UNIVERSITY OF GOTHENBURG

FROM ÅLAND TO ANKARA: EUROPEAN QUALITY OF GOVERNMENT INDEX

2013 Data, Sensitivity Analysis and Final results

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ABSTRACT

This paper presents the latest version of the *European Quality of Government Index* ('EQI'). The data builds on a previously published data from 2010 (Charron, Lapuente and Rothstein 2013; Charron, Dijkstra and Lapuente 2013). Based on the largest regionally-focused survey to date, collected in the spring of 2013, the EQI 2013 is draws on over 84,000 respondents in 212 NUTS 1 and NUTS 2 regions in 24 countries. Together with national estimates from the *World Bank Governance Indicators* (Kaufmann, Kraay and Mastruzzi 2009), we report data on Quality of Government ('QoG') for all EU 28 countries, Turkey and Serbia, for a total of 236 political units. In addition, we present survey data for 6 regions in Ukraine. The QoG questions are aimed at capturing average citizens' perceptions and experiences with *corruption*, and the extent to which they rate their public services as *impartial* and of good *quality*.

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Introduction

This paper presents the latest version of the *European Quality of Government Index* ('EQI'). The data builds on a previously published data from 2010 (Charron, Lapuente and Rothstein 2013; Charron, Dijkstra and Lapuente 2013)[1]. Based on the largest regionally-focused survey to date, collected in the spring of 2013, the EQI 2013 is draws on over 84,000 respondents in 212 NUTS 1 and NUTS 2 regions in 24 countries[2]. Together with national estimates from the *World Bank Governance Indicators* (Kaufmann, Kraay and Mastruzzi 2009), we report data on Quality of Government ('QoG') for all EU 28 countries, Turkey and Serbia, for a total of 236 political units[3]. In addition, we present survey data for 6 regions in Ukraine. The QoG questions are aimed at capturing average citizens' perceptions and experiences with *corruption*, and the extent to which they rate their public services as *impartial* and of good *quality*.

The EQI data is intended to provide scholars and policy makers with a more nuanced metric when comparing governance across political units in Europe and is the first to provide comparable QoG data that can be used to compare regions within and across countries. The 2013 data follows closely the method used to build the EQI in 2010, which has been published in several top journals (see Charron and Lapuente 2013 and Charron, Dijkstra and Lapunete 2013). The regional level data is comprised of 16 QoG-focused questions from our large citizen-based survey, which are aggregated to the regional level in each country. This report outlines the method of aggregation, weighting of variables, and the combination with national level QoG data. We present all regional and national level data used in the index so that scholars can replicate the data if they so choose, or use individual indicators that more suit their needs. For example, those interested in a particular public sector area, such as health care, education or elections, can reference individual question or aggregated indicators regionally. In addition, corruption perception and experiences are distinguished.

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[1] Data was originally funded by the EU Commission (REGIO) and published in a report by Charron, Lapuente and Rothstein (2010). Report can be found here: http://nicholascharron.wordpress.com/current-projects/regional-qog-in-the-european-union/

[2] NUTS stands for 'Nomenclature of territorial units for statistics' and more can be read about this at: http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction
Kosovo is included, and because it is technically still a region in Serbia according to the EU, it is coded as such here as well.

[3] The 2013 round of survey data and research was funded by the EU Commission via ANTICORP, a large collaborative research group of scholars across Europe. For more information on ANTICORP and its research, see: http://anticorrp.eu/ .

A thorough sensitivity test was performed on the data; whereby we 're-build' the EQI using alternative methods of weighting, aggregation and standardization of the data along with removing several demographic groups, such as men, certain income and education groups and people of various ages to test whether the data is sensitive or robust to certain changes. We summarize the findings of the sensitivity analysis here and provide some of the highlights in the appendix. While we provide an overview of the method and results, the information and analysis found here is far from exhaustive. For those interested, a much more thorough discussion of the method to build the EQI and external correlates of the index can be found in Charron (2013)[4]. This summary paper is organized as follows:

1. Unit of analysis

2. Discussion of the 2013 survey, summary of regional level results

3. Building and presenting the EQI 2013 and comparisons with EQI 2010, and making retroactive changes based on sample expansion, variation within countries.

4. Sensitivity analysis

5. Conclusion

Appendix 1-4: complete list of units and final EQI figures, pairwise correlations of indicators, confidence intervals, and full list of questions from the survey.

In addition to question specifically focused on regional QoG that are used to build the EQI 2013, there are several other questions in the survey that might be of scholarly interest, such as social trust, meritocracy perceptions, political ideology, and the extent to which corruption impacts voting for certain political parties[5]. The full data can be downloaded freely for both 2010 and 2013 at: http://www.qog.pol.gu.se/data/datadownloads/qogeuregionaldata/

[4] Charron, Nicholas. 2013. 'QoG at the sub-national level and the EQI.' In *Good Government and Corruption from a European Perspective: A Comparative Study on the Quality of Government in EU Regions*, Charron, Nichoals, Victor Lapuente and Bo Rothstein, eds. Edward Elgar Publishing.

[5] For a full list of questions see the appendix 4 of this document. For a summary of the results at the national level, see: Charron, Nicholas. 2013. 'Measuring Quality of Government in the Europe: Perceptions and Experiences of Citizens for 212 Regions in 24 European Countries: A Descriptive Summary of the Survey Results.' In Controlling Corruption in Europe- The ANTICORP Report no 1, eds. Alina Mungiu-Pippidi and Bo Rothenstein. Verlag Barbara Budrich publishers.

Unit of analysis

The data here is unique in that the primary goal of the EQI is to provide scholars and policy makers with a comparable metric of QoG to compare *sub-national* (and national) level political and/or statistical units within and across countries in Europe. While the EQI in 2010 provided data for 172 NUTS 1 and NUTS 2 regions, the EQI 2013 has expanded the sample to 206 NUTS 1 and NUTS 2 regions. Table 1 shows the countries and their respective NUTS region and number of total regions, and the total number of individuals sampled.

TABLE 1, SAMPLE OF COUNTRIES IN THE 2013 SURVEY, NUMBER OF NUTS REGIONS AND RESPONDENTS

Abreviation	Countries at NUTS 1 level	No. of Regions	No. of total respondents
DE	Germany	16	6400
UK	United Kingdom	12	4800
SE	Sweden	3	1295
BE	Belgium	3	1208
HU	Hungary	3	1215
GR	Greece	4	1613
TR	Turkey*	12	4800
	Countries at NUTS 2 level		
IT	Italy	21	8510
DK	Denmark	5	2028
FI	Finland*	5	2000
NL	Netherlands[a]	12	4822
AT	Austria	9	3600
CZ	Czech Republic	8	3236
SK	Slovakia	4	1609
ES	Spain	17	6800
PT	Portugal	7	2886
FR	France	26	10409
PL	Poland	16	6400
RO	Romania	8	3200
BG	Bulgaria	6	2402
HR	Croatia*	2	800
IE	Ireland*	2	800
RS	Serbia*	5	2015
UA	Ukraine*[h]	6	2400
Total	24 countries	212	85248

**denotes a new country to the sample compared with EQI 2010.*

[a]In the case of the Netherlands, the NUTS level is now level 2 as opposed to 1 in 2010.

[h]is not included in final EQI 2013 due to limited amount of regions represented, but full individual level data is available.

In addition to the countries and regions listed in Table 1, we include all other smaller, EU28 countries in the total EQI data for which there are no NUTS 2 regions[6]

The 2013 survey

The survey began during the month of February, 2013 and was conducted in the local majority language in each country/region. The results were returned to the Quality of Government Institute (Sweden), in April, 2013.

This project consists of a large international survey via telephone interviews, each of approximately 10 minutes in length, during which 32 questions were posed. The sample size of citizens in the survey was over 85,000 European wide. Moreover, the focus of the final data collected is aimed at the regional level. The survey selectively sampled 400-plus citizens per region, and thus the sample size per country will vary depending on the number of regions. The regional level for each country in the survey is based on the European Union's NUTS[7] statistical regional level and is as follows for the countries in the survey. The NUTS level for each country were selected with two factors in mind – the extent to which elected political authorities have administrative, fiscal or political control over one or more of the public services in question, and two, the price. In direct consultation with the EU Commission, the NUTS regions shown in the previous section in each country were selected on these bases.

To maximize regional variation on the QoG-oriented question in the survey, the services in question (education, health care and law enforcement) were selected instead of public services such as immigration, customs, military or courts, which are administered at the national level.

[6] These countries are Cyprus, Malta, Estonia, Latvia, Lithuania, Luxembourg, and Slovenia.
[7] For more information on the NUTS system, please see:
http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction

Two issues in the preparation of this study are worthy of mention here. First, in some areas, such as immigration, customs, defence or the judicial arena, we do not expect much variation from region to region within countries at all. Thus to maximize regional variation on the QoG-oriented question in the survey, we elected to limit the questions in the survey to only those policy areas that are most often either governed or administered by sub-national bodies. In the end, three policy areas were selected – health care, education and law enforcement.

