State Aid to Infrastructure: Do Competitively Selected Operators Obtain an Undue Advantage?

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The usual disclaimer applies.
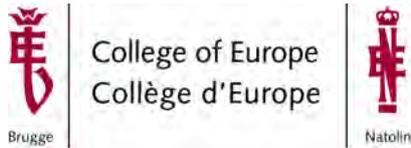
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Abstract

This paper reviews several cases where the Commission presumed that competitively selected operators of large infrastructure projects derived an undue advantage from state aid. The aid was granted to the owners of the infrastructure to supported investment in construction or upgrading. The practice of the Commission is not consistent or clear. The paper also shows that under reasonable assumptions, competitive selection of operators is indeed capable of eliminating any advantage above market rates of return or market rates of cost of capital. The paper demonstrates, both theoretically and with the use of numerical examples, that concession fees take into account any aid that is granted to the owners of infrastructure for its construction or upgrading.

1. Introduction

Since the landmark judgment in the Leipzig-Halle case[1], a large literature has evolved on whether public funding of infrastructure constitutes state aid or not.[2] The European Commission now considers any infrastructure which is used to carry out an economic activity to be itself economic in nature and any public funding received by the owners of the infrastructure to fall within the scope of Article 107(1) TFEU. Users who do not pay a market fee are also considered to receive indirect state aid.

In addition, the Commission routinely presumes that operators of infrastructure projects, who are different from owners or users, derive an advantage not available under normal market conditions. The Commission makes this presumption because such projects are partly funded by state aid. Indeed, it is rather natural to believe that when a project is partly subsidised by a public authority, the operator of the project obtains an advantage.

However, we show in this paper that under reasonable assumptions, competitive selection of operators can eliminate any advantage in the sense of receiving a return which is above market rates or market rates of cost of capital. The decisive element, of course, is the existence of a truly competitive selection procedure. If the procedure is defective, discriminatory or opaque, we wholeheartedly agree with the typical Commission statement that "an advantage for the chosen operator cannot be excluded."

Therefore, our primary objective in this paper is to demonstrate that in principle the Commission is wrong in presuming that competitively selected operators derive an advantage in the meaning of Article 107(1) TFEU. We also carry out a review of recently authorised measures of support of infrastructure projects and show that the Commission treatment of operators is inconsistent and varies without explanation from case to case.

The structure of the paper is as follows. In the next section we summarise the main findings of auction theory which are that, first, different auctioning methods have equivalent results and, second, the price bid for an asset is equal to the reservation price of the bidder with the highest valuation. Then we apply these insights to the auctioning of the right to operate an infrastructure project [i.e. a concession]. We also provide numerical examples. Lastly, we review seminal Commission decisions and show, first, that the conclusions of the Commission are not always consistent and, second, that they diverge without much explanation on the part of the Commission from the insights of auction theory.

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[1] See T-443/08, *Freistaat Sachsen & Land Sachsen-Anhalt v European Commission*.
[2] See, for example, *T. Wilson,* Infrastructure Financing and State Aid Post Leipzig-Halle, *European State Aid Law Quarterly*, 1/2014, pp. 24-27. For an application of the Leipzig-Halle principles in the case of sport infrastructure see R. Craven, State Aid and Sports Stadiums: EU Sports Policy or Deference to Professional Football, *European Competition Law Review*, 2014, vol. 35(9), 453-460. Even before the Leipzig-Halle judgment, academic writing questioned the approach of the Commission. See, for example, C. Koenig & S. Fechtner, The European Commission's Hidden Asymmetric Regulatory Approach in the Field of Broadband Infrastructure Funding, *European State Aid Law Quarterly,* 4/2009, pp. 463-472; C. Koenig, & A. Trías, A New Sound Approach to EC State Aid Control of Airport Infrastructure Funding, *European State Aid Law Quarterly*, 3/2009, pp. 299-310.

2. How auctions work

In order to assign rights or award concessions, public authorities and other institutional actors make use of auctions. In order to be a successful public policy tool, auctions have to be designed so as to satisfy two principles:[3]
- Pareto efficiency: The auction is won by the bidder who assigns the highest value to the asset or project.
- Profit maximization: The auction generates the highest expected profit for the seller

While profit maximisation appears as an obvious requirement for a well-designed auction, pareto efficiency might not. To see its importance, one should first simply understand that assigning an item to someone who has not the highest value for it cannot be optimal *ex-ante*. If the latter happens, then it is possible to make at least one person better off without making anyone else worse off. [This is the mirror side of the definition of pareto optimality according to which a situation is pareto optimum if welfare is maximised so that no one can be made better off]. If the winner is not the person with the highest valuation of the asset or item in question, then it is possible to make someone better off by asking those who value an item more to transfer some money to the person who has actually won the auction – a sum between the highest value and the winner's (lower) value – in order to convince the winner to transfer the item to those who care more about it.

