

## Bargaining and two-sided markets: the case of Global Distribution Systems (GDS) in Travelport's acquisition of Worldspan

Stefano VANNINI <sup>(1)</sup>

As emphasised in a series of recent articles <sup>(2)</sup>, the two- (or multi-)sided nature of a market should explicitly be considered in evaluating the existence and magnitude of possible anti-competitive effects. However, the relevance of the two-sided nature of markets depends on at least two elements: (i) indirect network externalities and (ii) pattern of subscription ('homing') to the platform. Under specific circumstances, in particular when indirect network effects are negligible, the standard 'one-sided' analysis of each side of the platform in isolation provides a simpler analytical framework and a reliable proxy.

*Indirect network externalities* (or cross-group externalities) arise when the value of a platform for users on one side is affected by the size of the users' network on the other side <sup>(3)</sup>. The willingness of customers on one side of the platform to pay in order to subscribe to a specific platform's provider then depends on the size of the network of users covered by that same provider on the other side of the platform <sup>(4)</sup>. For example, (i) the number of readers of a newspaper or magazine (or the audience of a TV broadcast) tends to attract advertisers, (ii) the number of customers of a supermarket chain (or shopping mall) tends to attract suppliers of products to be sold there, (iii) the number of holders of a given credit card increases the incentive for shops to accept the card.

Concerning the *subscription pattern*, whenever there are several providers of the same type of platform, customers on each side of the platform may choose to subscribe to one provider only ('*single-homing*') or to several providers ('*multi-homing*'). The concept of multi-homing covers both subscribers to all available platform providers ('full'

multi-homing) and to more than one (but not all) of them. A platform's customers also may pursue different subscription approaches both within and across sides, depending on preferences and possible differentiation among providers' offers.

### Multi-homing, single-homing and 'competitive bottlenecks'

As a general rule, multi-homing on one side of the market (say A) decreases incentives for multi-homing on the other side (say B). Assuming for a moment that users of group A choose full multi-homing, they are accessible by users of group B no matter what platform provider these users adopt. The marginal value, in terms of network externalities, for B users of subscribing to an additional provider is then limited or non-existent. Therefore, the incentive to multi-home on side B of the platform is correspondingly limited or non-existent. Reversing this reasoning, if single-homing is prevalent among B users, this represents an incentive for A users to multi-home, because network externalities would be positive and significant.

In other words, multi-homing prevailing on one side of the platform and single-homing on the other corresponds to a situation where indirect network effects are asymmetric and mostly arise on the single-homing side. This is the situation identified in economic literature as '*competitive bottlenecks*' <sup>(5)</sup>, which, in its most stylised version, boils down to full multi-homing on one side and single-homing with no exceptions on the other. In this case, as soon as platform providers manage to get enough of both sides on board <sup>(6)</sup>, they will be able to 'tip' the market in a way to allow them to extract rents from multi-homing A users. In this way, a platform provider can subsidise

<sup>(1)</sup> Directorate-General for Competition, Chief Economist Team. The content of this article does not necessarily reflect the official position of the European Communities. Responsibility for the information and views expressed lies entirely with the author.

<sup>(2)</sup> See Durand (2008), Evans (2008) and Rosati (2008).

<sup>(3)</sup> In contrast, 'direct' network externalities refer to the utility derived by a potential owner of a good (or user of a service) from the number of other owners of the same good (or users of the same service). In other words, it depends from the current size of the network of owners (or users).

<sup>(4)</sup> Nevertheless, a negligible (or even zero) number of additional users may still justify subscription in the case of a very low (or zero) price or collateral services provided only by that platform provider.

<sup>(5)</sup> See, for example, Armstrong (2006). It should be stressed that the literature tends to consider a pre-determined homing configuration (either explicitly or by adopting a specific set of assumptions inevitably leading to that pattern) and seldom derives the homing configuration as an equilibrium structure. A notable exception is Gabszewicz and Wauthy (2004).

