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Public Procurement in the EU. Another explorative study.

by

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1. Introduction.

As often stated in publications that relates to public procurement in the EU this field of study is of major importance as we are talking ‘big money’: a percentage of GDP around 16, Commission (2011). Data that relates to this field can be found in Tenders Electronic Daily provided by the Commission and compared to earlier studies of these data, see e.g. la Cour & Milhøj (2013) or la Cour, Milhøj and Ølykke (2015), the access to the data has become somewhat easier over the last couple of years.

The idea of the public procurement directives is to increase the competition to increase efficiency and welfare, Commission (2011), by enlarging the market when a tender has a sufficient large size. The exact size depends on the type of the tender. Below we will describe some features that concerns competition based on the measures made available to researchers through Tenders Electronic Daily¹.

There is no perfect measure of competition available in Tenders Electronic Daily but in most cases we know the number of bids for a contract and even though we are aware that such a number at most can be considered necessary but not sufficient to judge the degree of competition in a field, we believe that valuable knowledge can be derived by studying the number of bids. Or as we have chosen to do in the present paper: to study cases characterized by a lack of competition when measured by the number of bids for a contract.

The paper will continue with some more information on the data base in section 2. In section 3 we start our descriptive analysis by provide the broad

¹ We would like to thank the Commission for making the data available to us.

picture. In section 4 we try to dig a little deeper and finally, section 5 contains some tentative conclusions.

2. The data

As mentioned above we use the data from Tenders Electronic Daily (TED) in the present study. TED contains many different types of text documents from, Contract Notices (CN), Contract Awards (CA) over transparency notices to Contract Award Notices (CAN). Here we will focus on the second and the last types, the contract awards and the contract award notices. In their original form the CANs are text documents but information collected electronically is now available from two different sources: The EU commission and also a group of researchers who have constructed a data base called OpenTED (See the WEB-page reference in the list of references). Each CAN may have more than one award and in both of the electronic data bases each record will identify a single award and hence each CAN may be present more than once in the data set. Many of the variables in the two data bases are the same but there are exceptions. Only the data from the EU commission contains an identifier variable for a framework agreement and for dynamic purchasing systems. Also the data from the commission includes information that goes back to 2009 while the OpenTED starts in 2012 – actually at the end of January 2012. Therefore one could argue for just applying the data from the commission but we have discovered some problems with a couple of CANs missing around the turn of each year so in the end we decided to use the OpenTED as our main source of information. Due to 2015 at the point of writing still being incomplete we decided to stop our sample at the end of 2014. The next section will show some initial figures on the number of CANs and CA's.

Our data are delimited to contain CANs from all EU and EEA countries hence Norway, Liechtenstein and Iceland are added to the sample of the 28 EU countries. Switzerland is not an EEA country and therefore not part of our sample. The kind of variables we have access to are: identity and type of the

procuring authority, identity of the winners, the number of bids, the directive behind the CAN, the type of work, the type of procedure, the award criteria, the location of the unit of the CAN and the industry of the CAN classified by the EU CPV codes. Also a broader classification of type of field can be found. We do not have information on all these variables for all CANs.

Table 1: The number of CAN's and CA's for our sample period.

Year	2012	2013	2014
CAN's	157499	160356	163245
CAN in OpenTED data	141303	159521	161272
CANs in our study: (Only EU and EEA countries and in OpenTED)	139946	157806	159237
CAs in our study	430665	482358	503589
CA's with missing number of bids	78300 (18.2%)	88070 (18.3%)	93171 (18.5%)
CA's with number of bids equal to zero	1366 (0.3%)	1073 (0.2%)	600 (0.1%)
CA's with numbers of bids equal to 1	88097 (20.5%)	98681 (20.5%)	103430 (20.5%)
CA's with number of bids larger than 1	262902 (61.1%)	294534 (61.1%)	306388 (60.8%)

Note: Remember that not all of 2012 are covered in OpenTed. OpenTed starts on 31 January 2012.

3. The broad picture.

In table 1, we will start by providing the number of CANs for the years 2012, 2013 and 2014. These numbers are extracted directly from the on-line version of TED.

