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The competition analysis of vertical restraints in multi-sided markets – Note by Cafarra and Kühn

Hearing on Re-thinking the use of traditional antitrust enforcement tools in multi-sided markets

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The competition analysis of vertical restraints in multi-sided markets

Note by Cristina Caffarra and Kai-Uwe Kühn *

1. Introduction

1. The competition assessment of vertical restraints in multi-sided markets is an area of remaining controversy and confusion across Europe. Failure to properly internalise the economic insights of the past 30 years on the role of contractual restrictions between vertically-related firms in traditional "one-sided" markets has carried over – amplified – to multi-sided environments. The European Commission's Vertical Guidelines of 2010 have been a missed opportunity to set out clear principles for enforcement, and presumptions in favour of vertical restraints in traditional environments. These shortcomings are coming back to haunt us in multi-sided platforms, online and e-commerce – right at a time when firms are facing uncertainty and are rethinking their distribution models, experimenting with multiple channels.[1]

2. The current enforcement record is a heterogeneous patchwork of activity across Member States. Various types of vertical restraints have been probed between online platforms (providing various functionalities typically "for free" to consumers), and brands/sellers using the platform as a distribution channel – including "best price clauses"/"MFNs", and platform exclusions of various kinds. The approach does not reflect a careful, systematic application of economic principles but more often the persistence of idiosyncratic views on the anticompetitive effects of vertical contracting (e.g. that manufacturers want to shut down cheaper distribution channels "to keep prices high", or that "best price clauses" are inherently anticompetitive). On the one hand, agencies tend to regard platforms trying to bring about uniform prices with other channels through MFNs as anticompetitive; while at the same time, price discrimination resulting from platform exclusion decisions is also regarded as anticompetitive. There is also limited effort to understand the efficiency properties of such contracts and the motivation of firms using them to solve certain problems (e.g. on a view that "free riding" does not exist).

3. The implication is that firms are scared to articulate their true motives for fear of being misunderstood, and seeking alternative solutions to deal with their issues without being caught in investigations. Some are structuring their online distribution much more "in-house" as an integrated function; while platforms are redesigning certain functionalities to "work around" perceived antitrust risks. This involves foregoing the experimentation around new independent distribution formats which is needed to trial and test new ideas. It also implies that investment are incurred in redesign and "workarounds"

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1 See also Kühn, K.U., "Economic Deficits in the Competition Policy Analysis of e-commerce: is the Current Enforcement Practice Justified from An Economic Perspective?", in Competition Law and Policy Debate, Volume 2, Issue 2, June 2016.

that may be redundant and displace more productive ones. As a result, online distribution of goods and services in Europe is being held back and in danger of ending up a lot less varied and efficient than it should be.

4. After a brief introduction to multi-sidedness and the questions we set out to consider (Section 2), in Section 3 we explain how the key insight that vertical restraints are motivated by contractual incompleteness carries over directly to multi-sided markets. Similarly in Section 4 we argue that while multi-sidedness may appear to complicate greatly the analysis of competitive effects, the assessment can be simplified to an approach close to the approach to vertical restraints in more standard environments. Where a new approach is truly needed is in developing and taking seriously the evidence for the efficiency properties of these restraints, which tend to be systematically overlooked or dismissed (Section 5). Compounding the current problem is the structure of the law, which involves a sequential assessment of anticompetitive effects and efficiencies and is particularly ill-suited to vertical restraints; and possibly the reality that Industrial Organisation research continues to put too much emphasis on the details of specific models and is not encouraging enforcers to look beyond analyses of short-term price effects, at dynamic issues of investment and experimentation (Section 6). Building on these considerations, in Section 7 we make a number of suggestions for a roadmap to the analysis of these practices. Section 8 concludes.

2. Multisidedness and vertical contracting

5. Markets are described as "multi-sided" when they are organised around an intermediary (a "platform") with interdependencies in demand between agents performing and obtaining services on various sides of the platform. While there are multiple classic examples (TV and newspapers, payment cards), for purposes of this paper we focus on digital platforms that connect different constituencies of users: consumers searching for information and a product/service to "match" their requirements; sellers looking to realise a sale; advertisers serving up adverts to match and anticipate users' interests; and the platform itself, looking to monetise its services (information, matching) through advertising and various other sales commissions.

6. Multi-sided markets involve a number of characteristics: (a) there are typically network externalities across the sides of the platform; (2) the platform has incentives to invest to develop a user base as wide as possible on one side, so that it can monetise its investment on the other side (e.g. through advertising revenues on the other side, and as well as through commission on sales/bookings); (3) this typically involves offering an attractive service "for free" (or at a low price) to build up customer base on one side quickly; and (4) investments in functionalities which are provided to users for "free" are susceptible to free riding if they are available to all, but there is a separate channel through which purchases/bookings can be made.

7. The question we discuss in this paper is whether we need to make changes to the competition analysis of vertical contracts in these settings. For instance, contracts that introduce restrictions on the prices that can be charged by sellers across channels (e.g. "best price clauses"); on the distribution channels that may be used (e.g. brands allowing distributors to use certain online marketplaces but not others); and on branding and features that may be displayed (e.g. prohibition to use a logo on a platform). Do we need new insights and new tools to deal appropriately with these cases?

