A Case Study on Bid Rigging in Centralized Procurement of Consulting Services in Italy[♣]

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Abstract

Public procurement is plagued by bidding rings almost everywhere. While the reasons as to why cartels are active in public procurement markets are well understood, little evidence is available about the subtleties of the anticompetitive mechanisms adopted by cartels members to game procurement procedures. This paper borrows from an in-depth (and successful) investigation carried out in 2016 by the Italian Competition Authority (*Autorità Garante della Concorrenza e del Mercato* - AGCM) on a nation-wide (multi-lot) framework agreement for consulting services. The AGCM's findings are noteworthy since the "conjectured logic" of the cartel's behavior (*endogenous evidence*) did coincide with those pieces of evidence seized by police forces for criminal crimes at the cartel members' premises (*exogeneous evidence*). As the investigation was triggered by a confidential report sent by the awarding authority (Consip, the Italian national central purchasing body), the paper also emphasizes the importance of informal as well as formal co-operation between awarding authorities, especially central purchasing bodies, and competition authorities.

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[♣]The authors remain sole responsible for the interpretation of the Italian Antitrust Authority's official decision #1796.
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1. Introduction

On 15 March 2016, the Italian Competition Authority (*Autorità Garante della Concorrenza e del Mercato* - AGCM)[1] launched an investigation on Deloitte & Touche S.p.A. (Deloitte & Touche), Meridiana Italia S.r.l. (Meridiana), KPMG S.p.A. (KPMG hereafter), PricewaterhouseCoopers S.p.A. (PwC), PricewaterhouseCoopers Advisory S.p.A. (PwC Advisory), and Reconta Ernst & Young S.p.A. (EY) to ascertain alleged infringements of Article 101 of the Treaty on the Functioning of the European Union (TFEU). On 4 August 2016, the investigation was extended to KPMG Advisory S.p.A. (KPMG Advisory), Deloitte Consulting S.r.l. (Deloitte Consulting), and Ernst & Young Financial Business Advisory S.p.A. (EYFBA). Apart from Meridiana, the consulting and auditing companies involved belong to the Deloitte, KPMG, EY, and PwC *networks*, the so-called Big Four.

The alleged concerted practices investigated by the AGCM concerned technical assistance services for the use of EU structural funds. Indeed, to ensure the proper use of the funds EU Regulation No 1303/20131 foresees that Member States shall carry out a series of inspecting and reporting activities on the way funds are employed and spent. More precisely, Member States shall designate a Managing Authority, responsible for managing the operational program in accordance with the principle of sound financial management[2], and a Certifying Authority, responsible for drawing up and submitting payment applications to the Commission as well as for certifying that the former result from reliable accounting systems, are based on verifiable supporting documents, and have been subject to verifications by the Managing Authority[3]. Member States shall also appoint an Audit Authority, independent from the Managing Authority and from the Certifying Authority to ensure that audits are carried out on the proper functioning of the management and control system of the operational program and on an appropriate sample of operations based on the declared expenditure[4]. In order to carry out the abovementioned activities, commonly referred to as *technical assistance*, Public Administrations avail themselves of experienced professionals in the field.

In 2015, Consip S.p.A (Consip)[5], on behalf of the Italian Ministry of Economy and Finance, launched two open tendering procedures for technical assistance services: The first one for the assistance to the Audit Authorities (hereinafter the AAs tender) — the investigated tender — and the second one for the assistance to the Managing Authority and the Certifying Authorities (hereinafter MA-CAs

[1] www.agcm.it

[2] See Article 125 of the EU Regulation No 1303/2013.

[3] See Article 126 of the EU Regulation No 1303/2013.

[4] See Article 127 of the EU Regulation No 1303/2013.

[5] Consip S.p.A. operates as a joint-stock company held by the Italian Ministry of Economy and Finance (MEF), which is the sole shareholder. It carries out activities in consulting, assistance, and support in procuring goods and services for Public Administrations.

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tender). Both tenders were designed as single-award multi-lot framework agreements with fixed conditions[6]. Seven out of nine lots were designed according to a geographical criterion, the two remaining lots were allocated to central government authorities.

The main objective of the paper is to provide a detailed account of the "cartel's logic" as brought to light by the AGCM's investigation. This case provides an infrequent example of substantial congruence between the results of the economic analysis of cartel members' bidding behavior ("endogenous evidence") and those pieces of evidence collected during the investigation by the police forces for financial crimes ("exogenous evidence"). As the case was triggered by confidential report sent by Consip to the AGCM, it also reinforces the importance of a close cooperation between awarding/contracting authorities and antitrust authorities as emphasized by the most recent international principles on preventing and fighting bid rigging in public procurement.[7]

We shall strive at pointing out how the cartel managed to exploit some crucial features of the tender design to implement its collusive scheme. Detailed analyses of cartel's behavior are scant in the specialized literature. At least two main reasons appear compelling. The first one is that tender design in public procurement often comprises more than just the financial dimension, which makes the meaning of "competitive behavior" a slippery concept and, consequently, makes anticompetitive patterns extremely difficult to recognize. Even comprehensive works on collusion such as Marshall and Marx (2012) deal with price-only bidding rings.[8] When only price matters, any procurement process can be assimilated to a reverse auction, thus all the economic weaponry of collusion in *selling* auctions is immediately applicable. The second reason is that framework agreements comprise a wide family of different procurement solutions, which have only recently started to draw researchers' attention.[9] The analysis of anticompetitive behavior in framework agreements represents then an even more challenging endeavor. An in-depth analysis of case studies might then provide valuable hints to both public procurement practitioners and academics as to the potential anticompetitive drawbacks of framework agreements.