The economic analysis of auctions considers the nature of the item which is auctioned as well as the rules of bidding. In this context we can make a distinction between private-value and common-value auctions. The first represents the case where all participants possibly have a different value to the item, depending on their strictly personal preferences – their taste for example. In a common-value action instead, there is a market value assigned to the item and participants then make offers depending on their estimates of how much the item is actually worth to them. Their offers determine to whom the item is assigned but this has the same market value regardless of the actual auction winner and of how much has been offered for it.

With respect to auction types, the most common is the so-called English auction, where everything starts with a reserve price – the lowest price at which the seller is willing to start the auction and potentially sell the item. After a process of successive (incremental) offers, the auction ends when nobody is willing to bid any further and the highest bidder wins the item at a price at least equal to the value assigned by the second-highest bidder to the item (second highest price).

Another type of auction is the Dutch auction where we start with a high price which the seller gradually lowers until somebody makes an offer. The first offer determines the end of the auction.

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[3] For excellent and accessible reviews of the economics of auctions, please see P. Klemperer, *Auctions: Theory and Practice*, (Princeton: Princeton University Press, 2004); D. Salant, *A Primer on Auction Design*, Management, and Strategy, (Toulouse, December, 2013).

A third type is the sealed-bid auction where each participant writes down a bid on a sheet of paper which then gets sealed into an envelope. After all envelopes are collected, the item is assigned to the participant with the highest bid. A sealed-bid auction may also include a reserve price which implies that if all sealed offers are lower than this price, then the auctioned item is left unassigned.

A very frequent variant is the sealed-bid second-price auction also called Vickrey auction, where the item is assigned to the highest bidder as usual but at the second highest price, i.e. the price equal to the offer of the second highest bidder.

More generally, an auction is defined by a set of rules which identify the bidding procedures for the participants as well as the modality through which a bidder actually wins an item, and how much has to be paid for it. Those who put the items on auction do not normally know the willingness to pay of the participants but have only some (probabilistic) expectations. The sellers are of course interested in finding auction methods and bidding rules that maximize the expected revenue generated by the sale. However, in the case of social planners using auctions to determine to whom to assign a certain right / license / concession, not only the revenue but also efficiency issues play an important role. Indeed as already explained, an auction is considered to be efficient if it allocates an item to the bidder that values it the most.

In the rare case where the seller knows how much the participants value an item, the auction design becomes a simple issue. Indeed the condition of profit maximization is respected by simply assigning the item to the bidder with the highest value for it. This is also enough for Pareto efficiency.

With respect to the more typical case where the item valuations are not known, different considerations have to be made with respect to the different types of auction described before.

The most common English auction delivers outcomes in lines with both Pareto efficiency and profit maximization. Indeed the auction awards the item to the participant with the highest value for it. Interestingly, introducing an *ad hoc* reservation price the seller might gain an even higher revenue than without it. However this maximizes only the seller's expected profits, as it cannot be assumed that in every auction participant will bid higher than the reservation price. Therefore only an English auction with zero reservation price respects both conditions.

Conversely, in the case of a Dutch auction with no information about item valuations, the auctioned item need not be awarded to the bidder with the highest value. The same applies to sealed-bid auctions. This is becasue each bidder's offer depends on the beliefs about the other bidders' valuations for the same item. It is only when participants have no expectation about others' valuations that the item goes to the bidder with the highest valuation.

In the sealed-bid Vickrey auction, if all participants bid their true (highest) value the item is assigned to the one who values it the most, with a price determined by the second-highest price. This is basically the same outcome as that which occurs in the English auction.

In auctions where participants are charged the second highest price it is optimal to state the true value that they assign to the item(s). In order to verify this we can consider two participants with possible valuations V_1, V_2 bidding respectively the amounts x_1, x_2 for the same item. The expected payoff for the first one is given by:

$$Prob(x_1 \geq x_2)[V_1 - x_2]$$

The first term is the probability that the offer of the first participant is the highest one. The second is the surplus that this participant receives in case of winning.

Assume initially that $V_1 > x_2$, i.e. participant 1 values the item more than the highest bid of participant 2. In this case it's rational to assume that the first participant would like to have the largest probability of being awarded the item. This is possible by bidding $x_1 = V_1$.

Conversely, in the case where $V_1 < x_2$, participant 1 would prefer not to receive the item as the value assigned to it is lower than the bid made by participant 2. In order to minimise the chances of receiving the item, participant 1 has only to bid again an amount equal to the true valuation for the item, i.e. $x_1 = V_1$.