In OpenTED only documents that obey the standard structure of the documents with well-defined sections are included. In online TED there are some documents that do not obey to this structure (mainly related to EuropeAid – but not exclusively). We restrict our study to be based on the

documents in OpenTED only. Also we focus on documents for EU and EEA countries. Finally it is worth noticing that OpenTED contains no documents with a publication date prior to 31 January 2012. The first document in OpenTED has the number 31450 and belongs to 31 January 2012. We have not tried to include documents with a number smaller than 31450. The total number of CANs over the sample period is 481100 and the total number of CAs over the sample period is 1416612. It is the CAs that will provide our unit of analysis as we have information of number of bids and hence some indication of the level of competition at this level. The overall impression from table 1 is a small increase in the number of CANs. Also the number of CAs increases over the years.

Next we turn our interest toward the information that concerns the competition for each contract award. The European Commission has chosen to focus on the average number of bids per contract and states that in general the competition seems satisfactory from the point of view of the Commission if the average is high. They observe, however, that in almost 20% of the cases only 1 bid was noticed, see Commission (2011). It is, however, worth noticing that the share of CAs with just 1 bid and the share of CAs with more than 1 bid seem to be very stable. Also it is worth noticing that the share of CAs with just one bid is fairly high i.e. around 20% in each of the years.

When taking a closer look at the CAs that signals no competition we first observe that only a limited number of CAs have 0 bids. We will disregard these all together later in our study as this must imply that no winner was found. At the moment we keep them as a separate category in the tables.

The second thing to be mentioned before digging a bit deeper into the data concerns the distribution of bid types over the countries. For this purpose we collect all the years into a single sample and choose some of the countries that show patterns of interest to be displayed in table 2. There are large differences amongst the countries and the purpose of table 2 is to give some indication of this without going into too many details.

Table 2: Distribution of number of bid categories by country.

Country	Missing	0 bids	1 bid	More than 1 bid	Total
France (FR)	38.3%	0.2%	9.6%	52.0%	351916
Poland (PL)	3.5%	0.0%	44.4%	52.1%	358727
Germany (DE)	17.2%	0.4%	10.1%	72.3%	102629
UK	18.0%	0.1%	4.6%	77.4%	94307
Italy (IT)	30.4%	0.7%	19.2%	49.7%	57253
Spain (ES)	42.4%	0.2%	10.7%	46.8%	52807
Romania (RO)	0.1%	0.0%	18.8%	81.1%	61842
Bulgaria (BG)	1.8%	0.0%	23.4%	74.8%	32069
Denmark (DK)	29.4%	0.0%	5.7%	65.0%	15648
Total - also countries not in the table	18.3%	0.2%	20.5%	61.0%	1416612

As in total we have 31 countries in our sample we have chosen not to include all countries in the table. The countries selected for table 2 are the larger countries in terms of number of CA's and Denmark. If focusing on the column showing the percentage for a country in case of just 1 bid we see quite large differences. In case of 1 bid there seem to be groups of countries around different levels. Countries like Denmark, Germany, Spain, Finland, France, Ireland, Iceland, Liechtenstein, Luxembourg, the Netherlands, Norway, Portugal, Sweden and the UK have percentages around 10 and below, while Austria, Belgium, Czech Republic, Estonia, Greece, Italy, Lithuania, Latvia, Malta, Romania, Slovenia and Slovakia have between 13 and 16%. A few countries stand out from the rest with very high percentages of contracts with just 1 bid: Croatia, Hungary and especially Poland. For Poland the combination of a very high 1-bid percentage of 44.4 and a very large number of contract awards points towards a case that deserves more attention later on.

Next we turn to the directives that have been used for the document. In table 3 we show the distribution of classes of bids across directives.

Table 3: Distribution of bids by directive.

	missing	0	1	more than 1	total
2004/17	24.1%	0.1%	18.3%	57.6%	44719
2004/18	18.1%	0.2%	20.5%	61.1%	1367665
2009/81	20.7%	0.2%	27.9%	51.2%	4228
Total	259541	3039	290208	863824	1416612

Note: 2004/17 is the service utility directive; 2004/18 is the public purchase directive and 2009/81 is the defense directive.