The second issue to deal with is the fact that in some countries – such as Germany, Belgium, Italy or Spain – the regions that we are targeting in the questions are both politically and administratively meaningful. That is to say that these regional governments are elected by their local constituents, and that these governments have their own autonomous revenues (either from directly taxing citizens, or central government transfers or both) and have a degree of autonomy with which to redistribute resources in the form of public services. However, in more politically centralized countries, such as Bulgaria, Romania, Slovakia or Portugal, this issue becomes more challenging. The regions that we are targeting (NUTS 1 or NUTS 2) while meaningful in the sense that EU development funds are targeted directly to them and that Eurostat reports annual data on them, they have in some cases been mainly an invention for EU statistical purposes, yet not *politically* meaningful. Therefore asking a respondent in some cases 'how would you rate the quality 'X' service in your region of 'Y" might be very confusing, since respondents from countries like Hungary or Romania might not recognize that they are even living in region 'Y'. It can therefore be argued that the administrative and political responsibility of the regions in these three public services varies in different countries and thus this may be problematic for this data gathering. However this study argues otherwise, in that we attempt to capture all regional variation within a country and, as several other scholars have noted (e.g. Tabellini 2005), there are numerous empirical indications and anecdotal evidence pointing out that the provision and quality of public services controlled by a powerful central government can nonetheless largely vary across different regions.

Thus to synthesize the survey and make the results as comparable between and within countries as possible, we ask respondents about questions focusing around three key concepts of QoG – the 'quality' of the services themselves, the extent to which they are administered 'impartiality' and extent to which 'corruption' exists *in their area.*

The E.U. regional survey was undertaken between 20 February, 2013, and 6 April, 2013 by Efficience 3 (E3), a French market-research, survey company specializing in public opinion throughout Europe for researchers, politicians and advertising firms. E3 conducted the interviews themselves in several countries and used sub-contracting partners in others[8]. The respondents, from 18 years of age or older, were contacted randomly via telephone in the local language.

Ideally, a survey would be a mirror image of actual societal demographics – gender, income, education, rural-urban, etc. However, we are not privy to exact demographic distributions; in particular at the regional level in most cases, thus imposing artificial demographic lines might lead to even more problems than benefits. We thus sought the next best solution. Based on their expert advice, to achieve a random sample, we used what was known in survey-research as the 'next birthday method'. The next birthday method is an alternative to the so-called quotas method. When using the quota method for instance, one obtains a (near) perfectly representative sample – e.g. a near exact proportion of the amount of men, women, certain minority groups, people of a certain age, income, etc. However, as one searches for certain demographics within the population, one might end up with only 'available' respondents, or those that are more 'eager' to respond to surveys, which can lead to less variation in the responses, or even bias in the results. The 'next-birthday' method, which simply requires the interviewer to ask the person who answers the phone who in their household will have the next birthday, still obtains a reasonably representative sample of the population. The interviewer must take the person who has the next coming birthday in the household (if this person is not available, the interviewer makes an appointment), thus not relying on whomever might simply be available to respond in the household. So, where the quota method is stronger in terms of a more even demographic spread in the sample, the next-birthday method is stronger at ensuring a better range of opinion. The next-birthday method was thus chosen because we felt that what we might have lost in demographic representation in the sample would be made up for by a better distribution of opinion.

Sample Demographics

In total, 85,210 respondents took part in the 2013 survey from 212 regions in 24 countries. Along with QoG and other questions of scholarly interest, we asked respondents several demographic questions. The summary is listed in Table 2

[8] http://www.efficience3.com/en/accueil/index.html. For names of the specific firms to which Efficience 3 sub-contracted in individual countries, please write cati@efficience3.com

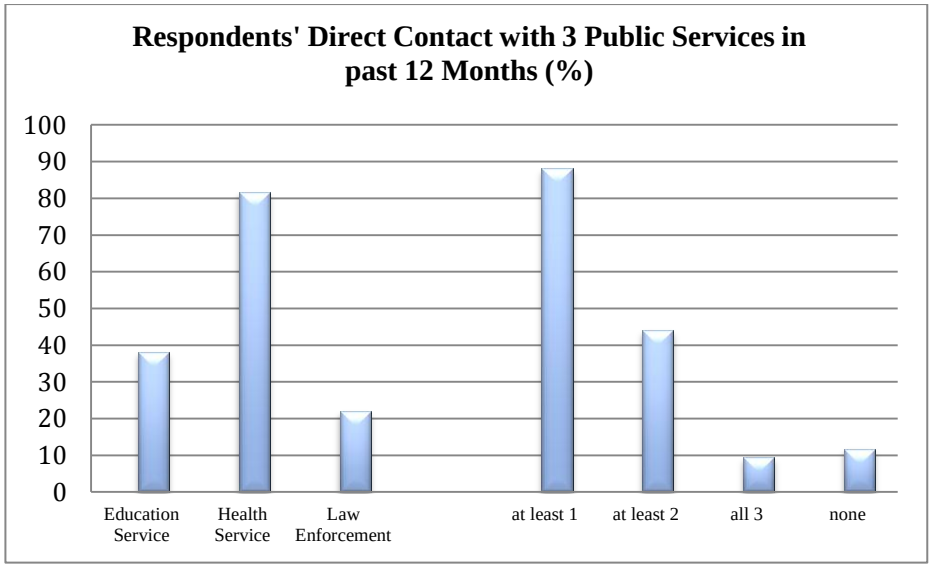
TABLE 2, DEMOGRAPHIC SUMMARY OF RESPONDENTS: 2013

Category		% respondents
Gender		
	male	46.1
	female	53.9
Education		
	<Primary	10.1
	some secondary	17.6
	secondary	34.2
	college/university	27.8
	post-grad degree	10
	n/a	0.3
Age		
	18-29	18
	30-44	35.8
	45-64	26.9
	>65	19.3
	n/a	0.1
Income		
	Low	26.2
	Medium	31.6
	High	28.8
	n/a	13.4
Employment		
	Public sector	18.1
	private sector	35.5
	student	4.7
	unemployed	8.1
	Housewife/man	24.8
	retired	6.1
	other	1.8
	n/a	0.7
Population		
	<10k	34.5
	10k-100k	35.5
	100k-1m	20.3
	>1m	8.3
	n/a	1.4
Language		
	mother tongue=majority	92.9
	other language	6.9
	n/a	0.1

Respondents' Personal Experience with Public Services in Question

Having direct contact with a service gives one's opinion credibility, in that one's perception is based on first-hand experience. In the first three question of the survey, we ask respondents if they have had any direct contact with education, health care or law enforcement in the past 12 months. We find similar results to the 2010 survey with respect to direct respondent experience with the services in their region. A vast majority of respondents (81.6%) have had direct contact with their health services, while 38.1% and 22% have had first-hand contact with education and law enforcement services respectively. In total, almost 90% of the respondents had direct contact with at least one services, while 44.2% at least two and almost 10% all three. 11.7% did not have firsthand contact with any of the three in the past year.

FIGURE 1, RESPONDENTS´DIRECT CONTACT WITH THREE PUBLIC SERVICE IN PAST 12 MONTHS (%)



The 16 QoG Related Questions and Regional Level Results

In questions 4-6, respondents rate the quality of their three public services in question on a scale of '0' (extremely poor quality) to '10' (extremely high quality):

4. 'How would you rate the quality of public education in your area?' (edqual)

5. 'How would you rate the quality of the public health care system in your area?' (helqual)

6. 'How would you rate the quality of the police force in your area?' (lawqual)

Table 3 summaries the regionally aggregated scores and shows the top 5 and bottom 5 performers. We find in general that Europeans are generally positive about the quality of their three services – average response are all over 6.0, with people finding highest quality in education.

The respondents in the Finish and Dutch regions rank their services of highest quality on average, along with several regions in Northern Italy and Flanders in Belgium. Several regions in Bulgaria and Turkey are rated worst quality in terms of education, while Greek, and Bulgarian, along with a few regions in southern Italy and Poland rate their health care of lowest quality. Ukraine regions are unanimous that their law services provide the lowest relative quality in the sample.