<sup>(6)</sup> Evans (2003) discusses the 'chicken-and-egg problem' deriving from the fact that without demand from users on one side of the platform, no demand arises on the other side either. In some cases, this results in the need to even subsidise one group of users in order to get enough of the other group of users on board and trigger network effects.

single-homing B users willing to join its platform, for whom providers have to compete fiercely. Single-homing on side B supports rent extraction on side A because providers appear to A users as gatekeepers to a number of B users.

This extreme homing configuration (and related rent distribution pattern) is based on a series of assumptions: (i) that there is no differentiation among different platform providers, (ii) that customer preferences on the same side of the platform are sufficiently homogeneous and (iii) that customers on the multi-homing side have no bargaining power allowing them to limit rent extraction by the platform provider.

As soon as *differentiation* enters into play, in e.g. the functionalities and content provided by the platform provider, simultaneous multi-homing on both sides of the platform becomes possible in equilibrium. If, say, B customers have access to the same content no matter which platform provider is chosen, subscribing to an additional platform provider does not give access to additional content and the marginal benefit does not justify the additional subscription, unless the price is very low (or zero). But if different platforms give access to significantly different and complementary content (or functionalities), multi-homing may arise on side B of the platform even in the absence of indirect network externalities.

As to customers' preferences, there may well be some degree of *heterogeneity* within the same group, not only among customers belonging to different groups, so that single-homing and (different degrees of) multi-homing may coexist within the same group. For instance, some large customers need to have a backup solution in the event of technical failure of the default platform provider. Therefore, heterogeneity can also be a driver of multi-homing in the absence of indirect network externalities and differentiation.

Last but not least, customers on the multi-homing side A, for whom the platform's provider represents a gatekeeper to single-homing customers on side B, may have some countervailing *bargaining power*. For instance, they can divert some of their traffic and circumvent the platform, thereby decreasing the total rent available for extraction by the platform provider. While remaining able to extract the same rent in relative terms, as compared to the total rent available, the platform provider will still see its rent decrease in absolute terms because of the diversion. Faced with this possibility, the platform provider may well decide to make concessions to multi-homing customers in order to limit diversion (and the related erosion

of the total rent available for extraction). This is precisely the issue arising in the case examined in the next section.

## The case of a merger in the GDS market

A recent merger case provides an interesting illustration of this analytical framework <sup>(7)</sup>. In December 2006, the US firm Travelport, a subsidiary of the Blackstone Group (a US private equity and asset management firm), agreed to acquire Worldspan Technologies Inc. (another US company). This transaction was authorised on 21 August 2007 after a 'Phase II' investigation. Both merging parties provide travel distribution services, in particular through their respective 'global distribution systems' Worldspan and Galileo (Travelport's brand). These technical platforms match travel content provided by airlines, hotel chains, car rental services, etc. on one side, and the demand for such content as conveyed by travel agents on the other side <sup>(8)</sup>. In what follows 'GDS' (or more simply 'the platform') refers to a global distribution system, 'airlines' to the broader category of travel content providers <sup>(9)</sup> and 'agents' to travel agents.

As summarised in Figure 1, a GDS is a platform between two distinct groups of customers, airlines and agents <sup>(10)</sup>.

- On the one side of the platform, airlines provide travel content (namely prices and availabilities) to be included in the GDS offer to agents. Through the platform, airlines obtain access to a distribution channel, namely the network of agents using that GDS.
- On the other side of the platform, each agent subscribing to a GDS provides its customer base to airlines via the GDS. Through the platform, agents obtain efficient access to travel content, with facilities for price/content comparisons as well as an interface for centralised bookings from different sources.