3. Contract incompleteness motivates vertical restraints also in multi-sided markets

8. A broad insight provided by economic analysis over the past 30-40 years on the motivation for vertical restraints is that these give rise to anticompetitive effects only in limited, very specific circumstances.[2] Vertical coordination does not typically lower the competitive pressure faced by a firm, but allows it to organise sales in a more effective way. If a firm "restricts" its own downstream distribution, it does not affect directly its competitors but restricts access to market of its own goods. As brand owners have an interest in the distribution of their products being as competitive as possible, the question is *why would they limit the channels of distribution they use*, or leave "money on the table" in the form of a greater margin to the retailer? The most natural explanation in most cases is that they can only be interested in doing so if this creates incentives for beneficial activities that cannot be otherwise directly mandated and controlled. While there is a literature on the anticompetitive effects of certain vertical restraints (e.g. the classic case of RPM being used in order to solve a commitment problem between manufacturer and retailer which arises with asymmetric information), theory does not support a general presumptions against such restraints from a competition point of view. Much of the empirical evidence from cross-sectional studies also supports the notion that vertical restraints are benign and pro-competitive[3] (though again with exceptions[4]).

3.1. Contractual incompleteness from the endogenous price structure in multisided platforms

9. The insight from economic analysis on the motivation for vertical restraints in traditional ("offline") distribution formats is that these typically reflect the presence of some externality, and an *incomplete contracting problem* which means the externality cannot be resolved directly by writing a contract. For instance, a manufacturer cannot sign a complete contract with a retailer/distributor mandating a given optimal level of "sales effort/services". This is because the manufacturer has asymmetric information on the amount and effectiveness of the retailer's "sales effort", and therefore cannot specify the optimal level of effort in a contract in a way that can be enforced. As a result, there is no explicit compensation for "services" and the incentive needs to take the form of a commission on sales achieved.

10. This same motivation holds *a fortiori* in an online environment: indeed it is arguably even more difficult to write complete contracts for online distribution as it is difficult to anticipate all of the ways in which an online retailer may do things the brand does not like, and police this. But in a multi-sided setting there is an *additional motivation for contractual incompleteness, stemming from the pricing structure*. Because a platform tends to find it optimal to charge less to the more elastic side, and indeed charges nothing in most cases, the "service level" offered by the platform cannot be priced and contracted for separately to users. A sales/booking platform that does not

2 For a broad overview see among others the classic Rey, P. and T. Vergé, 2008, "Economics of Vertical Restraints", in P. Buccirossi, Ed, Handbook of Antitrust Economics, MIT Press, pp. 354 – 390.

3 See, Lafontaine, F. and M. Slade, 2008, "Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy", in P. Buccirossi, Ed, Handbook of Antitrust Economics, MIT Press, pp. 391 – 414.

4 MacKay, A., and Smith, D.A., 2016 "The Empirical Effects of Minimum Resale Price Maintenance", Kilts Center for Marketing at Chicago Booth – Nielsen Dataset Paper Series 2-006, at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2513533.

charge users on the consumer side may offer a rich functionality, including well-designed user interfaces and real-time information on product availability, as well as proprietary algorithms to ensure the best possible match between consumers' heterogeneous preferences and the products available – all services that benefit sellers too. Could the platform not charge the seller directly for the search services it benefits from? The problem is there is no objective measure of "quality of search" that can be explicitly contracted for: the only measurement of the effectiveness of a platform for the seller is the extent to which it originates sales. We thus have the same problem of contract incompleteness that arises with asymmetric information in traditional environments; and in both situations an efficient way to reward effort is to reward the outcome – i.e. link remuneration of the platform to a metric that proxies for success: in practice, a commission on achieved sales.

11. The "catch" also in this case is that if people search on the platform but "convert" on a channel with lower commission, there is no remuneration for the "sales effort" and no reward for the platform's investment in quality. If consumers use the search facility but do not "convert" the search into a booking, other channels will be free riding on the platform. Incompleteness of contracting *combined* with the structure of prices which is optimal for the platform generate clear efficiency reasons for vertical restraints in these environments.

3.2. Externalities, incomplete contracts and platform exclusion decisions

12. Restrictions on the use of platforms and marketplaces imposed by a manufacturer on online distributors and retailers can also reflect specific externalities which cannot be internalised because it is not possible to write complete contracts to that effect. "Selective distribution" on the part of brands (i.e. the decision to selectively licence certain channels for distribution but not others) has been traditionally associated with "luxury" goods and brand owners wanting to "deselect" outlets that do not meet a certain standard of presentation. In an online multi-sided environment there are *additional reasons* for selective distribution. For instance, a platform/site may have different interests for how consumers are *searching and comparing*, relative to the brand. Think of price comparison websites which tend to steer comparisons towards prices alone, as they rank products only in terms of price. Conversely, the brand may want the consumer to focus *both* on price and quality, and comparisons to be made more in terms of price/quality trade-off (because it may have product lines and may want consumers to consider products that may cost more but are better). If these price/quality comparisons are suppressed and the only comparisons are price-based, with cheapest products ranking first on the list, there may be a vertical externality in terms of diverging incentives of platforms and sellers: the mix of what is being shown and compared on the site based on price alone may be distorted relative to what the brand wants to achieve.