TABLE 3, THREE QUALITY QUESTIONS: TOP AND BOTTOM FIVE REGIONS

Rank	Region	Education	Region	Health Care	Region	Law Enforcement
1	Åland (FI)	7.72	Vlaams Gewest (BE)	7.83	Åland	7.61
2	Länsi-Suomi (FI)	7.67	Trento	7.81	Bolzano	7.60
3	Etelä-Suomi (FI)	7.59	Bolzano (IT)	7.78	Trento	7.58
4	Pohjois-Suomi (FI)	7.59	Valle d'Aosta (IT)	7.69	Valle d'Aosta	7.49
5	Trento(IT)	7.58	Friesland (NL)	7.58	Bati Marmara (TR)	7.29
Regional Sample Ave. (st. dev.)		6.4 (0.48)		6.28(0.85)		6.33(0.54)
208	Ortadogu Anadolu (TR)	5.24	208 Calabria (IT)	4.62	208 Odessa (UA)	4.74
209	Ege (TR)	5.10	209 Voreia Ellada (GR)	4.62	209 Zakarpatt (UA)	4.69
210	Severozapaden (BG)	5.05	210 Mazowieckie (PL)	4.57	210 Kharkov (UA)	4.54
211	Bati Anadolu (TR)	5.00	211 Kentriki Ellada (GR)	4.31	211 Lviv (UA)	4.23
212	Yugozapaden (BG	4.94	212 Yugozapaden	4.30	212 Kiev (UA)	3.99

The next six questions try to capture the extent to which public services are delivered impartially in the regions of Europe. 'Impartiality' is admittedly a more complicated concept to put forth to respondents than 'quality', so we framed this question in two ways –with a more negative tone, and a more positive tone. In the first three questions (7-9), we asked citizens to rate whether they agreed that 'certain people' get special advantages when dealing with the public service in question from 0 (strongly disagree) to 10 (strongly agree). The second set of questions (10-12) asks respondents whether all people in their region are 'treated equally' by the service in question on a four point scale (1. *Agree, 2. rather agree, 3. rather disagree or 4. Disagree).* We use all six questions in the final index to allow for as much variation as possible while not letting either the 'positively' or 'negatively' framed question determine the impartiality data alone.

7. "Certain people are given special advantages in the public education system in my area." (edimpart1)

8. "Certain people are given special advantages in the public health care system in my area." (helimpart1)

9. "The police force gives special advantages to certain people in my area." (lawimpart1)

10. "All citizens are treated equally in the public education system in my area" (edimpart2)

11. "All citizens are treated equally in the public health care system in my area" (helimpart2)

12. "All citizens are treated equally by the police force in my area" (lawimpart2)

We find that in education and health care, several regions in Turkey, along with Finland, Northern Italy and Netherlands, rate their services as the most impartial on the first set of questions. We see several Danish and Swedish; along with Rhineland-Palatinate in Germany rate their law enforcement most impartial, while respondents from regions in Serbia, Croatia and in particular, Ukraine, believe their services strongly favor certain individuals. The data show that the responses were more untied around impartiality in education services, whereas the variation is larger in health care and law enforcement, as shown by the standard deviation.

TABLE 4, SIX IMPARTIALITY QUESTIONS: TOP AND BOTTOM FIVE REGIONS

Rank	**Region**	**7.Education**	**Region**	**8.Health Care**	**Region**	**9.Law Enforcement**
1	Åland	2.72	Bati Marmara (TR)	2.75	Åland	2.07
2	Severoiztochen (BG)	3.04	Dogu Karadeniz (TR)	2.83	Etelä-Suomi	2.55
3	Bolzano	3.05	Bati Karadeniz (TR)	2.87	Syddanmark (DK)	2.60
4	Trento	3.08	Åland	3.03	Rhineland-Palatinate (DE)	2.74
5	Kuzeydogu Anadolu (TR)	3.21	Utrecht (NL)	3.34	Södra Sverige (SE)	2.78
Sample Ave. (s.d.)		4.37(0.69)		4.83(0.84)		4.11(0.94)
208	Kosovo	6.22	Jadranska Hrvatska (HR)	6.66	Šumadija and W. Serbia	6.49
209	S. E. Serbia	6.24	Kontinentalna Hrvatska (HR)	6.70	Odessa	6.50
210	Šumadija and W. Serbia	6.37	Šumadija and W. Serbia	6.83	Zakarpatt	6.57
211	Lviv	6.42	Lviv	6.92	Lviv	7.01
212	Kiev	7.24	Kiev	7.66	Kiev	7.91

Rank	Region	10.Education	Region	11.Health Care	Region	12.Law Enforcement
1	Åland	1.55	Overijssel	1.47	Saarland(DE)	1.56
2	Border, Midland & W. (IE)	1.66	Utrecht	1.49	Åland	1.56
3	Overijssel (NL)	1.70	Flevoland (NL)	1.53	Overijssel	1.66
4	Zeeland (NL)	1.71	Groningen(NL)	1.54	Schleswig-Holstein(DE)	1.67
5	Limburg (NL)	1.73	Friesland (NL)	1.55	Nordjylland (DK)	1.68
Sample Ave. (s.d.)		2.20(0.25)		2.31(0.35)		2.23(0.33)
208	Odessa	2.83	Yugozapaden	2.95	Odessa	3.05
209	Zakarpatt	2.88	Crimea	3.00	Zakarpatt	3.07
210	Crimea	2.88	Zakarpatt	3.02	Crimea	3.11
211	Lviv	3.05	Lviv	3.17	Lviv	3.20
212	Kiev	3.22	Kiev	3.34	Kiev	3.41

In terms of the second set of impartiality questions, we find largely quite consistent results (correlations among the questions can be found in the appendix), in particular with the regions that rate their regional service least impartial. Among the top places, several Turkish regions drop below regions in the Netherlands and Denmark.

The next four questions deal with respondents' perception of the extent to which corruption is present in their public services, along with a general question of how often they believe that 'others in their area' use corruption to obtain public services. Again, perceptions may not capture the full story, however, as Kaufman et al (2009:3) argue "perceptions matter because agents base their actions on their perceptions, impression, and views", thus if citizens believe their public services are inefficient or corruption, they are less likely to use their services, likewise with foreign firms and investment in countries perceived to be plagued with problems of rent-seeking and public sector mismanagement. However, we complement these four questions with additional questions about respondents' actual experience with bribery later on. The first three questions are scaled as 0-10, with '0' being "strongly disagree" and '10' being "strongly agree". The fourth question constitutes a slight change from the previous 2010 round, whereby instead of asking citizens about 'how often others engage in bribery to obtain public services', we attempt to tap into a level of corruption that is higher than 'petty corruption', in that we ask respondents about corruption for 'special advantages'.

13. "Corruption is prevalent in my area's local public school system" (edcorr)

14. "Corruption is prevalent in the public health care system in my area" (helcorr)

15. "Corruption is prevalent in the police force in my area" (lawcorr)

16. In your opinion, how often do you think other people in your area use bribery to obtain other special advantages that they are not entitled to? (0 never - 10 Very frequently) (otherscorr)

TABLE 5, FOUR CORRUPTION PERCEPTION QUESTIONS: TOP AND BOTTOM FIVE REGIONS

Rank	Region	Education	Region	Health Care	Region	Law Enforcement	Region	'Others Corrupt'
1	Åland	0.94	Åland	1.11	Åland	1.00	Itä-Suomi	1.66
2	Syddanmark	1.55	Hovedstaden	1.81	Midtylland	1.64	Åland	1.86
3	Hovedstaden	1.64	Midtylland	1.84	Syddanmark	1.67	Etelä-Suomi	1.93
4	Midtylland	1.69	Nordjylland	1.96	Hovedstaden	1.77	Länsi-Suomi	1.98
5	Nordjylland	1.77	Sjaelland	1.96	Sjaelland	1.78	Border, Midland & W. Ireland	2.06
Sample Ave.(s.d.)		3.28(1.01)		3.98(1.22)		3.72(1.16)		4.04(1.15)
208	Belgrade	5.99	Belgrade	6.39	Crimea	6.50	Kentriki Ellada(GR)	6.33
209	Šumadija and W. Serbia	6.00	Zakarpatt	6.44	Zakarpatt	6.59	Šumadija and W. Serbia	6.49
210	Kosovo	6.00	Yugozapaden	6.49	Kharkov	6.68	Zakarpatt	6.53
211	Lviv	6.62	Lviv	7.26	Lviv	7.32	Lviv	7.00
212	Kiev	7.37	Kiev	7.88	Kiev	8.18	Kiev	7.45

We find that respondents in the Danish, Finish and Irish, along with Northern Italy and Dutch, find that their services to be least corrupt, while Serbian, Greek, Romanian and Ukrainian respondents tended to perceive their services as most corrupt. In general, Europeans perceive their services to be fairly 'clean', in that the averages responses are under '5'. However, there are notable differences across the three sectors - education services are perceived to be the least corrupt, while health care and law enforcing are perceived are more so.

In addition to corruption perceptions questions, we ask about citizens' direct experience with corruption.

17. 'In the past 12 months have you or anyone living in your household paid a bribe in any form to: (a): Education services? (b): Health or medical services? (c): Police? d) any other public service? '(yes/no)' (bribe)

The results of these questions show that petty corruption for these public services is very geographically focused in certain areas in Europe and is most likely in the health care sector. We find that 5.9% of total respondents paid a bribe in some form to within the health care services in the past 12 months, while just 1.4% and 1.2% did so for education and law enforcement respectively. 1.7%

said they paid a bribe in the past 12 months for 'another public service'. Figure 2 shows the regions where bribery occurred most I the past year according to the respondents in the survey.