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[6] A *single-award framework agreement with fixed conditions* implies that *i*) the agreement is concluded between the awarding authority and the highest-ranked bidder only and *ii*) all contractual conditions are determined at the first stage of the process, therefore procuring entities will only issue purchasing orders at the second ("call-off") stage. Framework agreements are arguably the most widely adopted technique for demand aggregation. See Albano and Nicholas (2016), Ch. 2, for a taxonomy of the main sub-families of framework agreements used under different regulatory regimes.

[7] See OECD (2012) and EC (2021).

[8] Albano *et al*. (2006) provide a qualitative analysis on collusion in public procurement, although touching only lightly on the case of bidding rings when both price and quality matter.

[9] To the best of our knowledge, Albano and Sparro (2008) analyse the first stylized (game theoretical) model of framework agreements under the assumption that no collusion arises among bidders. Albano and Nicholas (2016) devote almost one third of the book to discuss the potential anticompetitive drawbacks of framework agreements.

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2. The Tender Design

On 15 March 2015, Consip launched an open procedure on behalf of the Audit Authorities to procure technical assistance services for the monitoring and audit of the programs co-funded by the European Union. The resulting public contracts would have a 5-year lifespan with an additional 12-month option. In what follows, we will outline the most relevant aspects of the tender design. This is instrumental to better understand the cartel's mechanism to soften competition.

2.1 Subject matter and participation requirements

Technical assistance to AAs crucially depends on the nature of the activities carried out by the AAs themselves. The main activities can be grouped into 3 main sets: i) Audit on operations; ii) Audit of the system; iii) Annual reporting activities. As to i), AAs carry out targeted inspections so as to ascertain the effectiveness, correctness and admissibility of expenditures relating to operations included in the Operational Program, that is, the set of projects to be realized by using EU funds. Activities in group i) would then include sampling of expenditures to be examined, legal and technical analyses, drafting of reports, quality review of audit activities, monitoring of all necessary actions to correct critical findings. Activities in ii) include a broader monitoring of the overall audit system of the local organizations spending EU funds. Finally, activities in iii) comprise a large array of reports to be sent annually to central government as well as to EU institutions.

Technical assistance to AAs would then be provided by a potentially large set of consulting/audit companies.

Participation requirements hinged essentially on financial capabilities. Two kinds of "turnover requirements" were foreseen. One "general requirement" foresaw that each potential participant's *cumulated* turnover of the previous 3 fiscal years before the publication of the call for tenders had to be at least 40% of the value of each single lot; a second "specific requirement" foresaw each potential participant's *cumulated* turnover of the previous 3 fiscal years for consulting services to Audit, Managing and Certifying Authorities before the publication of the call for tenders had to be at least 10% of the value of each single lot. Basically, the "specific turnover requirement" was instrumental to screen participants with some minimum business experience in exactly the same kind of consulting services.

2.2 Lots and award limits

As shown in Table I, nine lots were to be awarded, amounting to an overall (estimated) value of approximately €66.5 million, where the estimated value of each single lot was the result of the product

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between an estimated number of days/person for 3 different professional profiles and the reserve price for the daily fee corresponding to each professional profile shown in Table II. The first seven lots were defined according to a geographical criterion (bundles of regions), while the last two were dedicated to central administrations.

Lot number	Procuring entities	Estimated value	
1	Regione Liguria, Regione Lombardia, Regione Piemonte, Regione Valle d'Aosta	€	3,980,375.00
2	Regione Friuli Venezia Giulia, Provincia Autonoma di Bolzano, Provincia Autonoma di Trento	€	4,016,115.00
3	Regione Emilia Romagna, Regione Toscana, Regione Veneto	€	5,682,059.00
4	Regione Lazio, Regione Sardegna	€	7,139,760.00
5	Regione Abruzzo, Regione Basilicata, Regione Marche, Regione Molise	€	4,291,004.00
6	Regione Campania, Regione Puglia	€	8,532,013.00
7	Regione Calabria, Regione Sicilia	€	9,698,174.00
8	Agenzia per la Coesione Territoriale, NUVEC e Ministero del Lavoro	€	11,304,620.00
9	Presidio di coordinamento Nazionale presso il Ministero dell'Economia e delle Finanze	€	11,899,600.00

Table I: Lots of the AA tender (Source: AGCM's decision #I796)

Geographical lots would arguably seem *prima facie* an odd design in a tender for consulting services. The nature of the services is not *per se* linked to a specific area nor does logistic play any role in delivering consulting service. Lots were arguably foreseen to reduce to the extent possible the risk of a winner-take-all outcome. This conjecture is supported by the adoption of "double award limit", whereby each bidder could be awarded at most 3 lots under the additional constraint that the cumulated value of the 3 lots did not exceed €27 million. For instance, any bidder could not be awarded lot 1, 8 and 9 whose total value would slightly exceed the €27-million threshold.

2.3 Award criterion

The award criterion was the Most Economically Advantageous Tender (MEAT) criterion. The maximum score associated with the technical offer was 70 points, while the maximum score for the financial offer amounted to 30 points. "Quality" of the proposal was to be evaluated by using criteria mainly concerning the methodology for problem-solving, flexibility of the working teams in adapting to varying circumstances, concreteness, suitability and customization to the specific nature of the tasks and know-how transfer.

