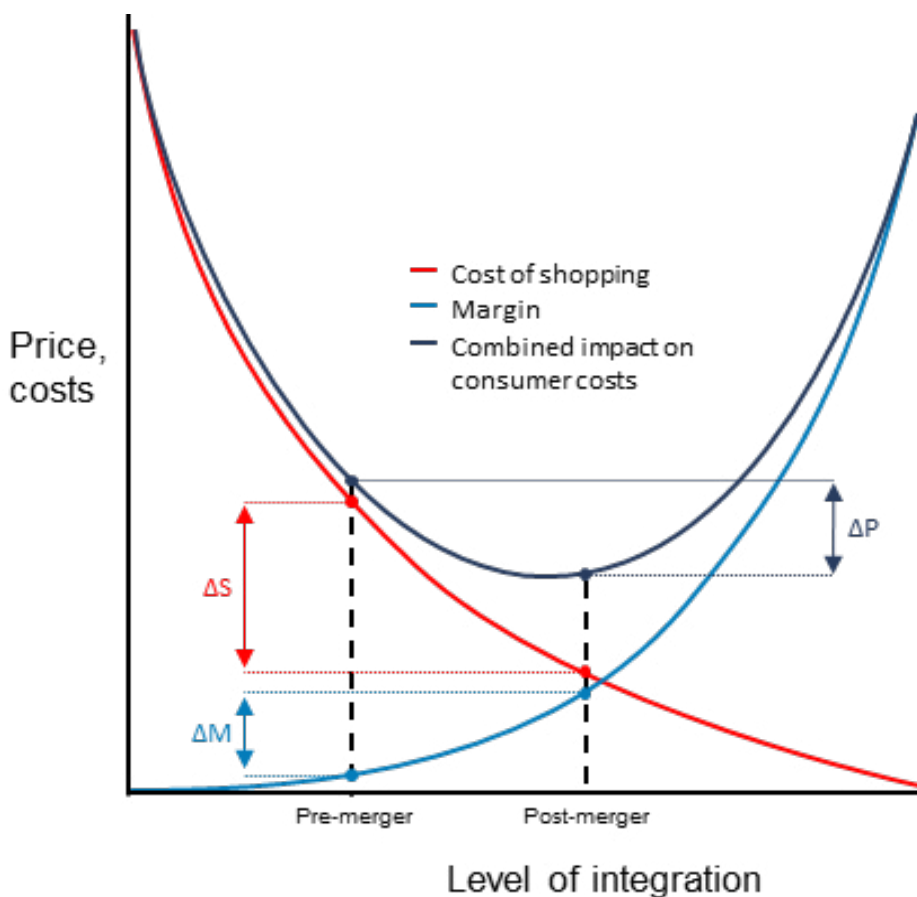
The model outlined by Klemperer and Padilla suggests the following general insights for ecosystem mergers and possible theories of harm:

- **The extent of shopping costs matter:** Shopping costs have both positive and negative implications:
 - i. The higher shopping costs, the greater the expected consumer benefits from expanded ecosystems, through factors such as reduced search times and membership costs.
 - ii. The higher shopping costs, the more likely other competitors will be harmed through lower profits whilst the merging firms' position will strengthen.
- **Consumers will typically benefit from a merger of this type, as a result of reduced shopping costs.** Even if competitors suffer from an ecosystem merger, the impact on consumers will typically be positive. This is a straightforward efficiency benefit, albeit one that differs from the process or product improvements that are more usually analysed.
- **However, consumer harms can emerge particularly when there are risks of foreclosure or of increased barriers to entry.**

- i. Ecosystem mergers could lead to foreclosure effects, as high shopping costs push customers towards the merged entity and lower competitor profits. If, in the basic setting of Klemperer and Padilla, a merger was to result in one or more of the suppliers of good X exiting the market, this could harm competition and thus consumer welfare.
- ii. An ecosystem merger in this context could also raise barriers to entry. If the merger means that a new entrant would need to be able to produce both goods, rather than just one, this would be likely to make it harder for firms to enter either market, with potential longer-term impacts on competition and consumers.¹⁶

One possible relationship between shopping costs and outcomes is illustrated in Figure 1. The red line shows how shopping costs fall as a result of greater integration between firms (such as a merger that adds an extra product line). The blue line shows how margins could increase due to greater integration (in particular if one or more other firms is foreclosed as a result). The black line illustrates the total impact on consumer prices net of shopping costs. In this illustrative example, the merger would reduce total consumer costs, since the reduction in shopping costs would outweigh an increase in margins.