13. These concerns may then lead brand owners to want to ensure their distributors do not contract with certain marketplaces ("platform exclusion decisions") because they do not provide the type of service they want. The brand would like to be present on the marketplace and provide incentives for it to develop in a certain direction (for instance, include quality considerations when ranking the various offerings); but if that is not possible because the platform/marketplace has a uniform policy towards resellers, then the brand *may prefer not to be on the marketplace at all*. For instance, a brand which also offers "upper end" products will want consumer to have visibility of these offerings, because it might not look so competitive at lower price points but would sell if

comparisons were properly done to take account of quality. Yet if the comparisons do not allow for this, it may prefer not to be on the marketplace at all. Other examples are *order fulfilment* standards, and *security of payment* standards applied by marketplaces, which may not satisfy the brand's requirements. The brand may well be legitimately concerned that the platform allows resellers which are frequently *out of stock* (e.g. advertise availability of a product to make a sale but only later inform the customer they are out of stock, and meantime benefit from the cash flow); or who do not meet certain standards of *shipment time*, or do not refund customers promptly. It is reputationally damaging for the brand to be associated with a marketplace where a number of resellers may not meet its standards, even if it benefits from free search and comparison services.

14. These are considerations specific to an online multisided environment that can create new conflicts between platforms, consumers and brand owners. If control over standards remains with the marketplace, and the brand owner as "customer" of the platform has no control over standards but must take them as given, it may legitimately decide to retain some control over its distribution by being selective about the sites its resellers are allowed to use. This may well take the form of an outright restriction on resellers' use of certain marketplaces, or restrictions on the type of functionalities that resellers may allowed to use on marketplaces. For instance, if a platform commits to a particular way of doing comparisons between products, order fulfilment, payment etc., by setting standardised terms that cannot be individually negotiated, the brand owner may not want to be seen to be trading in that particular way and engage in the selective use of marketplaces, and "platform exclusion" decisions.

15. Yet we have seen that agencies tend to regard these decisions as a form of anticompetitive "discrimination" by brand owners across outlets, intended to prevent price competition and "keep prices high" for their products – and as such, they tend to be seen as "per se" anticompetitive and "by object" restrictions. An example is the ASICS case in Germany, where it was deemed anticompetitive for ASICS to restrict resellers' use of price comparison websites, and the use of logo/brand on third party platforms. It is always hard to understand in coherent economic terms why a manufacturer would want to restrict competition *in the distribution* of its product – as in traditional environments, the brand benefits from the distribution of its product being as competitive as possible. The notion that the motive must be anticompetitive does not seem justified in light of what we know, and of the efficiency reasons for restricting a channel of distribution.

3.3. Uncertainty on the online format and residual control rights

16. The incentives for introducing a variety of restrictions in an online, multisided environment are amplified by the presence of *uncertainties on the online business model*,[5] in which case it is natural for the brand to want to preserve more residual control rights over decisions about how to retail the product – as well as the authority to deal ex post with any issues that might arise. The ability to make platform selection decisions provides greater residual control rights as brands try to anticipate the best way of dealing with multiple channels. This is a typical efficiency-enhancing response to the presence of uncertainty, when it is not easy to settle on the "right" approach, and unanticipated contingencies will arise which are hard to write into a contract. The alternative is for the

5 For an analysis of the importance of choosing the right "business model, see Rochet, J.C. and J. Tirole, 2003, "Platform Competition in Two-Sided Markets", Journal of the European Economic Association, 9:4, pp. 990 – 1029.

brand to take distribution "in house" and vertically integrate, and that is indeed a step we are increasingly seeing brands to be taking. But only a few brands can generate the economies required to be able to do this, and if they cannot, vertical integration of distribution is not an efficient model (relative to the economies of scale and scope of being sold on a platform with other products).

17. The key point for our purposes is that contractual restrictions between brands, resellers and platforms naturally arise in multisided environments as firms seek to overcome incomplete contracting problems in the presence of externalities and free riding concerns. The *nature of the externalities* and the *source of the contractual incompleteness* may well be specific to the multisided environment, and there may well be multiple externalities between various sides of the platform. But the issue remains that aligning incentives between the different sides directly through a contract may not be possible, and this requires either incentives to be provided in a different way, or restrictions to be imposed on prices or product features or availability to deal with externalities.

4. The competition assessment of vertical restraints in a multisided environment appears more complex, but it is not fundamentally different

18. The assessment of the competition implications of vertical restraints in multisided environments seems inherently more complex: multiple sides, network externalities and vertical relationships between platform and users potentially imply multiple foreclosure effects and performing trade-offs seems harder. But again, it is not a fundamentally new analysis which requires new approaches and new tools relative to more traditional environments, and it can be considerably simplified – if we focus at least in the first instance on direct customers on the "pay-side" of the platform, think of the investment in developing the platform and getting a user base as an investment in "quality" of service provided on the pay side, and assess the incentives of the platform and its pay customers in terms of competition between standard vertically integrated and disintegrated players. Then we can work with the tools we have.