Until now we have focused on participant valuations and offers. Let's change perspective for a moment taking the side of the seller and considering the case where the seller may want to set up a competition where participants are granted a certain right or concession depending on the value they report for a certain item. In case of winning, a price p is charged to the winner.

Here the aim is to design a mechanism where participants state their true value and the item is awarded to the one with the highest valuation. This is possible by applying an appropriate reservation price p.

Assume again two participants bidding for the same item, with participant 1 having the highest valuation for the item, i.e. $V_1 > V_2$ and suppose that the seller wants to induce the highest bidder to reveal his true value and offer accordingly.

As participant 1 has the highest value for the item, this implies that winning the item should give him a payoff at least equal to the following amount:

$$V_1 - p \geq 0$$

On the other hand the payoff of participant 2 should be negative if the orice exceeds its valuation. That is:

$$0 \geq V_2 - p$$

The two conditions holding together results in having a price p such that

$$V_1 \geq p \geq V_2$$

i.e. the reservation price should lie between the highest and the second highest valuation for the item. Interestingly this is the same result stemming from the

sealed-bid second-price auction and it is proven to maximise both efficiency and expected revenue.

In conclusion, auction theory suggests that, under reasonable information and risk assumptions, various types of auctions are equivalent and that they induce bidders to make offers which are equivalent to their true valuations of the item that is auctioned. Under these conditions, the outcome is efficient [i.e. maximises welfare or value] and maximises revenue for the seller.

3. Auctioning the right to operate a facility eliminates undue advantage

The previous section explained the basic insights of auction theory. What happens when the bidding is for the purpose of choosing the company that is willing to accept the lowest compensation or fee in order to build and operate a facility on behalf of a public authority? When persons bid for an item they like, they quote as high a price as their valuation of that item. But would a competitive procedure induce companies to quote the smallest possible fee? We show in this section that this is indeed the case.

Assume that a firm incurs net costs C in order to build and operate a project on behalf of a public authority. Net costs are the sum of upfront investment costs, operating expenditure and any costs for financing the investment minus operating revenue. The public authority that owns the project will pay a fee, F, to the operator. The fee must cover the net costs, otherwise no private operator would be willing to undertake the project. However, the authority does not know the amount of net costs. The firm therefore can charge a fee that is equal to $F = x + C$, where x is an amount of profit in excess of the costs incurred by the firm.

The minimum fee that can be charged by the most efficient firm on the market, F_i, must be no less than the net costs, C_i, of that firm. However, the maximum fee that can be charged by the most efficient firm must be no more than C_j which is equal to the net costs incurred by the second most efficient firm on the market. It follows that $C_j > F_i > C_i$. This inequality can be expressed as follows:

$$F_i = (C_j - C_i) + C_i$$

Therefore, $x = C_j - C_i$. If C_j is known with certainty, then x is known with certainty and it follows that $F_i = C_j$. But in reality there is always some uncertainty about the costs of competitors. The magnitude of x can only be known probabilistically. If p is the probability of guessing the costs of the competitor correctly, then $F_i = xp + C_i$. If $p = 1$, then $F_i = C_j$ and if $p = 0$, then $F_i = C_i$. This means that if the firm is absolutely certain about the costs of its competitors it will charge a fee that is equal to the cost of the second most efficient firm and if the firm knows absolutely nothing about its competitors, it will charge a fee that it is equal to its own costs.

But one may argue, correctly, that firms are not at these two extremes. They always have some idea of the costs of their competitors. Hence the fee they will charge will be equal to their own costs plus the difference between C_j and C_i multiplied by a percentage [which is equal to the probability of knowing correctly competitors' costs].

However, the conclusion above is based on the explicit assumption that the firm is the most efficient and on the implicit assumption that other competitors will submit fees that correspond to their true costs. What happens when firms are not sure whether they are the most efficient on the market and do not know how high or low will be the fees submitted by competitors?

Moreover, other firms will naturally also try to figure out where to pitch the fee they quote on the basis of their beliefs about what other firms will do. This competitive interaction has important consequences.

Assume that there are two firms which are equally efficient. Further assume that each firm can choose between two options: quoting a fee that is equal to its own costs, indicated as "Low", and attempting to charge a higher fee that can generate some extra profit, indicated as "High".

Given that the firms participating in the bidding process are competitors, they rank the possible outcomes as follows: Win > Draw > Lose. That is, they would like to win but still prefer that there is no winner than to be the loser.

A possible pay-off matrix is given below. For two firms with similar costs, if one bids high and the other bids low, the latter wins, and vice versa. If both bid either high or low, neither wins, and the outcome is a draw [D].