A test for similar distributions clearly reject this hypothesis supporting the visual impression from the table.

A cross tabulation of bid distribution against the type of contract shows the results provided in table 4:

Table 4: Distribution of bids by contract type.

	missing	0	1	more than 1	total
Services	18.4%	0.2%	18.7%	62.7%	489137
Supplies	17.0%	0.2%	24.3%	58.5%	781512
Works	25.4%	0.3%	5.8%	68.6%	145963
Total	259541	3039	290208	863824	1416612

The general picture from table 4 is that the one bid case is most prevalent for the Supplies.

A cross tabulation of bid distribution against contract authority type is provided in table 5. The highest percentages of more than 1 bid is seen for 'National or Federal Agency/Office' and the 'European Institution/Agency or International Organisation' category while the highest percentages for 1-bid cases are seen for 'Body governed by public law' and 'other'.

Table 5: Distribution of bids by contract authority type.

	missing	0	1	more than 1	total
Ministry or any other national or federal authority	14.0%	0.3%	20.9%	64.8%	119505
Regional or local authority	19.8%	0.2%	14.1%	65.9%	310585
Utilities	24.0%	0.1%	18.3%	57.6%	44774
European Institution/Agency or International Organisation	5.8%	0.0%	18.5%	75.7%	6612
Body governed by public law	12.4%	0.2%	26.0%	61.4%	447210
Other	14.8%	0.1%	26.2%	58.9%	294788
National or federal Agency/Office	9.1%	0.5%	11.4%	79.1%	24890
Regional or local Agency/Office	25.0%	0.3%	12.4%	62.3%	30449
Not specified	44.2%	0.6%	4.1%	7.4%	137799
Total	259541	3039	290208	863824	1416612

Table 6: Distribution of bids by procedure.

	missing	0	1	more than 1	total
Open procedure	17.4%	0.2%	20.4%	62.0%	1212264
Restricted procedure	17.3%	0.1%	6.8%	75.8%	64859
Accelerated restricted procedure	8.2%	0.4%	24.6%	66.8%	5300
Negotiated procedure	28.4%	0.2%	11.8%	59.7%	40163
Accelerated negotiated procedure	39.8%	0.7%	29.5%	29.9%	3010
Competitive dialogue	17.1%	0.0%	9.9%	72.9%	2206
Negotiated without a call for competition	26.0%	0.1%	56.0%	17.9%	34648
Award of contract without prior publication of a contract notice	25.4%	0.1%	23.0%	51.6%	48672
Not specified	55.9%	4.9%	6.2%	33.0%	5490
Total	259541	3039	290208	863824	1416612

In table 6 we see that for the most frequently used procedure, the open procedure, around 20% of the CAs have only 1 bid.

In table 7 the education sector seems to have a special distribution with many contracts that have received just 1 bid. Construction and real estate is the industry with the smallest share of 1-bid contract awards.

Table 7: Distribution of bids by *selected* 2 digit CPV codes.

	missing	0	1	more than 1	total
Agriculture and Food	17.8%	0.2%	16.9%	65.2%	92203
Computer and related services	16.0%	0.2%	20.6%	63.2%	68934
Construction and real estate	22.2%	0.2%	7.4%	70.2%	254167
Education	12.0%	0.4%	41.1%	46.5%	44336
Energy and related services	18.6%	0.3%	20.8%	60.3%	27289
Environment and sanitation	17.3%	0.2%	13.2%	69.4%	62956
Financial and related services	18.9%	0.3%	19.9%	60.9%	30399
Health and social work services	19.5%	0.2%	21.1%	59.3%	28201
Other	17.1%	0.2%	25.5%	57.2%	711728
Research and development	13.5%	0.2%	15.5%	70.7%	5716
Transport and related services	22.5%	0.4%	16.6%	60.4%	90683
Total	259541	3039	290208	863824	1416612

Note: The selection of 2 digit CPV code is the one found when clicking on the first web page of the online version of TED.

4. Digging deeper.

From the overview tables in section 3 we now turn our attention to the CAs with just 1 bid in an attempt to characterize such contract awards even further.