19. Consider a platform which allows users to search and purchase, while sellers simultaneously make available their product also on other platforms, their own online channel as well as brick and mortar outlets (to fix ideas, this is the classic set-up of hotel booking platforms which have been the focus of extensive antitrust investigation over the past few years across Europe, but they apply more broadly). There are separate effects arising from the interaction of platforms with sellers using multiple distribution channels for their product:

- The seller may pay a commission to the platform on which a sale is achieved, and this commission is equivalent in practice to an *input price* that is charged by the platform to the seller. The higher the commission, the higher the final price of the product.
- A platform invests in developing efficient algorithms to assist consumer search, in software to exchange information with sellers, in sales management assistance and in acquiring and displaying information which might be useful to buyers. These investments increase the likelihood of successful matching of sellers with buyers, but are also subject to a free riding problem as consumers might find the right match on a full-service site but complete the purchase on a no-frills site where the price is lower. There is thus an incentive for the platform to try to

reduce this free-riding inefficiency by adopting contractual clauses that restrict sellers from charging lower rates on other platforms ("broad MFNs").[6]

- Platforms also face a vertical inefficiency in the form of free riding by sellers themselves, making the product available at lower prices through their own direct sales channels (online and offline). The contractual solution that platforms may then seek to adopt is a restriction on sellers charging a lower price through these channels than that quoted on the platform ("narrow MFNs").
- The contractual "solutions" for the various vertical inefficiencies can also affect competition between platforms as MFN clauses could potentially dull the platforms' incentives to compete by offering lower commissions.

20. Netting out these effects appears analytically complicated – and multiple modelling efforts were put forward e.g. in the hotel booking case (with results depending finely on assumptions about effects such as "cannibalisation" – the extent to which if a hotel charged a lower price on a platform charging lower commission it would eat into its own sales where it pays no commission, the ability of hotels to "delist" from sites that charge higher commission, etc.). But the fundamental reason for the complexity is that there are multiple parties interacting "upstream" and "downstream", not that there is something inherently different arising from multisidedness. Indeed it is not clear that multisidedness makes any essential difference to the analysis. What multisidedness implies (again) is that there are search services offered for free on one side of the platform, on which others can free ride; and these free-riding opportunities mean the platform cannot get a return from direct search customers and may well seek to introduce restrictions on prices for the same product sold on other channels. However, we would have essentially the same issues also with an agency model with in which an "upstream firm" was selling a product on a platform and setting the final price, while at the same time selling the product as an input to the platform at a price either negotiated or set by the platform. In practice there is a set of "vertically dis-integrated" offers (the platform which provides the "downstream" booking service only) competing with "vertically integrated" offers (the seller which provides the "upstream" product and competes for sales with the dis-integrated seller through multiple channels), and this creates additional trade-offs, but the analysis of competitive effects does not require a change in our analytical tools: it still requires us to gauge the extent to which simultaneously selling a product through multiple independent platforms, and through the seller's own integrated channels, may give rise to foreclosure incentives upstream and downstream between the platform and its pay customers.

5. Systematic dismissal of efficiencies is the major outstanding issue

21. The area where most progress needs to be made – and where tools need to be sharpened – is the testing of the efficiency motivations for the contractual restrictions that we see. Competition authorities and the courts have rarely if ever accepted contractual incompleteness as a motivation for vertical restraints in more traditional environment, and have not engaged with the task of properly understanding organisational structures and

6 See inter alia Johnson, Justin P., The Agency Model and MFN Clauses (January 25, 2017). Available at SSRN: https://ssrn.com/abstract=2217849 or http://dx.doi.org/10.2139/ssrn.2217849 and Boik, A.K. and K.S. Corts, 2013, "The Effects of Platform MFNs on Competition and Entry, Research Paper, available at https://www.researchgate.net/profile/Andre_Boik/publication/305220937_The_Effects_of_Platform_MFNs_on_Competition_and_Entry/links/5785173408ae3949cf5384ee.pdf

business models: theories that explain organisational structures and their efficiency properties are typically dismissed, and this problem has carried over entirely to the multisided environment.

22. Thus the case against hotel booking platforms has been strongly motivated by a prior that MFNs/Best Price Clauses imposed by platforms on their suppliers (hotels) to ensure they were not selling rooms at a discount on other platforms and their own sites were no more than a form of RPM, intended to increase prices and deter the entry of cheaper platforms. A number of analyses have been more subtle,[7] but the prevailing view was that booking platforms somehow "squeeze themselves" between the customer and the hotel, and there is nothing wrong with customers searching on booking sites and then booking with the hotels separately ("information on the internet is by its nature free"). The argument that these restraints are efficient because by increasing the "conversion" of search on the platform into sales they increase the incentives to invest in search (only search that leads to booking is rewarded) has been fundamentally set aside. The efficiency motivation have been systematically "disbelieved" by agencies ("I understand the argument for efficiencies, I just don't believe it"). In the more elaborate version of the argument, the answer has been that there can be no concern about the effect of free riding on incentives to invest because the investment of the platform are not "specific" to a particular hotel – thus if there is free riding on the part of a particular hotel, this does not undermine the incentive of the platform to invest overall.