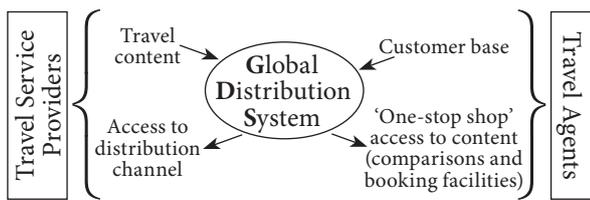
<sup>(7)</sup> Rosati (2008) also discusses this merger case.

<sup>(8)</sup> While it combined EEA number 2 (Galileo) and 4 (Worldspan), the merged company did not unseat Amadeus from its number one position in the EEA.

<sup>(9)</sup> The reasoning referring, for ease of exposition, to airlines applies *mutatis mutandis* to other travel content providers as well, as explained in footnote 22.

<sup>(10)</sup> More generally, following Evans (2003), *n*-sided platforms may be (i) 'coincident' platforms when they offer substitutable products or services on the same sides, (ii) 'intersecting' platforms when this is the case only for some ( $m < n$ ) sides, or (iii) 'monopoly' platforms when they have no competing providers on any side. GDS platforms are coincident, two-sided platforms.

**Figure 1 — The two-sided GDS market**



In other words, the existence of the GDS is justified by the value it creates in terms of (i) lower transaction costs (or higher efficiency) especially for agents and (ii) positive network externalities especially for airlines.

Reduced transaction costs mainly benefit agents by making their searches more effective and less time-consuming, as compared to searches using a number of airline-specific sources.

As regards network externalities, 'indirect' (i.e. cross-group) externalities for airlines make the two-sided nature of the market relevant for its analysis. In this specific case, indirect network externalities arise from the fact that the wider the network of agent outlets (and the related end-customer base) reached by airlines using a given GDS, the larger the value for airlines in using that platform.

The two sides of the GDS market exhibit some distinctive features. Firstly, airlines whose content is offered via GDSs tend to have a broader (pan-European or even global) coverage than agents using GDS services (only very few having a broader than national coverage)<sup>(11)</sup>. Secondly, virtually all airlines subscribe to all GDS providers<sup>(12)</sup>, whereas agents generally tend to use only one GDS<sup>(13)</sup>.

It should also be stressed at this point that the GDS is only one of different channels through which travel-related content can be distributed to end-consumers. However, these different channels may have different groups of customers on their respective sides. For instance, 'supplier.coms'

(i.e. booking facilities available on some individual airline websites<sup>(14)</sup>) address end-consumers instead of agents. Also, even when addressing the same customers as GDSs (i.e. agents), the functionalities provided by web-booking facilities may be limited. For instance, an agent may have a 'direct link' to the booking inventory of an airline, thereby bypassing GDS providers and the related fees, but at the cost of losing the price-comparison functionalities or of having to create in-house solutions to reproduce similar functionalities.

The limited substitutability between GDS platforms and alternative channels suggests considering a narrow product market for GDS, rather than a broader market including those other distribution channels as well.

### Multi-homing and single-homing in the GDS market

The two-sided GDS market contains a number of elements characteristic of the multi-homing / single-homing configuration (or 'competitive bottlenecks') described in economic literature. These elements are:

- (i) A limited degree of product differentiation;
- (ii) Asymmetries in indirect network effects, with indirect network externalities generated mainly if not exclusively on the agent side and GDS providers competing to attract agents in order to generate demand on the airline side;
- (iii) A distribution of prices and revenues skewed towards one side of the platform, with GDS providers obtaining profits on the airline side and partially using those profits to offset net losses on the agent side.

The number of 'reachable' agents (and the related customer base) is extremely important for airlines, because indirect network externalities generated on the agent side (e.g. in terms of booking volumes) depend on it and airlines may take advantage of this by multi-homing. For this reason virtually all airlines subscribe to all GDS providers<sup>(15)</sup>.

<sup>(11)</sup> American Express and Carlson Wagonlit represent examples of agents with pan-European or even global coverage.