4.1 One-bid all countries.

In this section we will focus on just two characteristics of the 1-bid CAs. First, in table 8 we look at the distribution of 2 digit CPVs across countries. In this table we show 2 digit CPV where at least one of the selected countries (the same selection as in table 2) has a percentage of at least 5. All the selected

countries have percentages above 5 in 2 digit CPV 33 (Medical equipments, pharmaceuticals and personal care products) but even within the CPV the percentages for each country vary quite a lot. The largest percentage is observed for Poland with Romania closely after. Countries like the UK , Denmark and France have much lower percentages. For the rest of the CPVs often only one of two of the countries show values of above 5%. Some of these ‘single case’, though show quite large percentages (CVP 34 for Germany, CPV 60 for the UK, CPV 66 for IT and the UK, CPV 80 for Poland, CPV 85 for the UK and CPV 90 for Denmark).

Table 8: Distribution of 2 digit CPV industry by country. Percentage points by column.

CPV	BG	DE	DK	ES	FR	IT	PL	RO	UK	other
33	44.51	10.53	24.72	19.68	12.55	40.64	62.84	52.48	8.36	25.61
34	4.28	13.98	5.53	4.42	6.32	4.01	1.00	2.58	2.42	3.82
38	1.88	7.36	6.21	4.22	1.68	3.23	3.26	2.11	4.46	5.78
50	6.50	2.21	1.58	7.03	5.17	3.74	1.76	5.64	4.30	4.25
60	2.03	5.03	1.81	7.35	5.79	2.52	0.45	0.87	17.09	2.10
66	1.37	0.53	5.98	1.87	3.77	12.27	0.99	1.34	9.99	2.10
79	4.50	1.84	3.84	4.96	3.63	1.84	1.23	2.60	6.06	3.94
80	0.79	1.43	1.58	0.49	4.27	1.14	9.47	0.25	2.81	2.58
85	1.91	1.39	1.02	1.73	1.51	4.50	1.78	2.32	10.61	2.15
90	2.63	3.99	12.53	3.85	5.27	5.73	1.81	2.42	2.11	3.05
Other	29.61	51.72	35.21	44.40	50.04	20.40	15.43	27.40	31.79	44.62
Total	7497	10387	886	5662	33645	11004	159339	11634	4306	45848

Notes: 33- Medical equipments, pharmaceuticals and personal care products; 34- Transport equipment and auxiliary products to transportation; 38- Laboratory, optical and precision equipments (excl. glasses); 50- Repair and maintenance services; 60- Transport services (excl. Waste transport); 66- Financial and insurance services; 79- Business services: law, marketing, consulting, recruitment, printing and security; 80- Education and training services; 85- Health and social work services; 90- Sewage, refuse, cleaning and environmental services.

In table 9 we study the distribution of one-bid contracts across selected countries (same as in table 2) and authority type. In table 9 we notice that authority types ‘regional or local authority’ (3), ‘body governed by public law’ (6) or ‘other’ (8) for many countries hold large percentages. ‘Utilities’ (4) and

‘European Institution/Agency or International Organisation’ (5) hold quite low percentages as do ‘National or federal Agency/Office’ (N) and ‘Regional or local Agency/Office’(R).

.Table 9: Distribution of one-bid contracts across selected countries and authority type. Percentage points by row.

	1	3	4	5	6	8	N	R	Z
BG	17.30	11.00	6.16	0.01	60.68	3.40	1.37	0.05	0.01
DE	10.61	34.05	2.49	0.47	25.86	22.43	2.38	0.62	1.09
DK	12.87	61.63	3.16	1.02	13.66	4.18	0.11	2.71	0.68
ES	7.29	41.33	9.89	1.20	14.96	18.30	0.19	5.25	1.59
FR	6.05	30.42	1.29	0.10	19.87	13.18	0.33	0.59	28.17
IT	4.71	38.35	7.70	1.16	25.93	16.34	0.21	4.15	1.45
PL	4.00	7.30	1.67	0.01	49.57	35.62	0.37	0.70	0.76
RO	32.26	10.28	7.60	0.09	13.15	35.53	0.70	0.38	0.01
UK	11.15	47.12	1.30	0.46	30.26	5.43	0.88	2.44	0.95
other	19.41	15.76	4.43	1.93	36.45	13.47	3.58	3.20	1.78
Total	24988	43790	8213	1220	116277	77187	2842	3777	11914

Note: Codes in the Column headings are TED codes. Cells with a grey shade have percentages larger than 15. No shading in the ‘other’ row.