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More relevant for the antitrust investigation was the *scoring rule* for assigning the financial score. The scoring rule is often referred to as the "kinked" scoring rule, where the kink is determined by (a function of) the average rebate over the highest admissible daily fees (i.e., reserve prices) for each professional profile, namely manager, senior consultant, and junior consultant. The reserve prices for the three different daily fees are shown in Table II.

Professional profile	**Reserve price (Euro/day – VAT not included)**
Manager	945.00
Senior consultant	739.00
Junior consultant	418.00

Table II: Maximum daily fee (reserve price) for each professional profile

The scoring rule worked as follows. Let N^* be the number of valid tenders, where a *valid* tender means that the latter complied with participation/eligibility requirements. If $N^* \geq 3$, then firm i's financial score, FS_i, was computed as follows:

$$FS_i = FS_{max} \cdot c_i,$$

where $FS_{max} = 30$. The firm-specific coefficient c_i was determined by using the following scoring rule:

$$c_i = \begin{cases} x \cdot \dfrac{R_i}{R_{av}}, & if\ R_i \leq R_{av} \\ x + (1-x) \cdot \dfrac{R_i - R_{av}}{R_{max} - R_{av}} & if\ R_i > R_{av}, \end{cases}$$

where $x = 0.9$, R_i was firm *i*'s submitted weighted average rebate, R_{av} was the average of all weighted submitted rebates, and R_{max} was the highest submitted weighted rebate. If, instead, $N^* < 3$, then $c_i = \frac{R_i}{R_{max}}$.

To grasp the way the scoring rule worked, let suppose that 4 valid tenders are submitted: $R_1 = .10$ (10%), $R_2 = .20$ (20%), $R_3 = .30$ (30%), $R_4 = .40$ (40%). Then $R_{av} = .25$ (25%) and $R_{max} = .40$ (40%). Figure 1 below illustrates how financial scores are computed.

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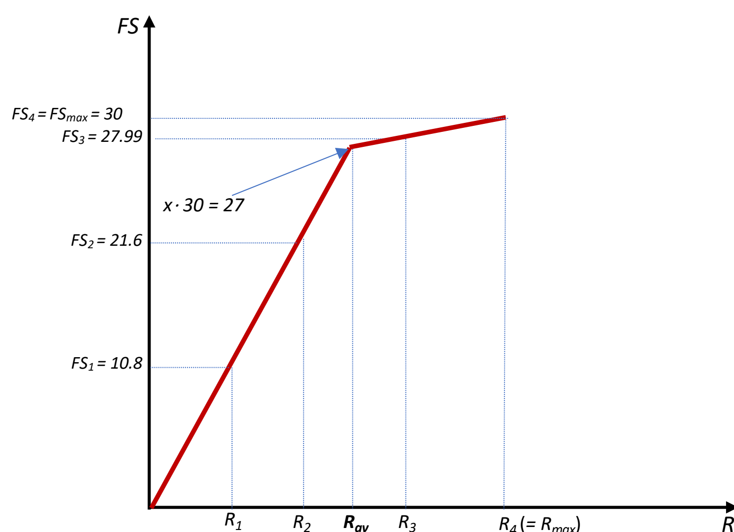

Figure 1: The "kinked" linear scoring rule with 4 bids

When the number of valid offers is only 2, using a scoring rule hinging on the average of the two bids would seem a bit of an artifact. Hence it appears more intuitive to award the maximum financial score to the highest rebate while assigning to the lower rebate a financial score exactly equal to the ratio between the latter and the highest rebate. This is exactly what was foreseen by the tender documents.

A further crucial element to understand both the arguments put forward by the AGCM and the counterarguments elaborated by the investigated firms is the "incompatibility" feature between the AA tender and the subsequent MA-CA tender.[10] The call for tender in the former case provided that any firm carrying out tasks for the Audit Authority in a given set of regions (lot) would have been precluded from serving the procuring entities in the same regions following the award of the MA-CA tender.[11] As bids for the MA-CA tender were to be submitted before the AA tender outcome was made public, the "incompatibility" feature would have become binding only *ex post*. That is, any bidder participating and being awarded one or more lots in both tenders would have found out whether or not it had to renounce to any lot in MA-CA tender.

3. Anomalies in the tender outcome

3.1 Endogenous evidence

All lots were awarded on the 5 May 2016. Table III shows the tender results, while Table IV shows the weighted average rebates offered by the "Big Four" for each lot.

[10] The MA-CA tender was launched by Consip on 21 December 2015.

[11] Lots design in the MA-CA tender did coincide with the one foreseen in the AA tender.

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Insert Table III about here

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7	Lot 8	Lot 9
KPMG	30%	30%	10%	14%	11%	14%	10%	14.999%	30%
EY	11.21%		31.42%	11.55%	13.25%	31.44%	31.51%	11.21%	
PwC		13.553%	13.186%	11.632%	32.274%				12.676%
Deloitte	10.064%	10.905%	13.207%	31.342%	12.098%	10.064%		31.342%	14.048%

Table IV: Big Four's bids in the AA tender (Source: AGCM's decision #I796)

Five out of nine lots (namely lot 1,4,7, 8, and 9) were awarded to KPMG, EY, and the temporary joint venture (TJV) comprising Deloitte & Touche and Meridiana (TJV Deloitte & Touche-Meridiana) — all firms but Meridiana belonging to the Big Four network. Besides PwC Advisory, which participated in the tender together with PwC (TJV PwC-PwC Advisory), the other firms carrying out consultancy activities in their respective networks (KPMG Advisory, Deloitte Consulting, and EYFBA) did not submit any offer.