23. But it is simply incorrect to dismiss efficiency motivations on these grounds: a website which involved a material investment to design and launch is not protected from free riding concerns just because the investment in the technology was not "seller specific". Of course it is the case that for free riding to undermine the incentive to invest it must be the case that the investment is "relationship specific"; but to conflate this with "seller specific" is a mischaracterisation of the economic insight. What platforms are doing here is creating a public good for everyone who searches the website, and the investment is still *specific* in that sense. When pursuing arguments sourced from the economic literature we need to be careful to capture their true meaning and substance. What happens on the platform *is* a specific investment, because it is all about creating a public good for the other side of the market.

24. Similarly, for selective distribution the key is that given the uncertainties of online selling, brand owners want more residual control rights over decisions about how to retail their products, and want authority ex post to deal with issues that might arise in an uncertain environment. It is simply not possible for a competition agency to assess whether the parties can write a complete a contract or not. A typical reaction is "we don't accept your efficiency arguments, because the incentive problem can be solved through a two part tariff". But this is incorrect: two-part tariffs can only resolve some types of vertical inefficiencies, and by no means all.[8]

25. In practice very little progress has been made in developing an understanding of how to assess the credibility and significance of efficiency motivations for contractual restrictions of the type considered here. In the hotel booking case the economists advising the platforms sought to run various experiments to substantiate the claim that in the absence of the clauses, conversion through the booking platform would decline – which

7 See inter alia Fletcher, A., and Hviid, M., Retail Price MFNs: Are they RPM 'at its Worst'?, ESRC Centre for Competition Policy, University of East Anglia, April 2014.

8 See for example Rey-Vergé (2008). Ibid.

was at least the first "building block" in an analysis of the potential for free riding concerns undermining the incentive to invest in the platform in the first place. One "natural experiment" was made possible by the fact that in Germany the HRS platform had been banned from using MFNs altogether, and this provided an opportunity for studying whether this had a material effect in terms of inducing lower conversion rates on the HRS platform (i.e. fewer bookings relative to searches) once the ban came into force. Evidence was also collected from platform search and booking data in other countries to assess whether conversion rates varied with the degree of "price dispersion" – i.e. the extent to which consumers were more likely to make a booking ("convert" their search) on the platform when prices for hotel rooms were more uniform, and less likely to do so when they were faced with greater dispersion of room rates. The experiment was not "clean" in the sense that MFNs were in place, and therefore the degree of price dispersion which was observed was only reflecting "lack of adherence" to MFNs. However an interesting claim was the finding that where price dispersion was higher (i.e. MFN were not being adhered to), there was a *material decline in the probability that customers would book through the platform, even though they continued to use the search functionality.* This type of evidence gained little traction and was given little weight in the case.

6. Focus on short term price effects vs dynamic effects has long term costs

26. The failure to provide a coherent assessment of the competitive effects of these restrictions in practice has two further causes.

27. One is the well-known problem of the unhelpful structure of the law, which has separate steps for (a) finding a restriction of competition under 101.1 and *then* (b) considering whether there are offsetting efficiencies under 101.3. This dichotomy completely misses the economic point that a "restriction" is precisely the *means through which* the efficiency benefits are achieved. Separating the analysis into stages, placing the burden of proof on the parties to prove efficiencies and somehow show they offset the restriction, is not how we should proceed. Weighing anticompetitive effects against efficiency benefits is not how our economic theories work. Different is the case of mergers, where we evaluate the change in incentives while leaving the cost structure unchanged. But contractual vertical restraints *change the incentives to compete in price vs. the quality dimension,* and it is just not possible to separate a price increase motive from an efficiency motive. The burden of proof on efficiencies is simply impossible to meet.

28. And indeed, because it is seen as all too difficult to make this "balancing" assessment of restrictions and efficiencies, there has been a major lurch back towards the use of the hardcore "object box", so we do not have to worry about efficiencies at all.[9] In an online environment all forms of internet retailing are labelled "passive sales", so that every restriction one might want to adopt for efficiency reasons can be labelled a violation of object.

29. A second factor may be the bias of Industrial Organisation for looking too much at the details of specific models, and less at the bigger qualitative questions that matter for

9 See e.g. Pierre Fabre judgment ECJ 2011, which deems selective distribution an object restriction in the absence of "objective justification',

policy. Related to this, much of our competition policy advice is that we should get prices as close as possible to marginal cost at all times. We worry about restrictions increasing prices in the short term, though we know that higher prices can be good because they signal profitable market niches and high consumer demand, and direct investments and entry to where the highest marginal values are. We hamper this market process of eliciting information about demand with too much focus on static short-run price competition and too little on market dynamics, yet we have not been particularly helpful in suggesting evidentiary standards that are implementable in practice. We live by the legacy of "example economics": "there is a paper that shows that this practice *can* be problematic, we have an intuition things may go this way, so it is better to be prudent".