		Firm j	
		High	Low
Firm i	High	D, D	L, W
	Low	W, L	D, D

The optimum strategy for each firm is to bid low [in our example, the outcome is D,D]. It is easy to explain why this is true for firm i. The same logic applies to firm j. Consider the reasoning of firm i. If firm j bids high, firm i wins by bidding low. If, by contrast, firm j bids low, firm i, forces a draw by bidding low too. It follows that irrespective of what firm j does, firm i will bid low. And so will do firm j.

We have shown in this section that under fairly reasonable assumptions about uncertainty concerning the true level of competitors' costs, a competitive selection procedure drives bidders to quote prices which are very close or equal to their costs. It is only when firms have information about the true costs of competitors that the competitive process will not equalise quoted prices or fees with the costs of the most efficient firm. But at minimum, it will drive quoted prices or fees to the level of the second most efficient firm.

However, even when the fee is reduced to the level of the second most efficient firm, we still have an outcome which is the most likely to occur under normal market conditions. If firms know the level of the true costs of their competitors they will not price below that level. Therefore, the overall conclusion we can draw is that a competitive selection procedure forces firms to behave in the same way as they would on the market.

4. Concession fees and the cost of capital

In this section we show that competitive selection of operators eliminates profit in excess of market rates, i.e. any advantage that could not be obtained under normal market conditions which is the meaning of advantage in Article 107(1) TFEU.

Now we assume that a project generates revenue that may or may not cover its investment and operating costs. In the case that the revenue covers all costs, a firm that is granted the concession to build and operate a facility will be prepared to pay to the public authority that owns the facility a concession fee that is equal to the net revenue. But in case the revenue falls short of the total costs, the concessionaire will demand a subsidy.

We show that the concession fee which is paid by a concessionaire to the public authority eliminates any advantage that may be derived from the state aid which is granted in order to make the project commercially viable. In other words, even though state aid is necessary for the project to break even, the operator obtains no advantage above the market rate of return for its capital.

The concession fee

Let V be the value that an investor attaches to a project. If there are no linkages between this project and other projects, then at maximum, this value must be $V = R - C$, where R is operating revenue and C is operating cost.

If a fee, F, is charged for the right to operate the project, then the maximum fee that the investor is prepared to pay must be $F = V$.

As shown in the previous sections, under competitive conditions and uncertainty about the offers of other potential bidders for the project, the investor will make an offer which is equal to the maximum fee that he is prepared to pay, which in turn must be equal to the expected net revenue.

If the project is a concession where revenue can be generated only after an initial investment by the successful bidder, the maximum concession fee is:

$$F = R - C - I - rI = R - C - I(1 + r) = R - C - I(1 + r)$$

where I is the amount of the necessary investment and r, expressed as a %, is the cost of funding that investment [it is equal to the rate of interest of a commercial loan or the required rate of return on equity].

[In practice, concession contracts are awarded for multi-year periods. Future revenue and costs have to be discounted to present values. But here we assume, for simplicity, that everything takes place within the same time period. This simplification facilitates exposition but does not detract from the logic of the calculations.]

If a public authority provides a subsidy S to reduce the cost of the initial investment, then:

$$F_s = R - C - (I - S)(1 + r) = (R - C - I(1 + r)) + S(1 + r) = F + S(1 + r)$$

where F_s is the fee when a subsidy is granted.

By comparing F and F_s, we see that $F_s > F$. Not only is the fee higher as a result of the subsidy, but rather surprisingly, the fee increases by more than the amount of the subsidy! It will incorporate the amount of interest that the successful bidder will be able to earn on the money that it can keep in the bank instead of investing it in the project. A competitive process eliminates the advantage conferred by the subsidy.

Indeed, by differentiating F_s with respect to the subsidy, S, we see that

$$(dF_s/dS) = 1 + r > 0$$

That is, the amount of subsidy has a constant relationship with the fee, which is equal to one plus the cost of capital.

Funding gap

The intervention of a public authority to support the construction of infrastructure is needed when there is a funding gap, G, which is

$$G = R - C - I(1 + r) < 0$$

The net revenue generated by the project is less than the required up-front investment. In principle, the maximum amount of subsidy, S, is that which eliminates the funding gap and makes it possible for a private investor to undertake the project. That is,

$$R - C - (I - S)(1 + r) = 0$$

Indeed, in practice, public authorities intervene only when there is a funding gap, G. But offering a subsidy to bridge the gap, such that $S = -G$, is not a smart strategy. The funding authority is likely to know only the required up-front investment and the expected revenue, but is not likely to know the operating costs of the prospective operator of the infrastructure or its costs of capital.

It must, therefore, organise a competitive procedure to award the contract to the bidder that will offer the highest fee, F, which would reflect the true costs and expected efficiencies of each bidder.