A meticulous screening of the tender outcome led the AGCM to spot seemingly anomalous bidding patterns, which arose the suspicion of anti-competitive behavior: *i*) a chessboard-like bidding pattern; *ii*) two prevailing discount ranges; and *iii*) cover bidding.

Chessboard-like bidding pattern. The AGCM maintained that the alleged cartel's bids were conceived in such a way that the most substantial discounts presented by each cartel member — all ranging between 30% and 32% — never overlapped on all the nine lots. Although inconclusive *per se*, this pattern was compatible with some form of coordination. As Table II shows, in five out of nine lots (1,4,7,8 and 9), under the assumption of coordination among parties, the winner designated by the cartel — the one offering a discount above 30% — ended up being awarded the lot. In the other four cases, the designated winner lost, perhaps unexpectedly, to the more economically advantageous tenders submitted by competitors which were not part of the cartel. Thus, KPMG won lot 1 and 9, but lost lot 2; EY won lot 7, but lost lots 3 and 6; and TJV PwC-PwC Advisory did not win any lot, as they lost their "designated" lot 5. Finally, TJV Deloitte & Touche-Meridiana won both their allocated lots, namely 4 and 8.

Two prevailing discount ranges. A close inspection of Table III reveals that the coordinated bidding scheme also consisted in a peculiar financial bidding strategy, as all Big Four's submitted rebates over the reserve price(s) were positioned around two recurring, and particularly spaced out, percentage intervals. Indeed, all the firms belonging to the Big Four networks submitted for some

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lots more aggressive bids, with rebates ranging between 30% and 32% (without ever overlapping), whereas for other lots (where there was overlapping) less aggressive bids, with rebates ranging between 10% and 15%. This did appear as a blatant coincidence, as one would consider a rather implausible outcome that four bidders, allegedly competing against each other, would replicate exactly the same level of rebates on the lots they are interested in (30%-32%) and on the lots where they did seem to have any interest (10%-15%).

Cover bidding. Besides agreeing on which lots the cartel members would have submitted their best offers, the collusive mechanism was supported by the formulation of cover bids aimed at concealing the cartel by giving the impression of competition among the parties. Cover bidding turned out to be quite effective because the economic scoring mechanism. The formula used by the contracting authority for the award of the economic score is such that the increase in the economic score is linear in the submitted rebates. However, the proportionality is lower for rebates above the mean than for those below the mean[12]. This means that by using phony bids (i.e., rebates in the interval 10%-15%), the cartel allowed the designated winner to offer a lower rebate (and still be rewarded with a high financial score) than the one that would have been necessary should the designated winner have faced a potentially more aggressive outsider. Basically, the 10%-15% bid allowed the cartel to keep the average rebate sufficiently low to allow the designated winner to position itself just above the average rebate.

Each cartel member submitted a substantially equivalent technical offer and, consequently, obtained a very similar technical score on all the lots in which it participated but in lot 9[13]. Moreover, while the competitors outside of the cartel did not differentiate financial offers across different lots — or did so only marginally — the Big Four differentiated their rebates according to the symmetric "two-interval" scheme (30%-32% and 10%-15%). More specifically, the weighted average discounts offered by non-cartel firms were more aggressive than the cartel's (in some cases rebates were higher than 40%), with the only exception of one bidder (Cogea), which offered meager discounts on all lots.

According to the AGCM, the anomalies in the bidding patterns could only be "deciphered" by means of a collusive agreement among the Big Four to alter the outcome of the AA tender through the

[12] This reasoning is reflected in a document found in the EY offices that consists in a simulation of the economic assessment, assuming an aggressive offer (called "alpha"), an average offer of EY (20%), and two supporting offers of KPMG and PWC (10% and 8%). Thanks to the economic score formula, due to the effect of particularly low supporting offers, the economic score achieved by the EY simulated offer is less than three points than the maximum score attributed to the aggressive outsider alpha.

[13] This seems plausible as lot 9 was a contract specifically designed for the Ministry of Economy's Department in charge of the national supervision of all activities involved in the contracts.

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elimination of competition and the allocation of the different lots among themselves. A collusive arrangement mainly engineered by coordinating rebates on different lots could succeed even if the award criterion was the most economically advantageous tender criterion. Indeed, thanks to their expertise and past experience, involved parties were likely to be confident of being assigned very high technical scores on every lot, which would have allowed them to recover the possible gap in the economic score with respect to the most aggressive (that is, the highest) rebate in each lot. Therefore, while confident of obtaining a high technical score, the cartel's goal was to share the lots trying to win them "at a cost" of a 30-32% discount. To protect the collusive scheme against aggressive offers from potential competitors outside the cartel, the parties submitted particularly low supporting bids on the lots not allocated to them.

The envisaged mechanism would have perfectly worked according to the agreed allocation scheme hadn't two unexpected and unforeseeable factors arisen: The low score awarded to EY's technical proposal and the high score awarded to Lattanzio's technical proposal.