30. If we downplay efficiency arguments, and require companies to show "objective justification" for a business practice, we are adopting the opposite of a model in which innovation is driven by experimentation. In traditional industries in which business format did not change as much with the product, that might not have been that much of a problem, but with internet retailing and platform markets the freedom to experiment in sales strategy and business format is much more central. A direct implication is we are seeing business format change under significant strain in Europe, and a return to vertical integration into distribution: brands selling increasingly through flagship stores or by renting shop-in-shop modules in department stores. The purpose is to regain control over the vertical chain, in an environment in which there is perceived great uncertainty about what is allowed and what is not in terms of online distribution. Would we have seen so much vertical integration if firms could control their vertical sales channels via contracts? Probably not. Firms self-provide distribution services to regain control over their product, but this development is induced as a reaction to concerns about enforcement in this area, and may lead to foregoing or restricting forms of innovation that could take place online. We are in danger of undermining the rate of innovation in this area by yielding to firms that would like to see competition authorities shift rents to them,

7. Practical analytical map for antitrust Analysis

31. There is no unique test that can be implemented to assess the potential anticompetitive effects of vertical contractual restraints in multisided environments. And because the formal analysis can be complicated by effects going in different directions, it will be important to remain focused on "first-order" economic effects. The first priority in our view is to establish a framework for conducting the analysis that makes economic sense and reflects the insights we have from the economics of vertical restraints, multi-sidedness, online and network effects. We sketch below a possible roadmap.

7.1. Interpreting Multisided Markets in a Standard Vertical Framework

32. While multisidedness involves network effects across different sides of the market, this does not mean that the first-order effects of vertical restraints in such an environment cannot be analysed with a standard set of analytical tools. With multisidedness, the price on one side of the market typically drops to zero (or generally below marginal cost) in order to boost demand on the other side (where strictly positive margins are obtained). Harm to consumers from vertical restraints does not arise (directly) on the "zero-price" side, and only customers on the other side of the market could be directly harmed (though this does not exclude the possibility that customers on

the zero-price side could be *indirectly* harmed, if the platform is a pure intermediary and they purchase from platform customers on the other side).

33. But as a first-order approach, we believe the antitrust analysis should focus on customers who could be *directly* harmed. This allows a first-cut assessment of the impact of vertical restraints based on the standard economics of vertical contracting. In this approach, *the size of the customer pool on the "zero price" side of the market can be seen as a "quality parameter" in the demand function on the other side of the market.* Price setting, advertising, and investments in quality of platform experience for customers on the "zero-price" side of the market can then be seen simply *as aspects of "investments in quality" in standard vertical models* in which retailers set both prices and quality level. The fact that no margin is made on the zero-price side of the market can be interpreted as an investment in quality for the other side.

34. With this framework, the antitrust analysis of vertical contracts in multisided markets can be reduced to a model in which *the platform is in effect an upstream firm offering "contacts" at some prices and quality level, and potential vertical restraints*. These *can be accepted or rejected by the customer (the seller) who in turn sets a downstream price to its own customers (who could be the zero-price customers of the platform itself).* The impact of network effects on the zero-price side of the markets is taken into account in this approach.

35. This framework allows for an analysis of vertical restraints in multisided environments which does not fundamentally deviate from the approach we should follow to assess vertical restraints in more conventional environments. The advantage is to break down the complexity of multisided cases into pieces that are more manageable, and for which an analytical framework is available and should be familiar to antitrust authorities. The specificities of multisided markets are more likely to be taken into account if we follow a simplified approach, than if we suggest that everything has to be looked at the same time.

7.2. Getting market definition right: multi-homing and substitutability between levels of the service "stack"

36. With a standard framework for the analysis of vertical contracting, market definition should also in principle follow standard rules. However, certain features of digital markets tend to perpetuate mistakes that are routinely made in defining markets in vertical structures. This holds especially true for competition "in the vertical stack" and for multi-homing of customers across supply channels, where the failure to acknowledge competitive constraints properly leads to market boundaries being too narrow and market power being overstated for purposes of assessing vertical contracting practices.

37. First, almost all positive-price customers in multisided markets *multi-home*. They tend to be sellers to end-customers and will use all distribution channels that can add to their margins. The key is that with multihoming *all distribution channels tend to be substitutes to some extent*. That multiple distribution channels tend to be used in equilibrium is *not* a sign that they are complements or independent (which tends to be the standard view). Selling through more channels is pro-competitive in itself because it reduces the marginal contribution of each distribution channel to a firm. But since no supply channel can extract more than its *marginal* contribution to downstream profits, with more distribution channels the prices paid by firms for each particular channel will

be lower. This effect is more pronounced, the greater the degree of multi-homing and the greater the transparency of different offers to the end customers.

38. Second, and closely related, digitalisation has made it much easier to offer services through a variety of business formats, *both vertically integrated and dis-integrated*. The fundamental innovation of platform markets is precisely that complementary components to services can "plug-in" to already existing services, facilitating intermediation on any type of service. Online retailing integrates multiple functions such as product information, product search and matching/choice, financial transacting, and physical transportation. These activities involve different costs, and customers typically demand different mixtures of these activities which are offered in all kinds of combinations, with different degrees of vertical integration, and often with a mixture of digital and traditional markets. Thus a firm can make a sale as a result of consumers searching on a price comparison site, and then clicking through to the firm's website, or through search and purchasing on a booking/sale platform; these are substitutes in the economic sense, even though in the first case the seller pays the price comparison site for the click through, in the second it pays the platform for click through and fulfilment. Similarly, a brand can reach customers through a click advertisement on Google Products but also as a result of the customer searching for the product on Amazon and buying there. In the case of a direct purchase from the manufacturer the order may be fulfilled through an external contract with UPS, in the Amazon case through Amazon fulfilment, but in principle these are substitutable packages.