FIGURE 2, REGIONS WITH MOST REPORTED BRIBERY IN HEALTH CARE SECTOR

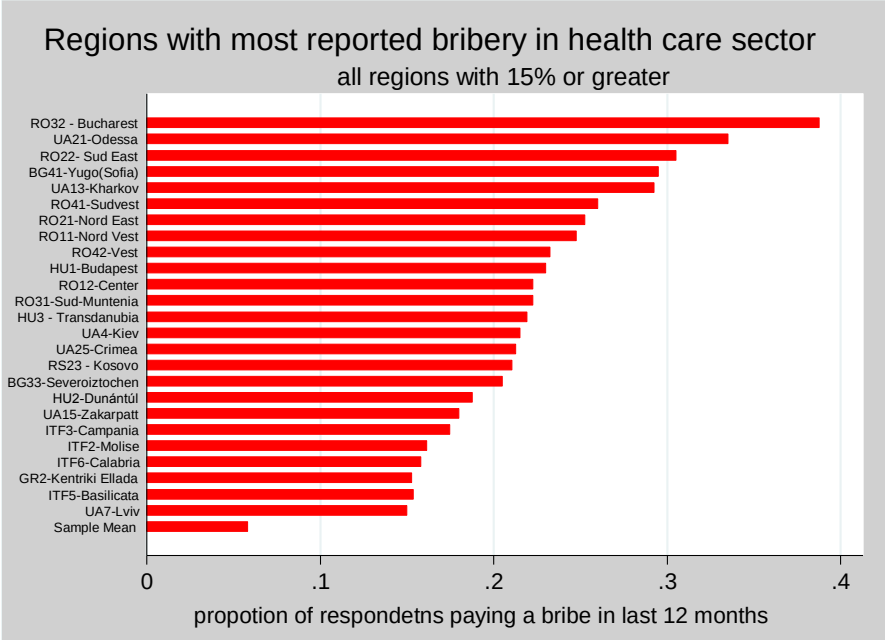
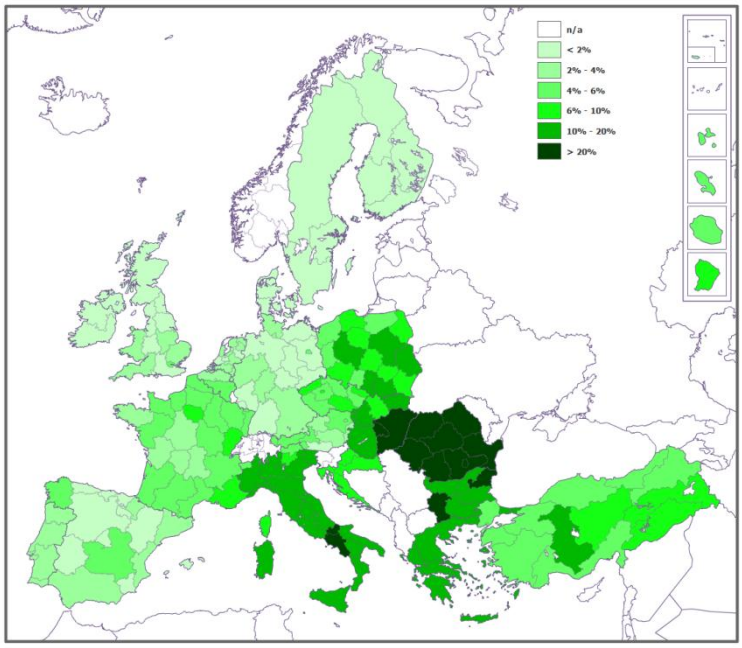


Figure 3 maps out bribery occurrence in Europe (excluding Serbia and Ukraine) as the percentage of total respondents in a given region having paid at least one bribe in the services inquired about in question 17.

FIGURE 3, PROPORTION OF REPORTED BRIBERY IN EUROPEAN REGIONS



Finally, we ask about two other relevant regional aspects of QoG, namely the extent to which corruption is present in their area's elections and the respondents' trust in their area's media in reporting on matters of corruption in the public sector and among politicians.

Q18-19: Please respond to the following 2 questions with the following ('0' strongly disagree - '10' strongly agree)

Q18: "Elections in my area are clean from corruption" (elections)

Q19: "I trust the information provided by the local mass media on matters of politics and public services in my area". (media)

TABLE 6, MEDIA & ELECTION QUESTIONS: TOP AND BOTTOM FIVE REGIONS

Rank	Region	Election	Region	media
1	Åland	8.20	Åland	6.75
2	Veneto	8.13	Pohjois-Suomi	6.34
3	Trento	8.04	Border, Midland & W. Ireland	6.29
4	Friuli V.G.	7.99	Etelä-Suomi	6.16
5	Bolzano	7.84	Länsi-Suomi	6.14
Sample Ave.(s.d.)		5.80(1.01)		4.81(0.59)
208	Ege	4.24	Galacia	3.69
209	Yugoiztochen	4.17	Ege	3.57
210	Severozapaden	4.10	Athens	3.41
211	Kiev	3.88	Salzburg	3.04
212	Kosovo	3.72	Voralberg	2.70

We find that northern European and Northern Italian regions to have the least corruption perceived in their areas' elections, while Bulgarian, Romanian, Ukrainian and several Turkish regions are ranked most corrupt in terms of elections. We find similar results in trust for media reporting impartially on political matters, yet surprisingly, several Austrian regions, along with some Spanish, have among the least trusting respondents in Europe. Finish, Irish and Swedish regions have the highest trust in their area's media on covering matters of politics.

Brief Discussion of the Methods to Build the EQI

We begin by taking the country average from the World Bank's WGI data for four indicators: '*control of corruption', 'government effectiveness', 'rule of law'* and *'voice and accountability'* and combine the four into one composite index (equal weighting)[9]. The data is taken for the most recent year of publication (2011). Then, the combined WGI data is standardized for the EU sample. This figure is used as country's mean score in the ***EQI*** for all countries in the sample so as to combine those countries

[9] In addition, we underwent extensive sensitivity testing of each of these 4 pillars of QoG from the World Bank and found the data to be highly robust. For a closer look at the sensitivity tests and results for the EU sample of countries see Charron, Nicholas. 2010. "Assessing The Quality of the Quality of Government Data: A Sensitivity Test of the World Bank Government Indicators." QoG Working paper.

outside the survey with those in it as well as to 'anchor' the regional QoG estimates in a national context that is not captured by the regionally-based survey questions[10].

Table 7 shows the results of the latest national level WGI scores by country and indicator. The countries are in rank order and grouped together based on the result of a cluster analysis[11] of that grouped together countries that were most similar on the four individual WGI indicators. The scores are then added together (equal weighting) and then standardized within the sample of 30 European countries. As a point of reference, we also provide the rank-change from the 2010 EQI (which used 2008 WGI data)

We see five cluster groups in the data. The most difficult state to place was Croatia, as it could also belong to group 4, yet in the end was placed in group 5. We observe that the rank order of countries has not changed for most of the states in the sample, and most changes are only 1-2 places. Notable exceptions are Greece and Ireland, which fell four and three places respectively since the EQI 2010 (which used the latest published WGI data at that time, which was from 2008), and Belgium and Poland, which climbed three places each in the rankings.

[10] Charron 2013 provides more on this point.
[11] Wards linkage and squared Euclidean distancing