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7	Lot 8	Lot 9	Lot 10
KPMG	34.85%	42.2%	45.3%	45.3%	40.6%	47.3%	40.0%		47.6%	47.3%
EY	32.2%			51.5%	51.5%		36.6%	51.48%	51.48%	51.5%
PwC			48.0%	48.0%	48.0%		48.0%		48.0%	48.0%
Deloitte			52.5%	52.5%			56.1%			56.1%

Table V: Big Four's bids in the MA-CA tender (Source: AGCM's decision #I796)

The intrinsic oddity of the parties' behavior emerges even more when compared to that adopted in the MA-CA tender. As shown in Table V, the discounts submitted by the parties were much higher than those of the AA tender. Moreover, the Big Four's highest price reductions overlapped in several lots. Overall, one can safely maintain that in the MA-CA tender the investigated companies adopted different bidding strategies — some presented the same discount in all the lots (PwC), whereas others differentiated their offers (KPMG, EY, and Deloitte) — and the discounts were evenly distributed from a minimum of 32% up to over 55%, thus no prevailing discount ranges seems to have arisen. A tentative explanation is that the concerted practice in the AA tender broke up in the subsequent MA-CA tender, probably because of the unsettling results of the former that led the cartel participants not to replicate the concerted strategy previously adopted.

3.2 Exogenous Evidence

In addition to the collusive bidding strategy emerging from the screening of the AA tender results, a series of documents were seized at the Big Four' headquarters, providing an almost undisputable evidence of the contacts and meetings between KPMG, KPMG Advisory, PwC, PwC Advisory,

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Deloitte & Touche, Deloitte Consulting, EY, and EYFBA. Among the documents collected at the premises, were several email exchanges that took place between at the early stages of the market consultation and soon after the launch of the tender turned out to be crucial pieces of evidence. Parties sent messages in order decide to meet with each other to "open a table" and "share an action" with reference to the AA tender (referred to in the emails' subjects as "EU funding meeting"). During the meeting, which took place on 10 December 2014, and which involved both the consulting and the auditing firms belonging to the Big Four networks, the parties compared each other's positions in the market and "intentions" in the upcoming tender. Some later emails, instead, dated soon after the award of the lots, expressed the utter bafflement at the unexpected results and disruption of the bidding ring.

Furthermore, more documents were found in which it emerged that the Big Four had frequent contact opportunities within the meetings organized by the Italian Association of Auditors (Assirevi) in the timeframe close to the submission of bids. It should also be noted that all the firms belonging to the Big Four network used share a single department dealing with public tenders. Thus, the decision to participate in a tender was taken at the network level, considering the respective expertise and interests and possible conflict of interests between audit and consultancy activities.

Last but not least, the AGCM found a document at EY's premises titled "Preliminary simulations of the tender for assistance to the Audit Authority", which, during the inspection carried out by the *Guardia di Finanza*[14], was dated by EY between November and December 2014. In the document (reproduced in Table VI), alongside the nine lots and their value, there are two columns headed *Competence* and *Interest*, indicating for each lot the acronym of one of Big Four. Comparing these simulations with submitted bids, it emerges that the results of the column *Interest* match the outcome of the tender — considering as winning bids those with a discount over 30% — in six out of nine cases (lots 2 and 5 to 9).

[14] The *Guardia di Finanza* is a police force, under the authority of the Italian Ministry of Economy and Finance, with general jurisdiction over all economic and financial matters; it also contributes to the maintenance of order and public security and to military defense along national borders.

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Lot	Competence	Interest	Highest Discount
1	KPMG	DT	KPMG
2	KPMG	KPMG	KPMG
3	DT	KPMG	EY
4	EY	EY	DT
5	DT	PwC	PwC
6	EY	EY	EY
7	EY	EY	EY
8	PwC+DT	DT	DT
9	KPMG	KPMG	KPMG

Table VI: EY simulation of the AA tender (Source: AGCM's decision #I796)

3.3 The Big Four's counterarguments

The Big Four justified the alleged coordinated strategies by using 4 main arguments: 1. Geographical location of similar contracts; 2. the "award limit" provided for in the tender design; 3. lot-specific cost; 4. the incompatibility with the subsequent MA-CA tender. Overall, none of the justifications put forward by the partiers proved reliable as they were contradictory and illogical and represented at most an attempt to provide ex-post justifications for their conduct in the tender.

As to argument 1 (i.e., "past geographical locations") the ACGM maintained it was illogical and contradictory the Big Four belonged firms to global networks, with offices and projects widely spread throughout Italy. It should also be noted that some of the parties submitted winning offers in geographical areas where they had little presence, or no presence at all, and refrained from submitting "aggressive" offers in areas where they had a more tangible presence.[15]

As to argument 2 (i.e., the "award limit"), the tender rules foresaw that a bidder being ranked first on a number of lots higher than the award limit would be awarded the most valuable ones (subject to the additional constraint that the overall value had not to exceed 27 million Euros (as described in 2.2). Therefore, differentiating financial offers between "attractive" and "non-attractive" lots because of the award limit would not have been necessary for a profit-maximizing strategy.

Argument 3 hinged on the claim that the costs for providing the services required by the contract subject matter were lot-dependent. However, none of the economic undertakings provided any justification indicating a real difference in cost structure or other rational logic behind the bids with

[15] For example, KPMG presented a winning bid (30.0%) on lot 2, despite having only one consultant working in Bolzano, but presented an offer ineligible to win (14.0%) on lot 6, despite having eleven consultants in its Naples office and despite it being more than double the value of lot 2. Or even, EY presented a winning bid (31.4%) on lot 3, despite having no resources in Bologna, yet it offered a low discount (11.5%) on lot 4, even though, in Rome, it could have counted on fifteen resources having the professional profiles required by the AA tender.