Figure 1: Possible relationship between shopping costs and outcomes



Source: Compass Lexecon analysis

This is a “Goldilocks” case, in that the optimum involves integration being neither too high nor too low. But it is also possible that increased integration does not raise prices (for instance because there is no foreclosure), which would suggest integration could continue to increase, or that foreclosure takes place at low levels of integration, which might suggest banning any merger.

A “Goldilocks” region between forces that increase efficiency and those that reduce competition is common, but it is important to recognise that this efficiency operates differently from the typical case. It is not independent from the theory of harm – in this case, entrenchment of the ecosystem. Typically, if an authority dismisses claims that consumers will benefit from a merger or considers them over-optimistic, the

¹⁶ This is similar to some of the theories of harm associated with bundling. See, for example, Nalebuff, B. “[Bundling as an Entry Barrier](#),” *Quarterly Journal of Economics*, February 2004.

potential harm is unaffected. Here, removing shopping costs is the *mechanism* that both attracts customers and (potentially) harms competitors. So, if the theory of harm is substantiated, it will also generate benefits that need to be assessed and may or may not offset the effect. And if there are limited benefits, then the theory of harm may fail – meaning there is no negative effect that requires benefits to offset.

In the next section we consider at high level what the CMA's report on the merger suggests about shopping costs and consumer harms and benefits in the case of *Booking/eTraveli*. This is not intended to be a full assessment of the costs and benefits of the merger, not least because it is based on information about the firms in the UK rather than in the EC. Rather, it aims to illustrate how this analytical framework could help to organise the available information.

III. THE CMA'S FINDINGS

The principal theory of harm assessed by the CMA was that the merger might raise barriers to entry and expansion in the supply of accommodation OTA services in the UK. In this context, it considered all of the factors raised above to some extent. It concluded that, for reasons including the small scale of shopping costs, it was unlikely that the merger could have anti-competitive effects.

A. Shopping Costs were Limited

The CMA did not explicitly analyse shopping costs, but much of the evidence it presented was on the linkage between accommodation and flight bookings from the perspective of consumers. This included consumer surveys and evidence of current consumer behaviour.

The CMA noted that “*Consumer surveys conducted by Booking found that the majority of accommodation bookings do not happen at the same time as flight bookings, ... which would, in practice, limit the opportunities for cross-selling. Further, consumer surveys show that only a limited proportion ... of consumers buy another travel product from their chosen supplier of accommodation OTA services.*”¹⁷ It further found that UK flight consumers who used Booking.com for booking flights were no more likely to use it for booking accommodation than consumers who had not used Booking.com. Similarly, internal documents from Booking indicated that UK consumers tended to book flights and accommodation on different platforms at different times.¹⁸

Overall, the CMA concluded that: “*the available evidence indicates that travel is a discrete, infrequent, high-value purchase, that UK consumers are price- and quality- sensitive and currently tend “shop around” rather than purchasing multiple travel services from the same provider. While there is some evidence that consumer behaviour may be evolving. ... there is no evidence that the extent of this change is such that the ability to cross-sell travel ... could become a significantly more important capability for an accommodation OTA supplier than it is at present.*”¹⁹

The CMA's statements are therefore consistent with a view that shopping costs for UK consumers are relatively low. For instance, it noted that travel is a “*discrete, infrequent, high-value purchase, meaning consumers will generally be incentivised to continue shopping around when booking travel services. This is generally likely to limit the opportunity to “lock-in” customers on a long-term basis.*”²⁰

B. Consumer Benefits were Limited

The CMA does not discuss potential consumer benefits in detail; this is unsurprising in the context of its finding that there was no substantial lessening of competition that might need to be offset by benefits to consumers. However, it does note that the main motive for the transaction from the perspective of Booking was as part of its “Connected Trip” strategy – its aim to create a one-stop shop offering a range of travel services to consumers, including flights and financial services as well as accommodation.