<sup>(12)</sup> This pattern has some exceptions. Namely, among airlines, some low-cost carriers (such as Ryanair) and charter carriers do not distribute inventory via GDS at all. Also, some regional carriers subscribe to only some GDS providers to distribute their inventory.

<sup>(13)</sup> There are exceptions on this side of the market as well. Some agents do not use GDS services at all, a minority of agents subscribe to more than one GDS and only very few (but very important) agents subscribe to all GDSs. However, even agents subscribing to more than one GDS as a group tend to use only one at the level of individual outlets.

<sup>(14)</sup> Whereas a supplier.com is usually designed for end-consumers making their own bookings, certain airlines also offer specific web-booking facilities for agents, called Business to Trade ('B2T') sites.

<sup>(15)</sup> This is also the case for many car rental firms and hotel chains that tend to do the same. Concerning airlines, there are a few notable exceptions represented by low-cost carriers such as Ryanair and certain charter carriers that do not use GDS services at all. Also, certain regional carriers do not distribute their travel inventories through all GDS providers. More precisely, given that contracts between GDS providers and airlines are normally concluded on a global basis, an airline will tend to subscribe to all GDS providers relevant as distri-

If a sufficient number of airlines use multi-homing and all of them provide their full inventory, each GDS ends up providing a broadly similar content, which reduces (or removes altogether) the indirect network externalities generated on the airline side and the related added value for agents of subscribing to an additional GDS. Therefore, disregarding possible different functionalities made available by the GDS provider, agents will only need to subscribe to one GDS, especially where any additional subscription would incur significant additional costs. In fact, single-homing is the prevalent configuration observed on the agent side <sup>(16)</sup>.

A GDS provider must be in a position to offer a sufficiently broad network of agents (and related customer base) to airlines, and offer at least as good a content as competing GDS providers to agents, for which it will compete mainly through incentives, possibly complemented by some slight differentiation in terms of sophisticated functionalities.

The asymmetry in network effects and, correspondingly, in subscription policies between the two sides of the platform explains the skewed pricing policy applied by GDS providers and the related financial flows, namely the fact that agents tend to be net receivers and airlines net payers <sup>(17)</sup>. The larger the number of agents reachable via a given GDS, the higher the positive network externalities that are generated by that GDS and, correspondingly, the higher the price the airline will be willing to pay to distribute content via that GDS.

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bution channels to reach end consumers in the geographical markets of interest for the airline.

<sup>(16)</sup> Although additional operational costs may arise, multi-homing (or at least dual-homing) may become interesting above a certain scale of operation in order to provide a backup solution and reduce the risk of service disruption in the event of temporary system failure of the default GDS. It should be noted that (i) some agents do not use the services of a GDS at all, (ii) a minority of agents use multi-homing and (iii) only in exceptional cases will a travel agent's group subscribe to all GDS providers. However, even the few agent groups using multi-homing generally use single-homing at the level of individual outlets (that is to say, each outlet only uses one GDS).

<sup>(17)</sup> There are two types of financial flows between airlines, GDSs and agents. The first concerns the fees paid by the airline to the GDS for the distribution of its travel content and the net payments by the GDSs to the agents for their use of that particular GDS, for example incentive payments minus subscription fees and other fees such as the 'opt-in' fees discussed below. The second financial flow concerns payments made directly by the agents to the airlines for the travel service being purchased (for example, the flight, the hotel accommodation or the rental car) and any other fees due by the agents to the airlines (for example, possible surcharges for 'opting out', as discussed below).

But GDS providers have to compete for agents, so that they have to share with them, in the form of incentives, part of (and in extreme cases all) the rents that can be extracted from airlines <sup>(18)</sup>. Agents become net receivers as soon as the subscription fees charged to agents by the GDS provider are more than offset by incentive payments paid to them by the GDS provider <sup>(19)</sup>.

In this relatively simplified situation, airlines are clear contributors, while the GDS and agents share in some way the rents extracted from airlines. All this is driven by the limited product differentiation and by asymmetries in network effects, generating the skewed distribution of prices and related revenue flows.