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low discounts. It should also be noted that this difference, assuming it existed, could not have been so sizeable as to justify the submitted discounts differences. This logic becomes more irrefutable as the Big Four had (and still have) a widespread presence over the Italian territory and could have promptly expanded human capital capacity following unanticipated workloads. Indeed, documents collected during the inspection and containing a detailed analysis of the costs of the service provided either no references to lot-dependent costs, or the latter were only limited to a paltry 5% of the value of the contract. Instead, there were explicit references to additional professional profiles to ramp up capacity.

As to argument 4 (i.e., the "incompatibility with the MA-CA" tender), the meeting of 10 December was confirmed by the firms during the hearings. The firms also confirmed that they had gathered to discuss the incompatibility between the award of the AA tender and the subsequent MA-CA tender. However, the AGCM deemed the parties' statements unreliable since the emails did not include any references to the issue of incompatibility, but only to "strategies" and "alliances". It is also remarkable that, although all the parties had doubts on the issue of incompatibility, none of them, after the publication of the AA tender, had formulated any specific request for clarification on the specific matter to Consip[16]. This did confirm the conjecture that during the meeting the parties agreed on the allocation of the lots which gave rise to the simulation referred to in Table V.

To disprove the anti-competitive scenario PWC, Deloitte, and EY developed some counterfactual scenarios which hinging on the assumption that a different bidding pattern would have led to a less satisfactory outcome for the procuring agency, that is, the observed bidding pattern was in fact in the interest of the public administration.[17] As a matter of fact, the parties did fail to disprove that the collusive agreement virtually suppressed competition among themselves. They consistently offered discounts of between 30 and 32%, anticipated the absence of more aggressive offers from ring

[16] It should be noted that the *Consiglio di Stato* (the Italian highest administrative Court) had already discussed the issue of incompatibility on services offered by firms belonging to the same network. The *Consiglio* had specified that the impairment of the independence requirement must result from legal, financial, organizational, and managerial elements that attest the existence of a substantial link between controller and controlled. In the absence of these indicators, there is no evidence that there is a single center of interest between two separate legal entities which would allow an exchange of information.

[17] In particular, the parties proposed three different counterfactual scenarios. In the first scenario, the parties eliminated the alleged cover bids on all the lots to show that such bidding scheme would have determined a saving for Consip of "only" 700,000 euro. The second alternative scenario, which provided that each party to the cartel submitted, in each lot in which it participated, a discount equal to the highest discount submitted by a Big Four in that lot, would have led to the same outcome. Finally, the third scenario, which replaced the cover bids with the highest bid submitted by the Big Four, taking into consideration all the lots in which it participated, would have led instead to a minimal increase in cost for the contracting authority.

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members and were confident that the bidding mechanism would be able to neutralize potentially aggressive offers from firms outside. In their simulated scenarios, the parties disregarded the fact that the discounts were in fact part of the cartel agreement and, for that reason, certainly lower than those that would been observed in a market with an active cartel. The AGCM proved that by replacing the investigated firms' offers with a discount equal to that offered in the same lot by an averagely aggressive competitor with an awarded technical score comparable to that of the Big Four (i.e., Lattanzio) would have led to a saving for the procuring entity of more than 4.5 million euros as well as with a quality increase of around 10 points (out of 100).

4. The AGCM's decision and sanctions

The AGCM's investigation hinged on a logical argument whereby the Big Four's observed bidding pattern could not be rationalized without resorting to anticompetitive hypothesis (the "endogenous" evidence). At the same time, all seized pieces of evidence were consistent with the anticompetitive rationalization of the bidding pattern (the "exogenous" evidence). All the justifications set out by the Big Four did not provide a reasonable explanation to the bid rigging assumption. Therefore, the AGCM claimed that all the probative elements unquestionably demonstrated the existence of an unlawful agreement between the Big Four aimed at rigging the AA tender.

The accusation was to be attributed to all the parties to the proceedings regardless of each party's specific role in the cartel mechanism. The sole exception was Meridiana, about which the investigation did not bring to light striking evidence of participation in the collusive agreement. In particular, the AGCM found Deloitte Consulting, EYFBA, and KPMG Advisory - which, within their respective network, carry out the consulting activities and that did not take part in the AA tender although they were eligible to do so - to be part of the collusive agreement. According to the AGCM, the decision to participate in the AA tender was taken at the network level following the logic of profit maximization.

In light of the above, the AGCM maintained that the observed bidding pattern constituted an infringement of Article 101 of the Treaty on the Functioning of the European Union (TFEU). To fall within the scope of Article 101 of the TFEU, a concerted practice must have as its object the prevention, the restriction, or the distortion of competition within the underlying market. In this regard, the European Court of Justice ruled that certain forms of coordination between undertakings reveal a sufficient degree of harm to competition that examining their effects would be superfluous. Indeed, certain collusive behaviors, such as horizontal price-fixing, market sharing, or customer allocation agreements resulting from a cartel, have such a negative impact on the selling price, sold

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quantity, or quality of products and services that it may be deemed useless for the application of Article 101 to prove that such behaviors have a tangible effect on the market, which result in a misallocation of resources to the detriment of consumers[18].