Now, assume that a funding authority offers subsidy, S^*, that it believes it eliminates the funding gap but it cannot be sure about it because it does not know the true future costs of the winning bidder. [The superscript * indicates amounts calculated by the public authority.] If the amount of S^* is correctly calculated, then the fee must be zero

$$F^* = R^* - C^* - (I^* - S^*)(1 + r^*) = 0$$

But assume that $C'' < C^*$ [The superscript " indicates the bidder's true costs.] The fee that would be quoted by the successful bidder would be

$$F" = R^* - C" - (I^* - S^*)(1 + r^*)$$

By comparing F* and F", it follows that F" > F* because

$$R^* - C" - (I^* - S^*)(1 + r^*) > R^* - C^* - (I^* - S^*)(1 + r^*)$$

or, $- C" > - C^*$ which leads to $C" < C^*$ which is true [defined as such].

Once more, it becomes obvious that the competitive process corrects the mistakes of the funding authority and removes any advantage that is conferred by any excess subsidy.

Numerical examples

The principles derived above can be illustrated with a few numerical examples that show how the fee varies with the extent of the funding gap and the amount of the subsidy.

Case 1: No funding gap, no state aid [R = 130, C = 20, I = 100, r = 5%]
$F = 130 - 20 - 100(1.05) = 5$

Case 2: No funding gap, state aid of 80 [R = 130, C = 20, I = 100, r = 5%]
$F = 130 - 20 - 100(1.05) + 80(1.05) = 5 + 84 = 89$
The fee rises not just with the reduction in costs but also incorporates the extra benefit that the investor enjoys by keeping the money (80) in the bank!

Case 3: Funding gap of 25, no state aid [R = 100, C = 20, I = 100, r = 5%]
$F = 100 - 20 - 100(1.05) = 80 - 105 = - 25$
This means that the project will not be undertaken. The public authority has to <u>pay</u> 25 to the operator to make the project viable.

Case 4: Funding gap of 90, state aid of 80 [R = 35, C = 20, I = 100, r = 5%]
$F = 35 - 20 - 100(1.05) + 80(1.05) = 15 - 105 + 84 = 6$
The state aid of 80 is excessive. The investor pays back 6 in terms of a fee.

Case 5: Same as above, but now there are two bidders, one with $r1 = 5\%$ and another with $r2 = 7\%$. Their respective fees are $F1 = 6$ and $F2 = 4.4$. The winner is the bidder with the lower cost of capital. Once more, the competitive process eliminates the advantage from the lower cost of capital.

5. The practice of the Commission

The purpose of this section is to demonstrate that the Commission practice is defective because it fails to take fully into account the impact of competitive selection. The Commission does not explain why competitive selection is not sufficient to remove any advantage. In all cases reviewed in this section there was state aid to the entity that owned the infrastructure. The Commission's assessment of the existence of state aid at the level of the owner was undoubtedly correct. The owners of subsidised assets did derive an undue advantage not available under normal market conditions. However, as explained in earlier sections, the presence of

state aid for the owner does not necessarily entail an advantage for the operator who is competitively selected.

Moreover, the Commission practice is not consistent. To prove this claim, we quote below the relevant excerpts from several recent Commission decisions. As will be seen, it is not clear why in certain cases the Commission cannot exclude the presence of undue advantage. Perhaps the facts in those cases are such that the Commission was right to conclude that there was advantage in the meaning of Article 107(1) TFEU. However, the explanations are brief and incomplete in the sense that it is not obvious to the reader which factors influenced the Commission's findings. Hence, not only are there inconsistencies, but there is also unexplained variation from case to case.

But before we examine the decisional practice of the Commission, it is necessary to acknowledge that the Commission does appreciate that what matters is whether an operator obtains a return that covers its cost of capital. The following is from a Commission decision SA.33988 concerning exclusive rights to OPAP, a Greek undertaking, to operate games of chance:[4]

"(28) The Commission considers that the presence of an economic advantage, within the meaning of article 107(1) TFEU, can only be excluded in the case at stake, if the Greek State, …, leaves OPAP with the minimum return necessary for an average company to cover its operational and capital costs."

"(29) By allowing OPAP to keep only such reasonable return out of the revenues generated by the operation of the games and the gaming machines, the State will ensure that the operator does not earn more (in terms of return rate) than in a normal market situation."

"(30) "[…] based on the Capital Asset Pricing Model, the Weighted Average Cost of Capital of OPAP should range between […] and […]. This range […] therefore corresponds to the maximal Internal Rate of Return that could be left to OPAP as a reasonable return to avoid granting any economic advantage to the operator."

It is puzzling why the Commission does not apply these principles to all cases.