39. The analysis ought to start from a description of all channels through which an end-consumer can be reached, and the departing presumption should be these are potentially in the same market. However this is not what happens. The analysis often starts with a description of the "experience" of different distribution channels, to conclude on that qualitative basis that a number of them can be excluded from "the market". The simple argument that the "online experience" is different from the "offline experience" may well establish product differentiation, but it is not enough to exclude substitution a priori. We also often find that a distinction is drawn by pointing to the fact that different firms, e.g. price comparison sites and sites that allow search and booking, do not offer the same services. But this is incorrect, because what matters is the substitution between the "full stack" including the price comparison site together with whatever financial transaction and physical fulfilment solution they offer, and a site which provides an integrated facility for product search, selection and financial transaction.

40. Several practical steps should be followed for a proper analysis:

- First, all channels have to be identified through which end-consumers can be reached by the positive-price customer of the multisided platform. All such channels should be treated as potential substitutes unless there was strong countervailing evidence.
- Since end-customers drive the incentives for substitution across channels, we need information on end-consumer behaviour. We should study:
  - The degree of multi-homing among end-customers as a first-cut for substitutability between channels;
  - The degree of search among different distribution channels before a purchase. Do consumers search on Google + specific retailers, Google + brand manufacturer, Amazon, and physical shopping before they make a final purchase decision?

- Evidence on (possibly hypothetical) responses to prices or (better) to a channel no longer being available.

41. There are multiple survey methods for eliciting quantitative evidence for these drivers of substitution in an antitrust investigation, where less tight deadlines mean that surveys can be designed in principle much more carefully than in mergers. End consumers can be asked about their multi-homing behaviour, their search behaviour the last time they made a purchase, as well as hypothetical responses to a certain channel not being available, but clearer standards for such surveys must be developed in particular to capture the possibility of multi-homing.

7.3. Thinking of theories of harm as analytical tools

42. What is often under-appreciated is that a "theory of harm" in the economic sense is not just an assertion of expected effects (as the term is often used in law). Instead it is an analytical tool for case analysis. For instance, a statement that a particular practice "will deter entry" does not amount to a useful theory of harm that helps the analysis. Developing an economic theory of harm means specifying a theory that makes clear which assumptions are necessary to generate the anticompetitive effects. Whether these assumptions can be validated in the market under investigation will then determine whether the theory of harm must be dropped, or can be credibly pursued. Often theories of harm also involve predictions about market behaviour: for example, how pricing changes as a result of the predicted behaviour. If these predictions are not borne out by market behaviour, again the theory of harm must be rejected.

43. A "theory of harm" in the economic sense is therefore a tool to generate the right questions and identify the relevant evidence. We use it to spell out the precise assumptions under which there could be anticompetitive effects according to economic theory, and these assumptions then become what we need to test with data. For example, in the hotel platform booking cases the conjecture was that MFNs deterred the entry of cheaper, low-frill platforms that would charge lower commission to hotels. Yet what was observed in at least one case was that attempts entering new platforms (who complained against MFNs) set royalty rates exceeding those of existing hotel booking platforms. Higher royalty rates would have created incentives to raise the end-customer price, but then the MFNs could not have been binding with respect to the entrants. Entry therefore could not have failed because of the inability of the hotels to pass on savings from entry pricing to final customers.

44. Any analysis should therefore fully spell out a testable theory of harm that clearly identifies the mechanism through which foreclosure or higher prices would be achieved – having identified the vertical structure of the market appropriately, and having followed the correct approach to verifying substitution at the market definition stage. The framework must be specified before starting the evidence gathering, so that it can discipline the interpretation of evidence and avoid the conjectural approaches that are currently most common in complex cases.

7.4. Assessing entry conditions

45. Because markets in the digital economy tend to be fast moving, entry and exit with new business models at different points in the vertical supply chain are frequent. Failure of a significant number of entry attempts is normal under entry and exit dynamics, so that observed exit can neither be an argument for high entry barriers or foreclosure.

Neither is the existence of network effects, which is inherent in multisided markets, sufficient to presume entry is difficult. We have seen a number of services, for example ride sharing, in which the initial entry by Uber has been imitated multiple times – including with app based services from incumbent taxi companies.

46. Furthermore, network effects on the customer side can be easily overcome in multisided markets in which firms adopt platform models. Essentially it becomes easy to enter when a company already has a large customer base in related activities. There are countless examples of this: think of the shift of Tripadvisor from a travel advice and comment provider into a hotel price comparison site (later also with its own hotel bookings offering). Thinks of a service like "dinner boxes" (recipe choice online, plus ordering on the internet, and home delivery); we have seen entry in this market in the form of de novo entry, supermarkets branching out to cover such offerings, as well as a recipe provider like the magazine "Bon Apetit" teaming up with independent food providers to develop similar services in a vertically dis-integrated model, but based on its network of existing customers.

47. Thus while de novo entry may be possible, there can be many entry channels – vertically integrated or dis-integrated. This means that entry analysis to assess the likelihood of vertical foreclosure must systematically assess the *capabilities of firms in related markets to expand their activities and use their customer base to introduce a competing offer*. We cannot just look at vertically integrated entry, but need to assess entry also in parts of the vertical chain that can eliminate bottlenecks of individual access. Sometimes individual firms cannot effectively use services due to economies of scale – but in these cases intermediaries often enter that provide these economies by aggregating many small firms.