## Recent market developments

The situation in the GDS market has recently evolved and is no longer so clear-cut. Until now, it has been implicitly assumed that (i) the provision of content by an airline is a discrete choice, i.e. whether or not to make an airline's entire inventory available, resulting in limited differentiation between GDS interface/providers (in terms of functionalities or technical assistance, as discussed below) and (ii) GDSs are the only distribution channel available for travel-related content.

On the first issue, airlines do have the capability to withhold specific content and even to discriminate between GDS providers in terms of the content made available to each of them. For customers, this introduces an element of differentiation between one GDS and another, which may be of great relevance to agents. The lowest fares of an airline may be available on one GDS and not on another, which would be very important in terms of sales for a given agent. In such cases, agents may decide to switch to another GDS providing all fares (including the lowest fares) or even opt

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<sup>(18)</sup> As long as agents use single-homing, GDS providers have exclusive access to agents belonging to their respective agent networks. Each GDS provider therefore has a certain degree of monopoly power in relation to airlines that need to reach those agents exclusively connected to one GDS. This sort of 'monopoly power' where the GDS provider is a 'gatekeeper' for those agents, allows it to charge higher prices to airlines, thereby extracting from them something that could be compared to 'monopoly rents'. These are to a large extent used to cover the financial incentives granted to agents to secure their subscription.

<sup>(19)</sup> Agents are in general net cash receivers, as they receive more financial incentives from GDSs than they pay as fees to the GDSs. Their incentives have consistently increased over the last five years, even in the Member States where the merging companies have high market shares (above 40%).

for multi-homing. This scenario — albeit simplified — illustrates how a GDS that is not able to secure ‘premium’ travel content may lose market share on the agent side. Apart from this dimension of differentiation generated by airlines (possibly through bargaining with GDS providers, as discussed below), and apart from the size of the agent network (which depends on how successful a GDS provider is in securing agent subscriptions), other elements of differentiation among different GDS can be introduced by the providers themselves, namely in terms of optional services (such as additional functionalities for users on both sides of the platform) and the quality of technical support. Still, the crucial issue remains the travel-related content available, such as access to low-fare inventory, geographical coverage and types of ‘non-airline’ content included.

On the second point, as already mentioned above, alternative technological platforms (and more generally, alternative distribution channels) are already available or at least their implementation is technically and economically feasible within a relatively short term. Those platforms may allow airlines to bypass the GDS and directly access agents (‘direct link’) or even end-consumers (‘supplier.coms’) <sup>(20)</sup>. This has the potential to weaken considerably the position of GDS providers as gatekeepers controlling access to their network of subscribing agents (which could then be reached directly by airlines) and the related customer base (which could make use of supplier.coms set up by airlines).

A major implication of this evolution in the GDS market is the change in the relative bargaining power of airlines, GDS providers and agents. In recent years, GDS providers have been faced with bargaining not only on the agent side (where they have to grant incentives in order to secure subscriptions and the agents’ customer base) but also, and increasingly, on the airline side. This results from the substantial efforts made

by airlines to reduce costs <sup>(21)</sup> also by exploiting alternative distribution channels to GDSs, notably those available via the internet <sup>(22)</sup>.

Representative of this evolution are two new types of agreements characterising the interaction between airlines, GDS providers and agents: ‘full content’ agreements and ‘opt-in’ agreements.

### *Full content (and related discounts)*

In order to make supplier.coms a viable alternative distribution channel for travel content, airlines may need to withhold some premium content, such as their lowest fares, from GDS providers and make it available only via the web. A first point is therefore that once supplier.coms exist and are viable, an element of differentiation may exist in terms of content made available selectively on one platform (supplier.com) and not on another (GDS). As a matter of fact, the number of bookings via supplier.coms has increased substantially in recent years.