In the Big Four case, the object of the concerted practices was found to be anti-competitive *per se*, since the major market players, which enjoyed a longer and deeper experience as well as greater economic capacity than other competitors in the same market, intentionally aimed at affecting the outcome of the tender through a mechanism of lots and discounts coordination.

It follows that to establish its unlawfulness, it would have been unnecessary to show it had any restrictive effects. Nevertheless, the AGCM found that the severe distortion of competition caused by the Big Four's coordinated practice did undermine the process of selecting the best contractor and caused the tender to be awarded on less favorable terms than under a truly competitive scenario.

Article 15, paragraph 1, of Italian Law No 287/90 requires the evaluation of the seriousness of any infringement. Importance should be given to the nature of the competition restriction and the role and market position of involved economic operators. The concerted practices in the Big Four case consisted of a secret horizontal agreement aimed at devising a mechanism to allocate five out nine lots among themselves, but in fact it did influence the outcome of the tender with respect to all nine lots. The distortion of competition was aggravated by the fact that the cartel members were the leading players, totaling a staggering 96% of the underlying market[19].

Fines were formulated by referring the "Guidelines on how to apply the criteria for quantifying monetary financial sanctions imposed by the Authority pursuant to Article 15, paragraph 1 of Law No 287/90" (hereinafter Guidelines[20]). According to the Guidelines, the basic amount of the fine is calculated by multiplying the lots value directly or indirectly derived from the unlawful practice by a percentage of between 15% and 30%, according to the gravity of the infringement and the duration of each economic operator's participation in the infringement[21]. In the case at hand, the lot value was calculated as the value of the bid made by the firm to which the lot had been awarded by the ring,

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[18] *Dole Food and Dole Fresh Fruit Europe v Commission*, C-286/13P (Court of Justice Mar. 19, 2015); *CB v. Commission*, C-67/13, (Court of Justice Sept. 11, 2014).

[19] With specific reference to the technical assistance services to the Audit Authority Deloitte & Touche estimated that, in Italy, out of 17 tenders awarded by the PA at central and regional level in the period 2008-2014, the Ernst & Young network had a share of 55%, the KPMG network of 24%, the Deloitte network of 9%, the PwC network of 7%, and other competitors of 4%.

[20] The original title in Italian runs as "*Linee Guida sulla modalità di applicazione dei criteri di quantificazione delle sanzioni amministrative pecuniarie irrogate dall'Autorità in applicazione dell'articolo 15, comma 1, della legge n. 287/90"*.

[21] See point 7 and 11 of the Guidelines.

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according to the identified allocation scheme. Since the behavior led to a severe breach of Article 101 TFEU, the initial lot values had been multiplied by 30% for all participants. Furthermore, the Guidelines states that to confer to the sanctions the necessary deterrent effect, with respect to the most severe restrictions of competition, the AGCM shall consider adding to the basic amount of the fine an additional "entry fee" ranging between 15% and 25%[22]. In this context, the sale value had been multiplied by 25%.

Finally, the Guidelines provide that the basic amount of the fine may be reduced to take into account specific attenuating circumstances. In this case, the AGCM took into account the adoption by all parties of specific antitrust compliance programs[23]. The AGCM found that only the EY, Deloitte, and PwC policies were in line with the provisions of the Guidelines; therefore, the AGCM granted them a reduction of 5% of the fine. The AGCM did not recognize any attenuating circumstance to KPMG. Given that the undertakings involved in the proceedings were part of four global networks, the ICA decided to impose a single fine on each network. As shown in Table VII, the AGCM levied administrative fines amounting to a total of more than 23 million euros divided as follows: 7,659,966 euro to KPMG and KPMG Advisory, 5,955,011 euro to Deloitte & Touche and Deloitte Consulting, 8,563,021 euro to EY and EYFBA, and 1,516,218 to PwC and PwC Advisory.

	Lot	Lot Value	Total Value	Gravity Coefficient	Entry Fee	Basic Amount	Compliance Discount	Total Fine
KPMG	1 2 9	2,786,264 2,811,267 8,329,680	13,927,211	30%	25%	7,659,966	0%	7,659,966
Deloitte	4 8	4,902,000 7,761,500	11,397,150 (*)	30%	25%	6,268,433	5%	5,955,011
PwC	5	2,901,852	2,901,852	30%	25%	1,596,019	5%	1,516,218
EY	3 6 7	3,896,750 5,849,522 6,642,286	16,388,558	30%	25%	9,013,707	5%	8,563,022
(*) Deloitte participated in TJV with Meridiana. The total value of sales is considered to be 90% (share in the TJV) of the value awarded.								23,694,216

Table VII: Calculation of the fines (Source: AGCM's decision #I796)

5. Concluding remarks

This case study shows how tender design, though it can help to deter collusion, must be complemented by the constant monitoring of bidding activities and ex-post screening of tender results to detect bid-rigging. Indeed, the AA tender was devised so that, at least in principle, it would have

[22] See point 17 of the Guidelines. The definition "entry fee" appears also in the Italian text of the Guidelines. Although sounding slightly as a misnomer, the purpose is clear, that is, to add an additional amount to the basic sanction value according to the gravity of the infringement to "raise the deterrence effect" (translated from the Italian text).

[23] See point 23 of the Guidelines.