5.1 Cases where no advantage was found

Commission Decision SA.36346, land development scheme for industrial and commercial use, Germany[5]
Developers
"(39) In so far as developers are involved, according to the provisions of the measure, they would always be selected through an open, transparent and non-discriminatory public procurement procedure and thus provide their services against a market conform fee. Under these conditions, there is <u>no advantage</u> within the meaning of Article 107(1) TFEU to developers." [Emphasis added. The same applies to all other quotations in this section.]

SA.35440, multifunktionsarena der Stadt Jena[6]

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[4] The text of the decision can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/242851/242851_1381586_227_1.pdf
[5] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/248011/248011_1534293_255_2.pdf
[6] It can be accessed at:

Management of the arena
"(13) The management company, which the City of Jena will contract to market the stadium for professional users and to assist in the organisation of their events, enters into a commercial service contract with the municipality. The contract will be concluded following a tender procedure which also includes the requested management fee and will include incentives for this company to maximise income for the City of Jena. There is nothing which suggests that the management company will benefit from an exceedingly high management fee which would not any more reflect market terms. It is thus not benefiting from aid."

SA.38302, port of Salerno[7]

"(21) The PAS shall organise public, open and non-discriminatory tenders for the selection of terminal operators, in accordance with EU public procurement law. … The Italian authorities also confirmed that the tenders for the concession contracts will comply with the EU and Italian public procurement legislation and that a large degree of advertising will be ensured."

"(22) According to the Italian authorities, the above-mentioned public tender procedures will ensure that the resulting concession fees to be paid by the future concessionaires will be in line with the market price. In particular, the Italian authorities have committed themselves to cross-check the concession fees resulting from such tenders according to the method of discounted cashflow and to conduct a comparative analysis with fees paid for similar concession contracts in other Italian and foreign ports."

Concessionaires
"(46) As the Italian authorities declare, future concessionaires will be chosen on the basis of public, open and non-conditional tenders, in compliance with EU public procurement law. The award criteria will be transparent and non-discriminatory, and will ensure that the economically-most-advantageous offers shall be chosen. The Italian authorities have also committed that such tender procedures will result in concession fees in line with market prices. In particular, the Italian authorities will cross-check the concession fees resulting from such tenders and will conduct a comparative analysis with fees paid for similar concession contracts in other Italian and foreign ports. These procedures will therefore <u>exclude any economic advantage</u> in favour of the future concessionaires."

Port users
"(47) The Commission observes that since the tender procedures will exclude any economic advantage in favour of the future concessionaires, <u>no advantage</u> will be granted at the level of end-users. The Italian authorities also declare that the end-users shall enjoy equal and non-discriminatory access to the infrastructure."

5.2 Cases where advantage could not be excluded

SA.36953, port of Bahía de Cádiz[8]

http://ec.europa.eu/competition/state_aid/cases/245993/245993_1426021_127_2.pdf
[7] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/251758/251758_1536127_128_2.pdf
[8] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/249217/249217_1481221_99_2.pdf

Concessionaire
(39) The concession contract for the operation of the new container terminal shall be concluded on the basis of a public, open and non-conditional tender, in compliance with EU public procurement law.

"(40) The above-described administrative contracting procedures shall observe transparency and non-discrimination criteria, and the economically-most-advantageous offers shall be chosen. Therefore, assuring that the tendering procedure will comply with those criteria, it will <u>exclude or minimise</u> the economic advantage in favour of the future concessionaire (i.e. the advantage, if any, will be the minimum necessary to ensure the actual operation of the infrastructure)."

[In this case the Commission is particularly obtuse. It says that competitive selection can eliminate or minimise advantage without indicating under which conditions either possibility can actually occur.]

Commission Decision 2014/297, multifunctional arena in Copenhagen[9]
Operation of the arena
"(43) The selected operator will pay rent consisting of an annual fixed rent of [...] and a variable rent [...]. The operator must also pay [...] due under the lease and thus the operator effectively pays all variable costs as part of the lease, including maintenance costs. The lease is concluded for a term of [...] years (all bids had to be for at least 25 years and the operator has explained that long term contracts from 20-30 years are not unusual in this business)."

"(44) While these arrangements minimise the advantage to the selected operator to the minimum necessary to ensure operation of the infrastructure, an advantage to the operator of this new arena <u>cannot be excluded</u>. However, given that such aid would be compatible with the internal market, as demonstrated below, it is not necessary to make a definitive finding about the existence of aid."

Commission Decision 2013/452, arena in Uppsala[10]
Operation of the arena
"(40) With regards to the lease agreement between the municipality and the Events Company for the use of 20% of the total arena capacity, it shall be for 25 years with a rent of SEK 15 million per year (or EUR 1.7 million). Sweden has declared that: (i) the municipality will pay an hourly rent that is 40 to 50% lower than the rent that the Events Company will pay the Property Company for their use of the arena (ii) the difference between the rent that the municipality and the Events Company pays will increase over time; and (iii) the Events Company will charge market rents to other users."