This market evolution, as well as the possibility (or even the simple threat) that airlines could selectively withhold content (i.e. from one GDS provider but not from another <sup>(23)</sup>), with a possible impact on each GDS’s market shares, has obliged GDS providers to revise their strategy towards airlines. GDS providers have started to grant discounts in exchange for airlines’ commitment to

<sup>(20)</sup> Supplier.coms are in part accessible to agents as well. Moreover, certain airlines operate specific Business to Trade (‘B2T’) websites. However, the use of supplier.com websites by agents is limited by the time and costs necessary for multi-channel search, as compared to one-stop-shop searches via the GDS platform. This tends to limit the use of supplier.coms (or B2T) by agents to a simple complement to GDS (or a temporary solution to system failure for single-homing agents). Supplier.com websites mainly target end-consumers.

<sup>(21)</sup> This is in particular the case for full-service airline carriers facing competition from low-cost carriers.

<sup>(22)</sup> This is increasingly also the case for travel content providers other than airlines, such as hotel chains and car rental services. As said at the beginning, airlines are used here as a cover-all term for ease of exposition, but a similar reasoning also applies to other travel content providers such as rental car companies and hotel chains. However, their dependency on GDSs for the distribution of their travel content is much lower than in the case of airlines. This implies that any potential negative effect deriving from such transactions can only affect a limited part of their business. Most of the rental car companies and hotel chains have supplier.coms even more developed than those of airlines. Some of them have also established direct links with major agents (as well as with airlines), which allows them to bypass GDSs.

<sup>(23)</sup> GDS providers must be able to provide full content (in particular the lowest fares) to agents. If a GDS provider is unable to offer full content to agents, these may decide to switch to a competing GDS providing that content. The risk of losing customers intrinsically weakens the GDS provider’s bargaining position with respect to airlines.

provide ‘full content’, i.e. their whole inventory, or at least the same content made available on the airline’s website <sup>(24)</sup>.

In other words, content has become the crucial element in determining the relative bargaining position between airlines and GDS providers. The development by airlines of their supplier.com websites with the ensuing possibility to withhold (or threaten to withhold) content from the GDS providers has improved the bargaining position of airlines vis-à-vis GDS providers and destabilised the pattern of rent extraction derived from the standard single-homing / multi-homing framework previously described, where GDS providers were able to extract rents on the airline side to be partially used to finance the acquisition of a customer base on the agent side.

### *Opt in / opt out (and related surcharges)*

The fact that an airline grants full access to its inventory and fares via a given GDS does not necessarily mean that the inventory and fares are actually fully accessible to agents on the other side of the platform. Access to the full content via the GDS may be granted to agents as an additional option. In fact, some airlines have negotiated rebate schemes (‘opt in’ agreements) with their GDS providers, on top of existing full content agreements. Under these schemes, rebates ( $R$ ) are granted by the GDS provider to the airline in addition to the discounts provided under the full content agreement, but are triggered only when a pre-defined threshold of ‘opting-in’ agents is attained. Agents opting in will have to pay a variable opt-in fee ( $F$ ) to the GDS provider, allowing it to partially recoup the cost of the rebates granted to airlines. Agents can subscribe to the GDS without opting in, in which case they can still make bookings via the GDS but have to pay a surcharge ( $S$ ) — which the GDS will transfer to the airline — which would not be incurred by making the same booking directly with the airline on its supplier.com or any other airline-specific B2T platform.

Therefore, the incentive to opt in stems primarily from the system of surcharges imposed by the airline on bookings made via the GDS (as opposed to direct, non-GDS alternative platforms) when an agent has not opted in. The choice by agents depends on the relative magnitude of the variable ‘opt-in’ fee as compared to the surcharge paid for the GDS booking if opting out or to other financial and non-financial <sup>(25)</sup> costs ( $C$ ) related to booking directly.