TABLE 7, COUNTRIES IN RANK ORDER BY NATIONAL LEVEL QOG AND FIVE CLUSTER GROUPS

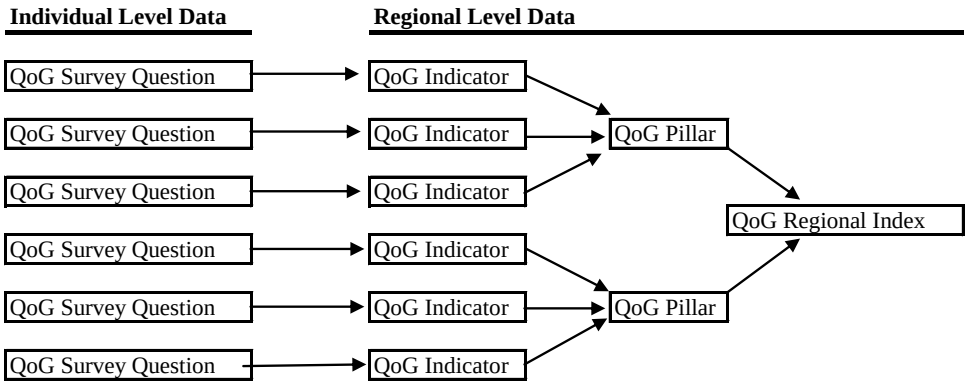
Overall Rank	Country	VA11	GE11	RL11	CC11	Combined QoG11	ST.QoG11	Previous rank(08)	Δ rank
1	DENMARK	1.61	2.17	1.92	2.42	2.03	1.61	1	0
2	FINLAND	1.54	2.25	1.96	2.19	1.98	1.53	2	0
3	SWEDEN	1.59	1.96	1.95	2.22	1.93	1.45	3	0
4	NETHERLANDS	1.52	1.79	1.82	2.17	1.83	1.28	4	0
5	LUXEMBOURG	1.57	1.73	1.81	2.17	1.82	1.28	6	1
6	AUSTRIA	1.41	1.66	1.81	1.44	1.58	0.89	5	-1
7	GERMANY	1.31	1.53	1.62	1.69	1.54	0.82	8	1
8	BELGIUM	1.4	1.67	1.45	1.58	1.52	0.8	11	3
9	UNITED KINGDOM	1.27	1.55	1.67	1.54	1.51	0.78	9	0
10	IRELAND	1.32	1.42	1.77	1.5	1.5	0.77	7	-3
11	FRANCE	1.2	1.36	1.5	1.51	1.39	0.59	10	-1
12	CYPRUS	1.08	1.53	1.06	0.96	1.16	0.22	13	1
13	MALTA	1.12	1.16	1.35	0.91	1.14	0.18	12	-1
14	SPAIN	1.1	1.02	1.2	1.06	1.1	0.12	15	1
15	ESTONIA	1.09	1.2	1.18	0.91	1.1	0.12	14	-1
16	PORTUGAL	1.12	0.97	1.01	1.09	1.05	0.05	16	0
17	SLOVENIA	1.03	0.99	1.07	0.93	1	-0.03	17	0
18	CZECH REPUBLIC	0.98	1.02	1.01	0.32	0.83	-0.3	18	0
19	POLAND	1.04	0.68	0.73	0.51	0.74	-0.45	22	3
20	SLOVAKIA	0.95	0.86	0.65	0.29	0.69	-0.53	20	0
21	HUNGARY	0.85	0.71	0.77	0.34	0.67	-0.56	19	-2
22	LITHUANIA	0.84	0.68	0.77	0.29	0.64	-0.6	24	2
23	LATVIA	0.74	0.68	0.8	0.21	0.61	-0.66	23	0
24	ITALY	0.94	0.45	0.41	-0.01	0.45	-0.91	25	1
25	GREECE	0.82	0.48	0.57	-0.15	0.43	-0.94	21	-4
26	CROATIA	0.42	0.55	0.18	0.02	0.29	-1.15	26	0
27	TURKEY	-0.17	0.41	0.08	0.1	0.1	-1.46	27	0
28	BULGARIA	0.47	0.01	-0.09	-0.17	0.05	-1.54	29	1
29	ROMANIA	0.41	-0.22	0.04	-0.2	0.01	-1.61	28	-1
30	SERBIA	0.29	-0.15	-0.33	-0.2	-0.1	-1.78	30	0

Note: VA, GE, CC and RL stand for Voice and Accountability, Government Effectiveness, Control of Corruption and Rule of Law respectively. The five shaded colors represent the results of a cluster analysis, with lighter shades equating to higher QoG.

We then take the standardized sample mean for 2011 WGI data and set each country's national average as such. The regional data itself combines 16 survey questions about QoG in the region. The services in question are public education, public health care and law enforcement. The questions are centered on three QoG concepts: 'quality', 'impartiality' and 'corruption'. In building the regional index, we aggregated the 16 questions/indicators to three pillars based on factor analysis[12]; labeled '*quality', 'impartiality'* and *'corruption'*, then we averaged these three pillars together to form the final index figure for each region. After each stage of aggregation, the data are standardized. For the seven EU28 countries outside of the regional survey, there is nothing to add to the WGI Country score, thus the WGI data is used as the QoG estimate alone, as regional variation is unobserved. With respect to countries *with* the regional data, we set the national average as the WGI and explain the within-country variance using the regional-level data.

The 'roadmap' so to speak of the aggregation process can be seen in Figure 4

FIGURE 4



To begin, we aggregate the individual scores ('survey question') to the corresponding regional level, so that each of the 16 questions in the index is now a regional 'indicator'. Factor analysis then groups the 16 indictors into more similar groupings, of which we find three (see Table 1a in the appendix). After normalizing each of the 16 indicators (through standardization) so that they share a common range, the 16 indicators are aggregated into the three groupings 'pillars'. The pillars are then aggregated into the regional index[13]. After each step of aggregation, the data is standardized[14].

[12] Results of the factor analysis can factor weights are found in the appendix 2, Table A.3 of this paper.
[13] Nardo et al. (2008) point out that when combining multiple indicators into a single index, the underlying data should be significantly correlated. We find that 98.5% of the pairwise correlations among the variables are significant and in the expected direction at the 99% level of confidence. We show the results in Appendix 2, Table A.2.

Next, we aggregate the regional QoG score for each of the countries included in the 2013 regional survey, weighting each region's score by their share of the national population. This figure is thus used to explain regional variation only within each country included (not absolute levels of QoG). We then subtract this mean score from each region's individual QoG score from the regional study, which shows if the region is above or below its national average and by how much. This figure is then added to the national level, WGI data, so each region has an adjusted score, centered on the WGI. It is worth mentioning that none of the regional variation from the regional index is lost during this merging process. The formula employed is the following:

$$EQI_{regionX\ in\ countryY} = WGI_{countryY} + \left(Rqog_{regionX\ in\ countryY} - CRqog_{countryY}\right)$$

where 'EQI' is the final score from each region or country in the ***EQI***, 'WGI' is the World Bank's national average for each country, 'Rqog' is each region's score from the regional survey and 'CRqog' is the country average (weighted by regional population) of all regions within the country from the regional survey. The ***EQI*** is standardized so that the mean is '0' with a standard deviation of '1'.

A full list of the EQI for 2013 for all countries and regions is located in Appendix 1. As in the results for 2010, we find that in several cases, the data show significant and wide variations in QoG within countries (Italy, Belgium, Turkey, Spain for example), while others show little to no variation in regional QoG (Denmark, Sweden, Netherlands, Slovakia).

Sensitivity and Robustness of the Data

Building a composite index with multiple variables requires many steps and decisions along the way, most of which are arbitrary. As the data is an index built on multiple underlying factors and indicators, we perform a wide array of sensitivity testing for both the national level WGI data as well as the regional scores.

For example, what if we had chosen factor weights instead of equal weighting? What if certain variables are removed or if we use an alternative method of standardization? What happens if we aggregate the data using a different method, say multiplying (geometric aggregation) the 16 indicators together rather than adding (arithmetic aggregation) them?

---

[14] Appendix 2 shows the correlations among the pillars and the full regional index along with a scatterplot of the most dissimilar two pillars (corruption and quality). All are highly correlated with each other and the index.

Further, we do not have perfect information as to the demographic make-up of each region in our sample, thus population weights by gender, age, income, etc. would be imposing a very arbitrary (and possibly quite misleading) constraint on the outcome of the index. Thus we elect to check for the sensitivity of the removal of certain demographic groups instead. If the rank-order of the regions changes drastically due to the removal of say, low income earners, than we know that regions where higher income earners are possibly over-sampled would have an advantage in the final index. Thus along with alternative weighting, aggregation, normalization methods and removal of individual indicators I the index, we removed certain demographic groups and re-aggregate the index, comparing with the final EQI 2013 in Figure 4, comparing the two outcomes[15].

We find that the results are highly robust and that the underlying individual indicators correlate strongly to one another, which is what we would expect based on the fact that they are all contributing to a shared, broad concept (QoG). A sensitivity and uncertainty test for the WGI national level data can be found in Charron (2010). For the regional level sensitivity test for the 2013 data, (although admittedly no exhaustive) we run over 70 simulations whereby we alter aspects of the data during the building and aggregation process. The data proved to be highly robust to all alterations - in none does the Spearman Rank Coefficient drop below 0.91. We find the most sensitive regions to alterations to be several regions in Romania and Turkey. In Romania for example, most regions climb quite significantly in the rankings if aspects (or the whole pillar) or corruption is removed, meaning that they tend to score much higher on questions of quality or impartiality on average. This can be seen clearly in Figure A.1. in Appendix 2, where Romanian respondents rate their public services as among the most corrupt in Europe while ranking them among the mean in terms of quality, demonstrating the importance of separating various concepts within the broad framework of measuring QoG.

In general, even for the most extreme scenarios, the median change in rank is less than 9 places (of a total of 206). A summary of the results of the sensitivity testing regional scores can be found in Appendix 3, where we highlight the most extreme scenarios from the sensitivity testing.

Confidence Intervals of the EQI 2013

As we reported for 2010, we construct margins of error for the regional estimates, similar to the authors of the WGI report 'margins of error' around each of the QoG variables that they publish

[15] Measures recommended by Nardo et al (2008) in the JRC-OECD handbook on composite indicators. In addition, we would like to thank Michaela Saisana for her help in this process.

annually. The idea is to construct a type of margin of error around the regional estimates so that we can say with some degree of certainty that region 'x's higher QoG score is in fact 'significantly' higher than region 'y's score.

As noted, the regional QoG index is based on data from a randomly selected group of respondents in each of the 206 regions. We thus do not claim to report the 'absolute' value of QoG in any given region but rather an estimate of the total population. Although, in theory, any number can be chosen, we select a margin of error at the 95% confidence level. After obtaining the margin of error based on our sample size, we then can calculate the distance around the estimates of QoG for each region.