"(41) While these arrangements minimise the advantage to the Events Company to the minimum necessary to ensure operation of the infrastructure, an advantage to the operator of this new arena within the market for operating such facilities <u>cannot be excluded</u>. However, given that such aid would be compatible with the internal

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[9] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/244149/244149_1320462_40_5.pdf
[10] it can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/244148/244148_1320500_16_2.pdf

market, as demonstrated below, it is not necessary to make a definitive finding about the existence of aid."

SA.36223, port of Santa Cruz of Tenerife[11]
Concessionaires
"(50) With respect to the rental of the infrastructures resulting from the project to service providers, as explained in recitals (13)-(16) above, the PSCT shall conclude administrative concession contracts on the basis of procedures regulated by the Spanish framework law on ports LEPEYMM. First, the PSCT shall organised open and non-discriminatory tenders for the rental of those port infrastructures which are destined to the provision of port services of general use, as well as for the rental of the freight terminal (Article 86 LEPEYMM). Secondly, functional areas over 2 500 sqm which do not fall into one of the categories for which the public tender is obligatory under Article 86 LEPEYMM shall nevertheless be rented following a 'project competition' administrative procedure, based on the criteria defined in Article 85 LEPEYMM. Thirdly, functional areas below 2 500 sqm shall be rented directly, but on the basis of rental price established though an expertise carried out according to criteria aimed at establishing the market value of these functional areas, as required by Article 83 LEPEYMM."

"(51) The above-described administrative contracting procedures shall observe transparency and non-discrimination criteria, and the economically-most advantageous offers shall be chosen. Therefore, without the need to take a definitive view on the qualification of the measure as aid, these procedures will tend to minimise the economic advantage in favour of the future service providers (i.e. the advantage will be the minimum necessary to ensure the actual operation of the infrastructure)."

Port users
"(52) With regard to the end users of the new infrastructure, the Commission observes that they shall enjoy equal and non-discriminatory access to the new infrastructure. Moreover, the various port service providers will have to base their pricing policy vis-à-vis end users on economic considerations in order to obtain sufficient revenues to be able to pay for the concession fees applicable to them and to also make a profit. Those concession fees will be established according to procedures ensuring that the aid elements benefitting the concessionaires, if any, are limited to the minimum. In the light of the above the Commission concludes that any potential advantage in favour of end users will be granted on non–discriminatory terms and will be minimised (i.e. it will be the minimum necessary to ensure the actual use of the infrastructure, while ensuring the profitability of the concessionaires)."

SA. 34940, port of Augusta[12]
Contractors and terminal operators
"(60) Even though, the best modality for ensuring that the concession price to be paid by the current operator for the use of the new infrastructure will be market-conform would be to organise an open, public, and non-discriminatory tender, taking

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[11] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/248020/248020_1453836_60_2.pdf
[12] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/246189/246189_1407362_66_2.pdf

into account the overlap between Intervention 2 and the concession contract currently entrusted to that private operator that will expire in 2021 and the fact that its concession fee will be adapted upwards to reflect the expected cash flow, which must be calculated on the basis of solid and reliable assumptions, the Commission concludes that those arrangements provide sufficient safeguards to ensure that any potential advantage granted to that operator will be <u>minimised</u> (i.e. will be the minimum necessary to ensure the actual operation of the infrastructure)."

"(61) Finally, the Italian authorities also indicated that the current concessionaire will also have the possibility to participate in the public, open, and non-discriminatory tenders for the use of the other infrastructures built through this project, once the works for their construction are concluded (end 2015). For this scenario, it is noted, similarly to the above findings regarding the future new concessionaires, that participation in the tender procedure will <u>minimise</u> any potential economic advantage in favour of the future concessionaires."

5.3 Cases where advantage was present

SA.35135, multifunktionsarena der Stadt Erfurt[13]

Operator of the arena
"(10) The infrastructure is put at the disposal of an undertaking which will let it to various users against remuneration. This operating company may exploit the arena, although the full costs of building the infrastructure are not passed on to it. It is thus saving costs in comparison to a situation which would reflect commercial terms. Although the private partner of the operating company will be chosen as a result of an open, transparent and non-discriminatory procedure (ensuring that it does not receive more than a normal market return for its activity and thus excluding overcompensation), an advantage would be present for the operating company; the rent will not include the recovery of the full costs of building the infrastructure, which is used by the operating company for carrying out its economic activity, and the city will refund the operator for the low fees it is asked to request from non-commercial users, an income it would not have without this financial intervention. Therefore, the <u>operator enjoys an economic advantage</u> from state resources. The operator is thus the beneficiary of aid."