In a stylised example, agents will tend to opt in when  $F < S$ , in which case the GDS provider obtains  $F$  and, assuming that the threshold is attained, pays  $R$  to the airline. If for any reason the agent decides to opt out, it will either book via the GDS, paying the airline a price including  $S$ , or book directly with the airline (e.g. via the supplier.com or another airline-specific B2T platform) possibly incurring the cost  $C$ .

Whereas the application of ‘opt-in’ agreements in the EEA appears to be still rather limited (confined mainly, if not exclusively, to the UK and Irish markets at the time of the investigation), their mere possibility represents a further element destabilising the bargaining power previously enjoyed by GDS providers vis-à-vis airlines. In fact, as with withholding (or threatening to withhold) travel content by applying (or threatening to apply) surcharges to agents, airlines may influence the use of a specific GDS and make it lose sales in favour of either supplier.coms (where no surcharges are imposed) or another GDS (which may have lower surcharges).

### *Interaction of content withholding and surcharges: summing up*

Both withholding content and imposing surcharges (once full GDS access to content has been granted) have a steering function in stimulating direct bookings to the detriment of the GDS channel, thereby weakening the position of GDS providers. Although a given GDS provider may preserve intact its share of the rent represented by the traffic generated by the network of agents single-homing with it, while it remains the gatekeeper

<sup>(24)</sup> As regards airlines in the strict sense, the so-called ‘Participating Carrier Agreements’ (PCAs) originally concluded between GDS providers and airlines have been complemented by a series of Full Content Agreements (FCAs). Galileo and Worldspan as well as other GDS providers have entered into FCAs with a number of airlines. These agreements provide for significant discounts on GDS booking fees in return for a commitment from the airlines to distribute all public fares and associated inventories through that specific GDS, in particular fares that until then were available only through the airlines’ supplier.com websites.

<sup>(25)</sup> An example of non-financial costs is the cost of multi-channel searches (and related comparisons) on different supplier.com / B2T platforms, both in terms of time and, where applicable, for setting up an appropriate in-house interface. This may be very low if the agent already has an appropriate interface for multi-channel searches or if the booking does not require any searching across different channels because of precise instructions given by the customer.

to that network, the behaviour of the airlines can reduce the size of that rent, or at least reduce its growth, to the extent that they are able to deviate part of the traffic (including that of potential new customers) out of the reach of the GDS <sup>(26)</sup>.

The fact that airlines are able to divert (existing and new) booking traffic out of the reach of GDS providers has an impact on the bargaining between airlines and GDS providers, but not on the homing strategy, which will remain one of multi-homing (although, possibly, without full content being provided to the GDS). This has the potential to induce GDS providers to grant direct cost reductions (i.e. lower booking fees) to airlines, thereby modifying the rent-extraction pattern (and related size / direction of the financial flows) as compared to the extremely skewed (and detrimental to airlines) pattern following from the standard multi-homing / single-homing model which previously characterised the GDS market.

The evolution of the market, independently from the merger under consideration, has thus given rise to additional financial flows depending in practice on the relative magnitude of surcharges (applied by airlines to GDS bookings made by agents that have not opted in), opt-in fees (charged by the GDS provider to agents opting in), rebates (granted by GDS providers to airlines and partially financed by the opt-in fees) and other discounts (also granted by GDS providers to airlines for full content agreements). In addition, direct sales via supplier.coms (and other airline-specific platforms) have increased and airlines keep on developing bargaining tools that are very likely to maintain the pressure on GDS providers even after the merger <sup>(27)</sup>.

<sup>(26)</sup> Where low fares are set in order to reach occasional low-budget travellers, which represent an important factor in the overall growth of the industry, the fact that those low fares are made available only on the supplier.com website of an airline precludes GDS providers from appropriating part of the related revenues.