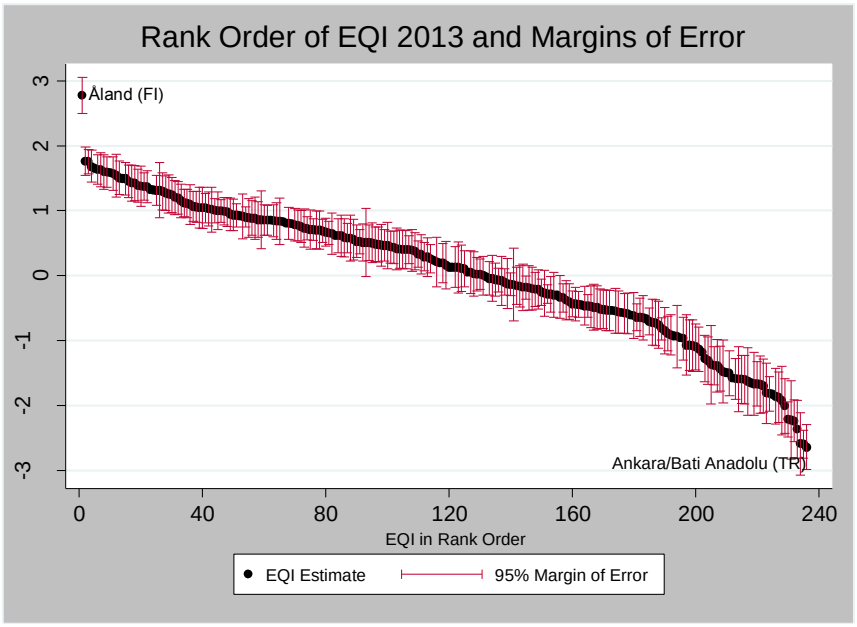
To be precise, there are two ways to go about calculating the margin of error for survey data – an 'exact' confidence interval and an 'approximate' confidence interval. The former takes into account both sampling and non-sampling errors, while the latter only random sampling errors. While the 'exact' interval may be more precise, we find the advantages of the 'approximate' confidence interval to far outweigh the drawbacks, in particular with respect to the efficiency and time saved in the calculation. Moreover, we have no reason to suspect that there is any bias in certain groups being excluded or not being forthright in their responses, so compensating for such error is simply beyond our reach. Thus we report an 'approximate' confidence interval for each region's QoG estimate.

We begin by assuming a normal distribution of the sample so that we may use the Central Limit Theorem. We know from basic statistical probability that in a sample 'x', 95% of the area of a basic normal Bell curve are between our estimates (μ) 1.96+/- the standard error around μ. We calculate the standard error as: S.E. = $\sigma/\sqrt{n}$. The margin of error for each individual region is based around the QoG estimate: $1.96 +/- \left(\sigma/\sqrt{n}\right)$ with N = 16, because there are 16 indicators in the QoG index which have been aggregated from the survey data.

As shown in Figure 5, each region will have their own individual margin of error based on the consistency of the estimates for each of the 16 aggregated questions in the survey. Regions where aggregate responses to the QoG questions are inconsistent (e.g. citizens feel that that the services are impartial, but lack good quality) will have higher margins of error than those regions where citizens rated the quality, impartiality and corruption at a consistently high (or moderate or low) level.

The mean margin of error by region is 0.32 with a standard deviation of 0.09. The three regions with the greatest level of certainty are Stredni Cechy (CZ02), East of England (UKH) and Severozapad (CZ04) with 0.153, 0.167 and 0.175 respectively. The three regions with the margins of error around their estimates are Severoiztochen (BG33), Kosovo (RS23) and Bucharest (RO32) with 0.596, 0.650 and 0.666 respectively. Figure 5 shows the full range of countries and regions with confidence intervals around the estimates of the EQI 2013[16]. The highest ranked region is the small, island, Swedish speaking Finish region of Åland, which shows to be a positive outlier; while the capital region of Turkey, Ankara/Bati Anadolu is ranked lowest.

FIGURE 5, EQI ESTIMATES IN RANK ORDER AND MARGINS OF ERROR



EQI 2013 Comparisons with 2010, and Retrospective Changes to the 2010 EQI Data

As QoG is thought to be a 'slow moving' variable at the national level, we would expect the same at the regional level. Therefore would anticipate that the regional scores from 2010 (again, a completely difference citizen sample) would be highly correlated with the 2013 data. Yet due to the inclusion of several new countries as well as the change in NUTS level for the Netherlands, we must take a few factors into consideration when comparing the two years because as with any index that standardizes the scores (as WGI and Transparency International's *Corruption Perception Index* do

[16] Due to the fact that the margins of error are constructed using the regional data, there are no confidence intervals for the national level estimates, thus countries like Estonia or Malta do not have them.

for example) the addition of countries or regions in later years can make arbitrary shifts in regional/country rankings if previous data is not adjusted. For example, in standardized data, adding 5 additional 'high QoG' regions from Finland can push down the score/ranks of other regions (even if such regions did not 'actually' decline in QoG) if we do not take into account this number of observation increase retrospectively from the previous round. Therefore, to fairly compare the rank of a region included in both round, such as Bavaria in Germany for example, we need to have the same number of units (regions) in both years, centered on the same number of countries. One of the advantages of our method is that we center the country EQI averages on the WGI data, which is available for almost 200 countries annually, thus we can in fact adjust to the addition of any new European country in subsequent years.

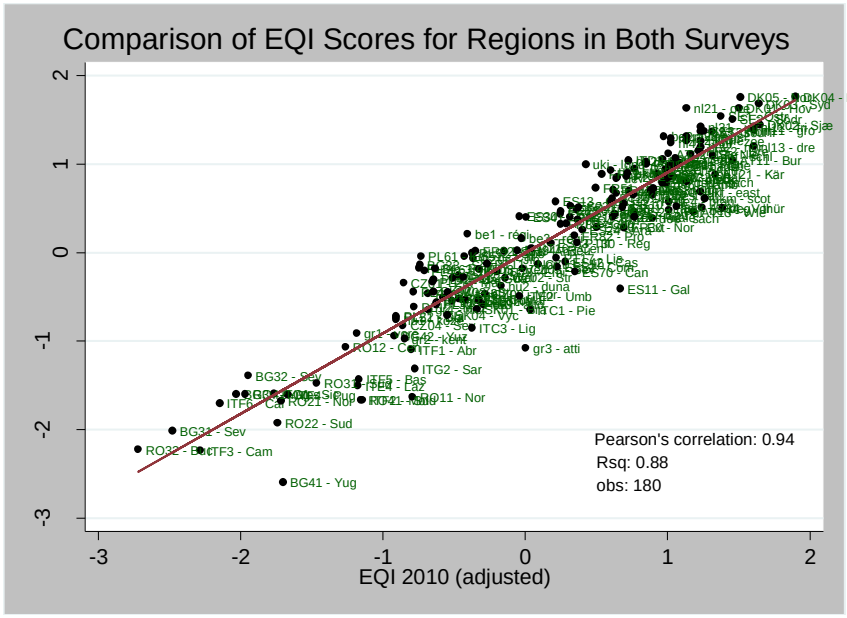
Thus, as is done with the WGI at the national level QoG data, we are able to make slight retrospective changes to the previous round of data when new countries or regions are included. We make slight adjustments in two ways.

First, when adding new countries, such Serbia, Croatia, or Turkey, we can we give the regions the national level score for 2010 EQI (e.g. 2008 WGI data) for calculation purposes to calculate comparisons between the two times periods with the same among of regions (however, the regional scores in the newly added states should not to be directly compared with 2013 data, as regional variations are assumed to=0)[17]. For two counties for which we provided national level estimates only in 2010, Finland and Ireland, the national average is simply used for each of the region NUTS 2 regions for the 2010 round.

Second, for the Netherlands, we substitute the NUTS 1 level data on the NUTS 2 regions for the previous round for comparability (e.g. NL11, NL12 & NL13 all get the score of NL1 for 2010).

[17] In addition, Croatia's 3 Nuts 2 regions have been merges into 2 – HR1 and HR2 now make up what is called HR4, and the data prior to 2012 will combine these two using population weighted averages.

FIGURE 6, COMPARISON OF EQI SCORES FOR REGIONS IN BOTH SURVEYS



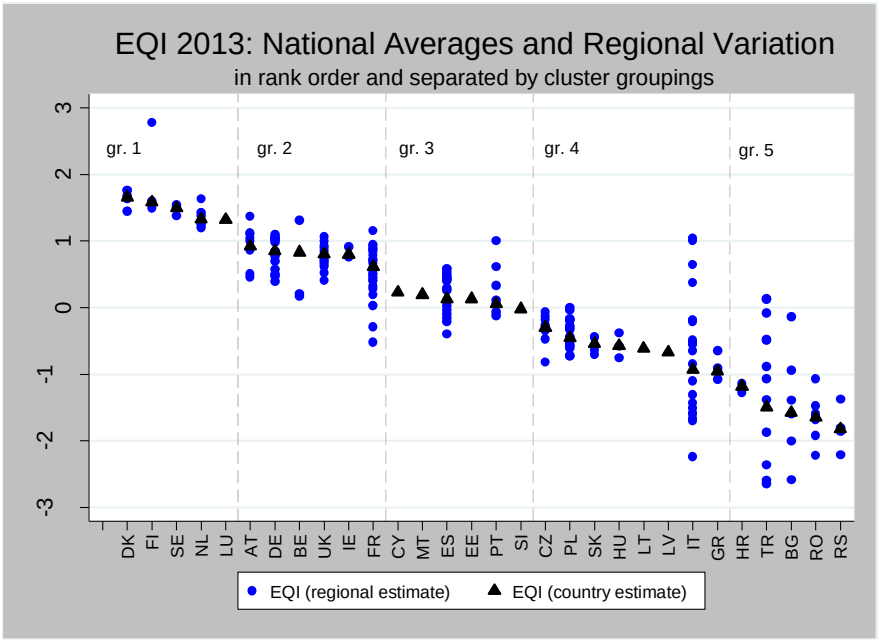
Note: 2010 EQI scores have been adjusted to include all new regions and countries in the 2013 round. Only regions in both surveys are shown in Figure 6.