48. Entry analysis should therefore have four elements:

- Avoid a narrow focus only on *de novo* entry;
- Track the entry experience in the market so far, with emphasis on different paths of entry;
- Identify firms with an existing consumer base and assets in adjoining activities that could expand through imitative entry;
- Analyse entry failures with a view to whether they can be explained by a lack of innovative differentiation from existing offerings.

7.5. Evaluation of efficiencies, and consideration of the counterfactual

49. The most important issue in the analysis of efficiency claims is that a shift in attitude is required on the part of competition authorities. Firms in the main adopt vertical restraint to deal with problems they face in implementing business strategies when dealing with retailers – not because of anticompetitive objectives. As explained the reason lies – as in virtually all organisational forms (including outright ownership) – in the difficulties of writing complete contracts on all aspects of the actions of the contract partners. These business reasons need to be seriously engaged with by competition agencies, but currently they are not. Efficiency claims are routinely dismissed with reference to some contract that the firm could theoretically write that would eliminate the problem: for instance, that a contract could in fact be written that conditioned on the very variable with respect to which the contract is incomplete; or that all contracting problems could be solved with two-part tariffs.

50. These claims are not economically justified (just as the claim that "free riding problems do not exist"). There is ample evidence from everyday life and from the economic literature that (a) free riding is particularly pervasive in digital environments because its costs have declined, (b) the predictions of incomplete contracts theory explain shifts in ownership and contract structure in a multitude of markets. Furthermore, the theoretical literature makes clear that two-part tariffs solve incentive problems only in a non-generic set of cases, and they fail whenever firms in a contracting environment are not risk neutral. A first step in the analysis of efficiencies of vertical restraints should be for these simple principles to be acknowledged by competition authorities.

51. Second, we should not be asking firms to prove a negative: that there is never any other possible contract that could possibly have the same effect on resolving the contracting problem, but may not have potentially some anti-competitive effect. It is obvious that this will not be possible. Firms are required by precedent to show "objective justification" for a practice, but if what is "objective" is an entirely subjective assessment by case teams with strong priors, there is risk for firms whose vertical restraints have in practice no anticompetitive effects.

52. The basic issue is that the standards for proving efficiencies have been made impossibly high, while the standards for proving infringements are much lower. Of course it is entirely reasonable that to prove an infringement one does not have to show actual effects in many cases. This would be an impossible standard and would end effective enforcement. Quite reasonably the standard has been set to "likely effects", which can then be proven by a coherent theoretical framework and evidence that it applies (or even evidence that quite regularly in similar circumstances there have been anticompetitive effects). As there is little evidence for strong and widespread anticompetitive effects of vertical restraints, this is in practice a very low standard of proof – even if it is a reasonable one. However, it is then fundamentally wrong to set an impossibly high standard of proof for efficiency defences.

53. We therefore propose that efficiencies should be treated to the same standard as anticompetitive effects:

- There should be a clear theory for why the vertical restraints have been adopted ;
- The assumptions of the theory should hold in the particular market; and
- The predictions of the theory should be more consistent with the facts of the case than the anticompetitive theory the competition authority pursues.

54. In practice this would mean that **the burden of proof for the efficiency defence should depend on the strength of evidence for the theory harm.** For example, if a theory of entry-deterring effects is found to be inconsistent with the pricing behaviour of entrants, the efficiency explanation for the behaviour should gain greater weight.

55. Overall, the priority for the foundation of a more effective assessment of efficiency defences does not lie in new techniques of analysis, but in **creating standards of proof for efficiencies that can actually be met, and that are nothing more than the equivalent to the low standards which are routinely applied to "prove" likely anticompetitive effect.**

8. Conclusions

56. Economic analysis has failed to inform a rational policy towards vertical restraints in Europe, and this basic failure is carrying over to multi-sided environments. We have argued in this paper that the appropriate response is not to call for a separate toolkit for the analysis of vertical restraints in multi-sided markets. On the contrary, **most multi-sided markets can be reinterpreted for the purposes of analysis in antitrust cases as a standard contracting problem in vertically related markets.**

57. Most progress can therefore be made if we are able to adopt a simple structure of analysis that should be in principle familiar, but is not rigorously applied even in standard vertical cases. Our recommendations for the analytical framework is therefore not to focus on adapting techniques, but on the **approach to the analysis**. Just some improvements in approach to market definition and a systematic use of the assumptions and implications of theories of harm would lead to a much more reliable analysis of vertical restraints cases.

58. The call for new techniques may in part be a symptom of Industrial Organisation looking too much at the details of specific models and less at the bigger qualitative questions, which features of markets are important when considering policy intervention. It is not enough to tease out and try to trade off every conceivable effect of best price clauses, for instance, if these insights are not embedded in an investigative procedure that allows relevant and irrelevant theories to be distinguished from each other. It is unimportant that "there are models" showing anticompetitive effects, the key is whether such models need assumptions that tightly map into the market circumstances of the case. This is something we do not have enough clarity about (and discipline) in practice. The priority is to make sure that investigations put a process into place that makes the applicability of a specific theory directly testable, and makes this a stringent requirement – rather than relying on general "findings" and theoretical result in the literature to justify a prior.