There are quite a few other variables that may deserve attention in this section but we have chosen to limit out preliminary study to the characteristics covered by the variables of table 8 and 9.

4.2 One-bid, Poland.

Finally, we will focus briefly on the one-bid contracts of Poland because of the very large number (and share) of contracts for this country.

In table 10 we show the distribution of selected 2 digit CPV codes against the procedure types. We observe a very large share of 1-bid cases for the combinations: ‘Medical equipments, pharmaceuticals and personal care products’ (33) and ‘Laboratory, optical and precision equipments (excl. glasses)’ (38) versus open procedure. Another combination that stands out is ‘Business services: law, marketing, consulting, recruitment, printing and

security' (79) with a quite low share of open procedure cases and a somewhat larger share of restricted procedures compared to the other CPVs.

Table 10: Distribution of selected 2 digit CVP codes against procedure type (TED definitions) for Poland.

	1	2	3	4	6	C	T	V	Z
33	99.38	0.12	0.16	0.01	0.02	0.00	0.27	0.03	0.00
34	88.39	5.08	3.83	0.19	0.00	0.00	1.88	0.63	0.00
38	98.44	0.13	0.21	0.10	0.00	0.00	0.83	0.29	0.00
50	87.29	1.67	1.21	0.78	0.07	0.04	4.67	4.27	0.00
60	90.25	1.67	0.42	1.25	0.00	0.00	3.48	2.92	0.00
66	92.23	2.80	0.83	1.15	0.06	0.13	2.36	0.45	0.00
79	58.02	22.92	0.97	0.36	0.31	0.05	10.34	7.03	0.00
80	82.32	0.09	1.84	0.04	0.91	0.00	0.94	13.85	0.00
85	87.50	0.18	0.14	8.02	0.00	0.00	3.00	1.17	0.00
90	87.08	1.11	0.10	0.38	0.56	0.00	5.56	5.21	0.00
Other	81.23	2.64	0.37	0.74	1.12	0.08	7.81	5.98	0.02
Total	149074	1464	671	502	462	23	3051	4087	5

Notes: 33- Medical equipments, pharmaceuticals and personal care products; 34- Transport equipment and auxiliary products to transportation; 38- Laboratory, optical and precision equipments (excl. glasses); 50- Repair and maintenance services; 60- Transport services (excl. Waste transport); 66- Financial and insurance services; 79- Business services: law, marketing, consulting, recruitment, printing and security; 80- Education and training services; 85- Health and social work services; 90- Sewage, refuse, cleaning and environmental services. For the TED codes for procedure, please see first column in table 11 below.

Table 11: Distribution of procedure type by contract type.

Procedure type	SERVICES	SUPPLIES	WORKS
1 Open procedure	21.56	78.05	0.39
2 Restricted procedure	76.16	22.54	1.30
3 Accelerated restricted procedure	57.53	41.88	0.60
4 Negotiated procedure	85.46	11.75	2.79
6 Accelerated negotiated procedure	91.77	6.06	2.16
C Competitive dialogue	56.52	30.43	13.04
T Negotiated without a call for comp.	73.52	23.34	3.15
V Award without prior contract notice	84.29	12.06	3.65
Z Not specified	100.00	0.00	0.00
Total	40199	118261	879

In table 11 the distribution of procedure type across contract type is found. The combination of open procedure versus Supplies is a very frequent one as are the combinations Negotiated procedure, Accelerated negotiated procedure and Award without a prior notice against Services.

5. Conclusion.

We have in this study chosen to focus on contracts that have a potential to be classified as ‘lack’ of ‘competition’ contracts due to them having received only one bid. Our descriptive approach has demonstrated that there are large variations in frequencies of one-bid contracts when it comes to countries, type of authority, CPV industries and type of procedure. Clearly this is a field that deserves more attention in future research.

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