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made it difficult to reach and maintain a collusive agreement. First, the extent of the commercial opportunity and the tender specifications encouraged broad participation, which favored competition from other subjects. Moreover, because of the heterogeneity of the Big Four and the lots, it would have been extremely complex to find a coordination mechanism. Additionally, the high value of the lots and the long duration of the procurement contracts provided high incentives to deviate from a potential agreement. Finally, as the tender was a simultaneous award, there was no possibility of punishment in the event of deviation. Despite all these anti-collusion characteristics, the Big Four were still able to put in place a sophisticated collusive mechanism that the AGCM uncovered through a careful analysis of both “endogenous” and “exogenous” proofs of evidence.

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LOT 1	€ 3,980,375	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,565	27,690	96,255	30.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	10,231	80,231	10.1%
3	Reconta Ernst & Young S.p.A.	58,521	11,397	69,918	11.2%
4	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,043	30,000	75,043	41.5%
5	TJV Ria Grant Thornton-Ria Research Innovation Analysis S.r.l	28,086	29,696	57,782	40.0%

LOT 2	€ 4,016,115	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,967	27,455	96,422	30.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	10,617	80,617	10.9%
3	TJV PricewaterhouseCoopers Advisory S.p.A.-PricewaterhouseCoopers S.p.A.	67,711	13,195	80,906	13.6%
4	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,679	29,764	75,443	41.5%
5	Lattanzio Advisory S.p.A.	67,128	30,000	97,128	42.7%

LOT 3	€ 5,682,059	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,951	10,763	79,714	10.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	14,216	84,216	13.2%
3	Reconta Ernst & Young S.p.A.	58,515	28,079	86,594	31.4%
4	TJV PricewaterhouseCoopers Advisory S.p.A.-PricewaterhouseCoopers S.p.A.	67,675	14,193	81,868	13.2%
5	TJV Ria Grant Thornton-Ria Research Innovation Analysis S.r.l	27,708	29,542	57,250	40.0%
6	Lattanzio Advisory S.p.A.	67,083	30,000	97,083	42.7%

LOT 4	€ 7,139,760	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,532	13,010	81,542	14.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	27,282	97,282	31.3%
3	Reconta Ernst & Young S.p.A.	58,348	10,733	69,081	11.5%
4	TJV PricewaterhouseCoopers Advisory S.p.A.-PricewaterhouseCoopers S.p.A.	67,731	10,809	78,540	11.6%
5	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,540	28,538	74,078	41.5%
6	TJV Ria Grant Thornton-Ria Research Innovation Analysis S.r.l	27,839	28,351	56,190	40.0%
7	IT-AUDIT S.c.a.r.l. (Archidata, Consedin, Exit one, Gruppo clas, Sercam srl)	58,837	30,000	88,837	53.3%

LOT 5	€ 4,291,004	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,951	11,652	80,603	11.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	12,816	82,816	12.1%
3	Reconta Ernst & Young S.p.A.	68,515	14,036	72,551	13.2%
4	TJV PricewaterhouseCoopers Advisory S.p.A.-PricewaterhouseCoopers S.p.A.	67,675	28,201	95,876	32.4%
5	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,846	29,794	75,640	41.5%
6	Lattanzio Advisory S.p.A.	67,083	30,000	97,083	42.7%

LOT 6	€ 8,532,013	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,565	12,227	80,792	14.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	8,789	78,789	10.1%
3	Reconta Ernst & Young S.p.A.	58,521	27,089	85,610	31.4%
4	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,043	28,810	73,853	41.5%
5	IT-AUDIT S.c.a.r.l. (Archidata, Consedin, Exit one, Gruppo clas, Sercam srl)	58,826	30,000	88,826	48.5%
6	TJV Ria Grant Thornton-Ria Research Innovation Analysis S.r.l	28,086	28,552	56,638	40.0%

LOT 7	€ 9,698,174	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	70,000	9,852	79,852	10.0%
2	Reconta Ernst & Young S.p.A.	59,708	27,873	87,581	31.5%
3	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,779	30,000	75,779	41.5%
4	Cogea S.r.l.	66,717	13,793	80,510	14.0%
5	TJV Ria Grant Thornton-Ria Research Innovation Analysis S.r.l	28,212	29,678	57,890	40.0%

LOT 8	€ 11,304,620	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	68,936	15,907	84,843	15.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	70,000	28,024	98,024	31.3%
3	Reconta Ernst & Young S.p.A.	58,256	11,888	70,144	11.2%
4	Cogea S.r.l.	65,561	11,666	77,227	11.0%
5	TJV IZI S.p.A.-Baker Tilly Revisa S.p.A-MBS S.r.l.-Selene Audit S.r.l.	45,495	29,795	75,290	41.5%
6	Lattanzio Advisory S.p.A.	67,040	30,000	97,040	42.7%

LOT 9	€ 11,899,600	Technical Score	Financial Score	Total Score	Weighted Average Rebate
1	KPMG S.p.A.	70,000	30,000	100,000	30.0%
2	TJV Deloitte & Touche S.p.A.-Meridiana Italia S.r.l.	65,682	22,075	87,757	14.0%
3	TJV PricewaterhouseCoopers Advisory S.p.A.-PricewaterhouseCoopers S.p.A.	60,748	19,919	80,667	12.7%
4	Cogea S.r.l.	57,400	18,858	76,258	12.0%

Table III: AA tender results (Source: AGCM's decision #I796)

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