The two rounds of data in fact correlate very highly (at 0.94) and 88% of the variation in 2013 can be explained by the 2010 round[18]. Regions that lie over (under) the regression line are ranked relatively higher (lower) than the previous round. We find that the regions of Galicia (ES) and Athens (GR) have dropped the farthest relative to 2010, while Brussels (BE), Kujawsko-Pomorskie (PL) and London (UK) have the highest relative increase in EQI score.

[18] In addition, as did the 2010 EQI, when checking for external validity of the data, the 2013 EQI correlates strongly and positively with the Human Development Index, GDP per capita, and social trust.

Within Country Variation

FIGURE 7, EQI 2013: NATIONAL AVERAGES AND REGIONAL VARIATION



As with the 2010 EQI data, there was great variation among countries with respect to how much QoG regional variation was present. Figure 7 presents a rank order of the 30 countries in the sample and their respective regional distribution by EQI score[19]. The dashed lines show each of the five country cluster groupings. Similarly to the previous round, we find very little relationship between decentralization/federalism and the extent to which regions vary by QoG within counties. However, same as in 2010, we find that there is one noticeable trend – that no countries in the highest group (group 1) have any significant regional variation (with the exception of Åland relative to all other regions), while 5 out of the lowest rank seven countries do. However, relatively low-QoG countries like Poland, Hungary and Slovakia have no significant sub-national QoG variation.

Italy, as in 2010, displays the largest amount of regional disparity, with regions spanning over a remarkable 3.3 standard deviations in the data. Other countries, such as Turkey, France, Bulgaria, Belgium, Portugal, Spain and Romania, all have meaningful variation, with regions spanning over a full standard deviation in the EQI data.

[19] There are of course several more advanced techniques for showing within unit variation, as discussed by Shanker and Shah (2003), such as Gini or Theil indices, yet for the sake of simplicity, a simple distribution and min-max differences are put forth here.

Aside from the visual in Figure 7, it is recommended that scholars look at the regional estimates using the margins of error to check if divergences within countries are meaningful. We show a few examples in figure 8-11.

FIGURE 8, EQI IN DUTCH REGIONS

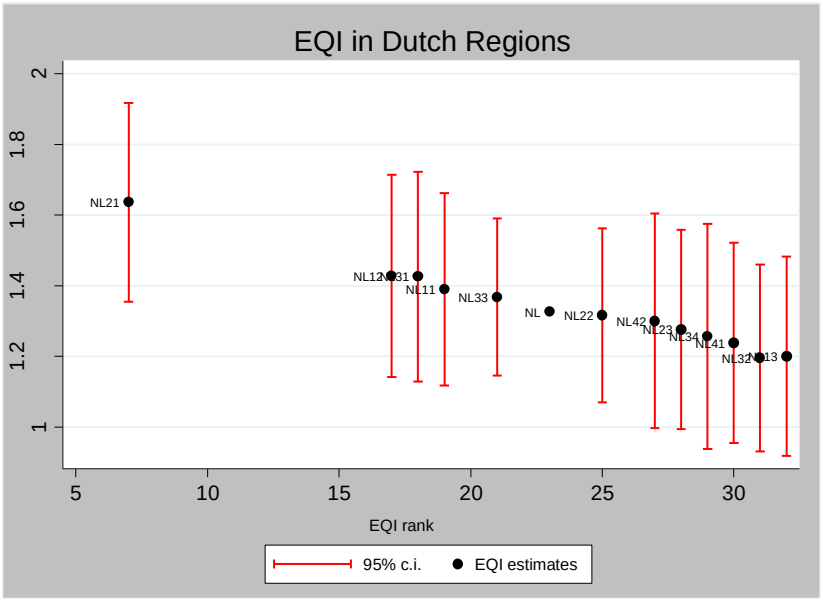


FIGURE 9, EQI IN FRENCH REGIONS

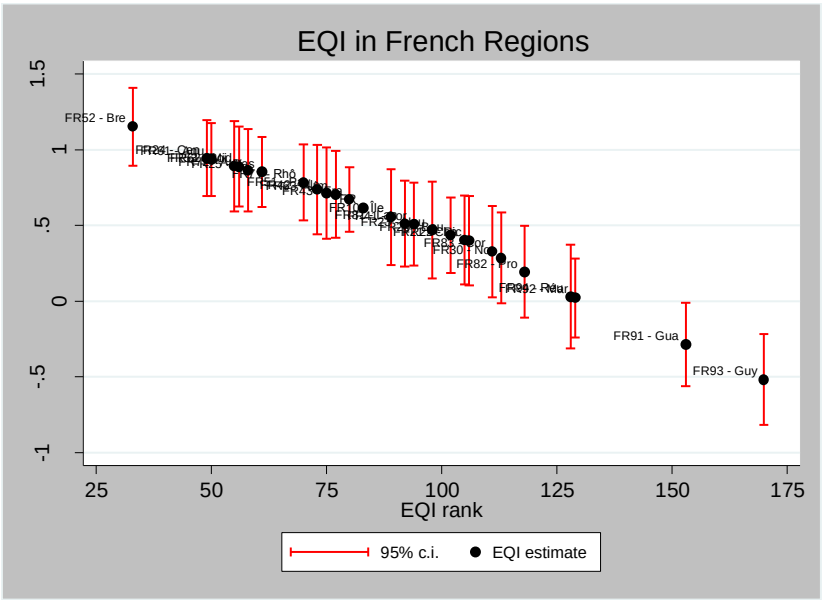


FIGURE 10, EQI IN NL, BE, FR AND REGIONAL VARIATION

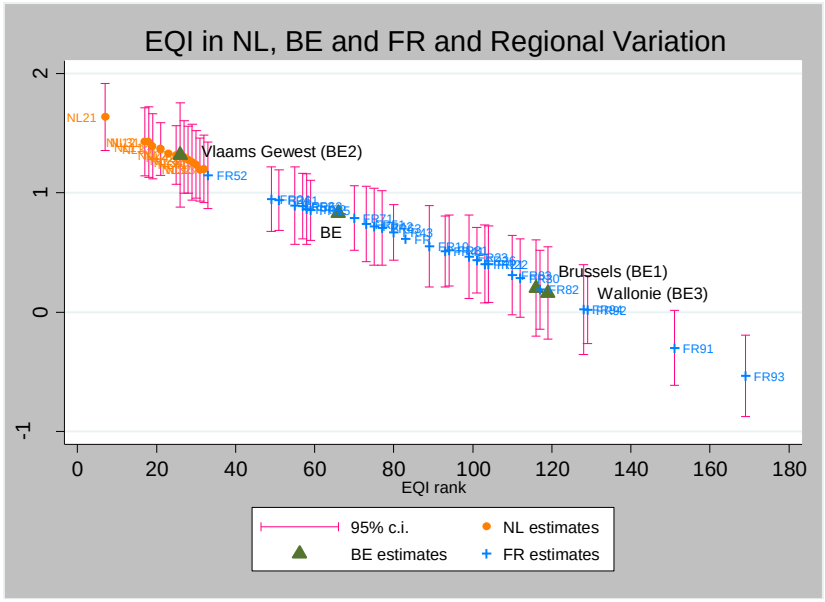
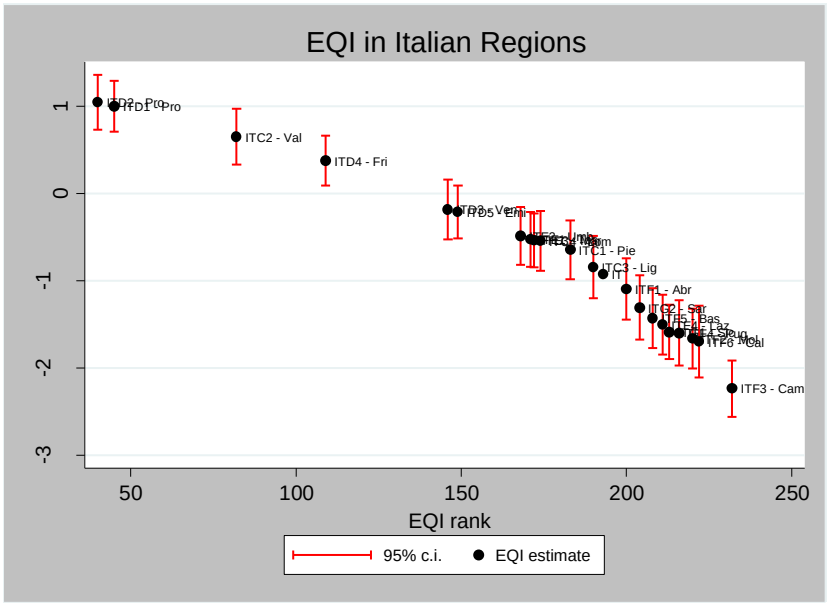


FIGURE 11, EQI IN ITALIAN REGIONS



Figures 8-11 show regional (and country) estimates along with margins of error. First, in Figure 8 shows regional variation among Dutch regions independently. Here there are meaningful administrative duties and popular elections at this level of sub-national government; yet we find no significant differences in any of the regional estimates.