SA.37373, ice ring[14]
Construction
"(50) At the infrastructure level, state aid can only be excluded if the circumstances correspond to normal market conditions. Given that Thialf OG BV will make use of a restricted European public procurement procedure to select the building company, this condition is fulfilled."

Operation
"(51) Nevertheless, the aid measure will alter existing market conditions at the level of the operation and use of the renovated arena. The availability of upgraded ice

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[13] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/245994/245994_1426005_90_2.pdf
[14] It can be accessed at:
http://ec.europa.eu/competition/state_aid/cases/250448/250448_1502751_94_2.pdf

skating infrastructure would allow both the operating company and the users of the ice arena (including professional users) to benefit from facilities that would not be available on market terms. This operating company and at least some of the professional users of the upgraded infrastructure are in competition with other undertakings. Therefore the measure <u>distorts or threatens to distort competition</u> in the sense of Article 107(1) TFEU."

"(54) The Commission therefore considers the contribution to the renovation of the Thialf ice arena to be state aid in the sense of Article 107 (1) TFEU. The beneficiaries of this aid include Thialf OG and possibly the operating company of the arena and its professional users. The extent of the potential advantage which the operator and the users of the arena receive, if any, is <u>uncertain</u>. However, if the aid can be considered compatible with the internal market, ... it is not necessary to make a definitive finding about the existence of aid to the operating company and the professional users."

SA.33045, Kristall Bäder[15]

"(37) As the expected revenues (in this case, the advanced payment of the concession fees of EUR 6.124 million paid by the concessionaire to the Municipality as a contribution to the initial investment) <u>do not cover the full investment costs</u> of the project (EUR 12.124 million), it must be concluded that a private investor would not have undertaken it. Even taking into account the fact that this project avoided the costs incurred in case of closure of the complex Trimini and the fact that the Municipality would be the owner of the complex after 25 years of concession without any obligation towards the concessionaire <u>no private investor would have undertaken</u> such a project. Indeed, the public authorities had three options (as detailed in the following developments, see recitals 44 to 47). No private operator would have chosen continuing the activities of Trimini (which would have entailed EUR 25 million of losses). Furthermore, the difference between the cost of the option of closing Trimini by dismantling it (EUR 5 541 000) and the one of investing into modernisation and extension (EUR 6 830 795) would amount to EUR 1 289 795. It does not result from the information taken into account by the German authorities that the net residual value of the Trimini complex after 25 years (taking into account the dismantling/ demolition costs and the costs of dismissing 33 employees) would be higher than EUR 1 289 795. It must be concluded that in this case the <u>public funding does not take place on terms that would have been acceptable to a private investor</u>, and the measure therefore confers an economic advantage to the new Trimini complex."

[Here it must be observed that the Commission does not even make a distinction between the owner of the Trimini complex – which was the Municipality – and the concessionaire who was selected competitively.]

SA.35738, port of Katakolo[16]

Owner-operator

"(49) In the case at hand, the financial data show a negative value of the FNPV, i.e. the expected revenues do not cover the investment costs of the project. Given the results of the financial analysis provided by the Greek authorities, it must be concluded that the investment would not have been undertaken by a private investor. Therefore, the notified measure provides PMPF [owner-operator] with an advantage that it would not have received under normal market condition."

"(50) Therefore, in the light of the above and of the fact that the Greek authorities do not claim that the market investor test is met, it must be concluded that in this case the State did not act as a market investor, and the measure confers an economic advantage to the PMPF."

[This is perhaps the only case where it was clear that the operator received state aid. The reason was that the operator was also the owner of the port.]

6. Conclusions

In this paper we have reviewed a number of cases where the Commission presumed that operators of large infrastructure projects derived an undue advantage from state aid that partly supported investment in those projects, despite the fact that the operators were competitively selected. We show that the practice of the Commission is not consistent or clear. Occasionally, it also finds that competitive selection of operators eliminates any undue advantage. Yet, the Commission does not sufficiently explain why competitive selection is capable of eliminating advantage in some cases, while in others it is not.

More importantly, we have also shown that under reasonable assumptions, competitive selection of operators is indeed capable of eliminating any advantage above market rates of return or market rates of cost of capital. The decisive element, of course, is the existence of a truly competitive procedure. If the procedure is defective or discriminatory and opaque, an advantage for the chosen operator cannot be excluded.

We have also demonstrated, both theoretically and with the use of numerical examples, that concession fees take into account any aid that is granted to the owners of infrastructure for its construction or upgrading. Therefore, the single most important conclusion from our analysis is that competitive selection of operators is sufficient to eliminate any advantage that is conferred by state aid to the owners of infrastructure.