The CMA describes the rationale for this strategy as being: to create a service proposition that is hard for competitors to replicate; to drive consumer frequency and loyalty; and to become the distribution channel of choice for travel service providers. It states that evidence indicates that the “*Connected Trip is one of Booking's key strategies to protect and grow its accommodation OTA business on Booking.com in the coming years.*”²¹

17 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), para. 107, November 4, 2022.

18 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), paras 107 and 110, November 4, 2022.

19 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), para. 115, November 4, 2022.

20 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), para. 111, November 4, 2022.

21 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), paras 30 and 31, November 4, 2022.

This therefore suggests that Booking, at least, did perceive there to be substantial consumer benefits of a one-stop shopping approach, in contrast to the evidence the CMA found on consumer behaviour in practice. It is unclear how this apparent contradiction can be reconciled; perhaps the CMA thought that Booking was mistaken, or perhaps there are larger one-stop shopping benefits to consumers in other jurisdictions.

C. Limited Impact on Risks of Foreclosure and Barriers to Entry

The CMA quickly concluded that foreclosure (using Booking's strength in accommodation to exclude rival flight OTAs) was unlikely in the context of this transaction, for instance because of eTraveli's modest market position in the UK and the popularity of booking flights directly from the airline.²²

However, it was more concerned about the potential for the transaction to increase barriers to entry. It found that there were currently material barriers to entry and expansion in the supply of accommodation OTA services in the UK, and that the indirect network effects in the market²³ make it difficult for small suppliers and new entrants to increase their customer base and accommodation inventory.²⁴

In this context, the CMA judged that, if the transaction were to increase the cost for rival firms to acquire customers, this could give rise to a substantial lessening of competition. However, it felt that there was currently little evidence that the transaction would have a material impact, because of the presence of several different routes to acquire customers and the modest market position of eTraveli. While there were some indications that consumer behaviour in purchasing travel online could change over time, there was little evidence that this would lead to a material reduction in the significance of alternative customer acquisition and retention channels. It therefore concluded that the transaction did not give rise to a substantial lessening of competition as a result of higher barriers to entry and expansion.²⁵

IV. CONCLUSIONS

Based on the limited public information to date, there has been significant speculation about the reasons for the EC's prohibition of the *Booking/eTraveli* merger. In this article, we draw on theoretical work in the economic literature to consider what factors might be important to consider, particularly the scale of any shopping costs and the risks of foreclosure or increased barriers to entry.

It is important though to note that this theory of harm is intrinsically open to criticism as an “efficiency offence” – that is, a case where the merger is blocked precisely because it increases the efficiency of the merging firms.²⁶ This is because the scale of shopping costs in this context has contrasting implications; high shopping costs both increase the risk that the merger results in foreclosure or increased barriers to entry, and also increase the expected benefits to consumers of permitting it. It is therefore crucial to weigh up both sides of this equation; implicitly, the CMA's findings suggest that **both** the benefits and costs of the transaction are likely to be relatively low in the UK.

While we believe that the existing theoretical literature can provide useful guidance to potential ecosystem theories of harm in the absence of bundling, there is much more that could be done to assess factors such as the likely impacts of a merger in the context of different forms of competition (for instance, in ad valorem fees rather than in quantities supplied) and differing levels of product differentiation. We expect to return to the topic in future work.

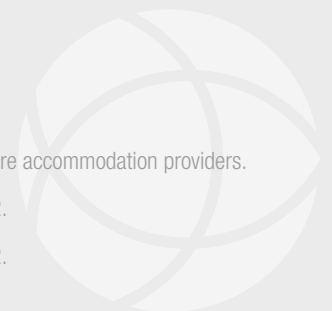
22 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), paras 131, November 4, 2022.

23 That is, accommodation providers benefit from there being more travellers on a platform, while travellers benefit from there being more accommodation providers.

24 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), paras 103 to 105, November 4, 2022.

25 CMA, [Anticipated acquisition by Booking Holdings Inc. of certain activities of eTraveli Group AB](#), paras 124 to 128, November 4, 2022.

26 See, for instance, Linklaters (2023) “[Flight cancelled: the EC's prohibition of the Booking / eTraveli deal](#)”



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