<sup>(27)</sup> Airlines could possibly develop 'joint' supplier.coms (for example, as part of airline alliances) that could compete with GDSs. Such solutions would have the advantage, as compared to mono-brand supplier.coms, of decreasing the costs of multi-channel searches and become more competitive with the centralised solutions represented by GDS platforms. Another possibility, mainly used in North America for the time being, would be to unbundle the fares (i.e. separating the fare for the travel itself from charges for ancillary elements such as, for example, luggage, catering, web ticketing/check-in, etc). Such fare unbundling makes comparison via GDSs more difficult and therefore decreases the value for agents of the GDS as a search and booking tool.

### ... and travel agents

The evolution described above is strictly independent of the merger. GDS providers now do not appear to be in a position to simply recoup the reduction in rents extracted on the airline side by correspondingly limiting rent-sharing with agents. However, consolidation (as in the merger under review) might increase their power vis-à-vis agents. On the other hand, recent consolidation on the agent side has in the meanwhile reinforced the bargaining position of agents as well <sup>(28)</sup>.

Even the issue of surcharges, which could appear *prima facie* as a price increase directly imposed by airlines on agents, is not an element in possible rent extraction by GDS providers on the agent side. It appears that average net prices have not noticeably increased for agents, indicating that agents have actually managed to pass on the increased costs generated by the airlines' surcharge strategy to GDS providers. In fact, the market evolution just described has not weakened the need for GDS providers to compete for agents, and the related ability of agents to play one GDS against the other <sup>(29)</sup> and obtain more financial incentives.

### Conclusion (on the merger)

The reduction in the number of GDS providers was found not to lead to price increases on the airline side of the market even in the presence of single-homing (and a relatively high market share of the merged company) on the agent side.

In fact, recent market developments, in particular the number of countervailing bargaining tools at the disposal of airlines, allow airlines to force GDS providers to lower their prices in exchange for (i) full content and/or (ii) limiting the (actual or potential) diversion of bookings towards other platforms or competing GDS providers (via surcharges and, again, the retention of premium content). Nevertheless, the improved bargaining position of airlines is not conducive to a revision of their homing policy, so that the existing

<sup>(28)</sup> Some recent examples are Carlson Wagonlit Travel's acquisitions of Navigant and of ProTravel, American Express/Rosenbluth, and BCD's acquisitions of TQ3 and of the Travel Company, Thomas Cook/My Travel and TUI/First Choice. One could even see this consolidation on the agent side (and the related considerable increases observed in the financial incentives given by GDS providers to agents) as one reason for consolidation at the level of GDS providers.

<sup>(29)</sup> In view of the fact that switching costs are quite limited and in any case not an insurmountable obstacle to switching GDS providers.

configuration involving multi-homing (airline side) vs single-homing (agent side) will continue to prevail.

On the agent side, a sufficient number of GDS platforms will remain available to agents, with relatively limited costs for switching GDS provider. In addition, as just stated, single-homing is sufficient for most agents to guarantee an efficient one-stop-shop access to most travel-related content (occasionally complemented by recourse to alternative channels). The fact that GDS providers need to create and maintain a sufficiently broad network of agents in order to generate demand on the airline side leaves agents in a favourable bargaining position vis-à-vis GDS providers even after the elimination of one of these providers.

### Conclusion (on the theory)

Under some conditions (mainly the existence of significant indirect effects) the two-sided nature of a market is an important element in the assessment of a merger. Failure to take it into account may lead to enforcement errors, both overstating and understating possible competition concerns.

In situations where a ‘competitive bottleneck’ is identified, it has to be considered whether platform users have any countervailing bargaining power. If that is the case, the theoretical result of the ‘competitive bottleneck’ theory, stating that the platform provider can extract all rents to the detriment of multi-homing users, has to be adjusted.

Travelport’s acquisition of Worldspan provides an interesting example in this regard, as it features (i) preliminary indications of possible unilateral effects on the basis of high market shares in a number of markets, (ii) a pattern of subscription to the platform broadly corresponding to the competitive bottleneck scenario and (iii) a dynamic aspect consisting of users on the multi-homing side developing bargaining tools to counteract the rent extraction predicted by theory in that scenario.

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