In France (Figure 9), we observe one 'stand out' region, Brittany (FR51, *Bretagne),* which ranks significantly higher than 16 of the 26 regions in France. On the other end, a group oversees regions along with Provence-Alpes-Cote d'Azur and Corsica rank significantly lower than most other region in the country.

Figure 10 shows the Belgian regions in the context of two of its neighboring countries with similar languages from the first two figures. We find that the French speaking regions of Wallonie and Brussles much closer resemble the lower third of French regions in terms of QoG, while Flanders (BE2, *Vlaams Gewest*) is nest within the grouping of Dutch regions. We see that meaningful distinctions are not found in only countries with many regions, as we see the Flemish region of Vlaams Gewest – ranked among the highest in Europe - significantly higher than the other two majority French-speaking regions, Brussels and Wallonie; putting very much into question the utility of a national level estimate for a country like Belgium. These are consistent findings with the previous round of data.

Figure 11 shows the country with the most significant regional variation, Italy. We see in Italy, there are 4-5 groups of regions, with a number of small regions in the north (Bolzano, Trento, etc.) that rank among the top 20% of all regions in the sample, while southern regions, in particular Campania, rank among the lowest in Europe.

Conclusions

This report does not attempt to provide an exhaustive analysis of the new round of data, but simply an overview of several of the more salient aspect of the survey, data, methods and results around the latest round of the EQI. The data is provided free for scholarly use and is intended for researcher and/or policy makers interested in going beyond national level comparisons for several aspects of quality of government. The EQI (both in 2010 and 2013) offers for the first time subnational level metrics of QoG which can be used to compare regions within and across countries. Country level estimates are also provided and can be compared with regional estimates when appropriate. Moreover, as was shown briefly here, there are distinctions in aspects of QoG across public sector services. Thus scholars looking to distinguish and compare various aspects of QoG; such as impartiality, quality, or corruption experiences and/or perceptions in different public sectors across Europe (health care, education, law enforcement, elections, etc.) can do so using this data. We see evidence here that although the broad concepts and services in which the indicators of the regional index are composed relate significantly, they do vary as well - Europeans make dis-

tinctions in QoG between education and health care as well as overall quality and corruption of services for example.

This report began with a discussion of the survey data and sample on which the EQI data is primarily built for 206 NUTS1 and NUTS2 regions. As QoG is a broad and abstract concept, the survey is wide in scope – it is focused on citizens (as opposed to experts) and primarily captures their perceptions and experiences with *corruption*, *quality* and the extent to which three primarily regionally administered (oftentimes) public services are delivered *impartially* – education, health care and law enforcement. In addition, the index includes a question about elections and media impartiality. The regional data is centered on national level estimates of QoG provided by Kaufman et al (2009), and the methodology for doing so was briefly taken up here.

Several new countries and regions were added to the 2013 round of data and the data no include all EU28 countries as well as Turkey and Serbia/Kosovo. Yet, the results for 2013 are remarkably consistent with the sample from 2010 and, although there are several noticeable changes in certain cases, the two rounds of EQI data correlate at 0.94. The data are highly robust to alterations in the construction of the index.

We find, as in 2010, that after considering the margins of error around the estimates, that regional variation within countries varies significantly. Again, Italy is found to be the country with the widest divergences, and in 2013, followed by Turkey and France. Several others, such as Belgium, Spain, Portugal and Bulgaria all have significant QoG variation among their regions. On the other hand, countries such as Denmark, Netherlands, Sweden, and Slovakia have no noticeable within country variation. Even federal countries such as Germany and Austria display vary narrow margins among their regions. Thus we argue that in some cases, national level estimates of QoG may be appropriate (when countries have no significant regional variation), but at other times, the national level estimates can be very misleading, under (over)-representing strong (weak) regions.

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APPENDICES

Appendix 1

TABLE A.1: FULL SAMPLE, EQI 2013 SCORES AND MARGINS OF ERROR

nuts	name	EQI 2013	margin13	low95ci	hi95ci	EQI10013
AT	Austria	0.923				65.84
AT11	Burgenland	1.048	0.324	0.724	1.373	68.14
AT12	Niederöstrerreich	1.109	0.223	0.886	1.332	69.26
AT13	Wien	0.466	0.248	0.218	0.713	57.43
AT21	Kärnten	0.870	0.338	0.532	1.209	64.87
AT22	Steiermark	1.118	0.216	0.902	1.334	69.43
AT31	Oberösterreich	0.991	0.215	0.776	1.205	67.08
AT32	Salzburg	0.870	0.444	0.426	1.314	64.87
AT33	Tirol	1.373	0.260	1.112	1.633	74.11
AT34	Voralberg	0.525	0.532	-0.007	1.057	58.52
BE	Belgium	0.831				64.15
BE1	Brussels	0.202	0.404	-0.202	0.605	52.58
BE2	Vlaams Gewest	1.318	0.436	0.881	1.754	73.09
BE3	Wallonie	0.161	0.388	-0.227	0.549	51.83
BG	Bulgaria	-1.576				19.89
BG31	Severozapaden	-2.020	0.461	-2.481	-1.560	11.73
BG32	Severen Tsentralen	-1.391	0.433	-1.824	-0.959	23.29
BG33	Severoiztochen	-0.111	0.596	-0.707	0.485	46.83
BG34	Yugoiztochen	-1.592	0.397	-1.988	-1.195	19.61
BG41	Yugozapaden	-2.598	0.533	-3.131	-2.065	1.11
BG42	Yuzhen Tsentralen	-0.940	0.515	-1.455	-0.426	31.58
CY	Cyprus	0.230				53.10
CZ	Czech Rep.	-0.300				43.35
CZ01	Praha	-0.336	0.227	-0.563	-0.109	42.69
CZ02	Stredni Cechy	-0.285	0.153	-0.438	-0.132	43.63
CZ03	Jihozapad	-0.136	0.188	-0.324	0.053	46.38
CZ04	Severozapad	-0.820	0.175	-0.995	-0.644	33.80
CZ05	Severovychod	-0.183	0.183	-0.366	0.001	45.51
CZ06	Jihovychod	-0.065	0.184	-0.250	0.119	47.67
CZ07	Stedni Morava	-0.250	0.207	-0.457	-0.043	44.27

CZ08	Moravskoslezsko	-0.468	0.188	-0.657	-0.280	40.26
DE	Germany	0.852				64.53
DE1	Baden Wuttemberg	0.980	0.238	0.742	1.219	66.89
DE2	Bavaria	1.045	0.243	0.802	1.287	68.07
DE3	Berlin	0.470	0.291	0.179	0.761	57.51
DE4	Brandenburg	0.573	0.368	0.205	0.942	59.41
DE5	Bremen	0.834	0.372	0.461	1.206	64.19
DE6	Hamburg	0.767	0.255	0.511	1.022	62.96
DE7	Hessen	0.840	0.268	0.573	1.108	64.32
DE8	Mecklenburg-Vorpommen	0.831	0.311	0.520	1.142	64.15
DE9	Lower Saxony	1.062	0.255	0.807	1.317	68.40
DEA	North Rhine Westphalia	0.710	0.319	0.391	1.029	61.92
DEB	Rhineland-Palatinate	1.026	0.283	0.743	1.309	67.73
DEC	Saarland	1.019	0.376	0.642	1.395	67.60
DED	Saxony	0.788	0.272	0.516	1.060	63.36
DEE	Saxony-Anhalt	0.375	0.353	0.022	0.727	55.76
DEF	Schleswig-Holstein	1.092	0.334	0.758	1.426	68.94
DEG	Thuringia	0.488	0.333	0.155	0.821	57.84
DK	Denmark	1.659				79.37
DK01	Hovedstaden	1.631	0.243	1.388	1.873	78.85
DK02	Sjaelland	1.447	0.273	1.173	1.720	75.47
DK03	Syddanmark	1.689	0.267	1.422	1.957	79.93
DK04	Midtylland	1.761	0.238	1.523	1.998	81.24
DK05	Nordjylland	1.756	0.207	1.549	1.963	81.15
EE	Estonia	0.131				51.28
ES	Spain	0.131				51.28
ES11	Galicia	-0.404	0.278	-0.681	-0.126	41.45
ES12	Principado de Asturias	0.596	0.315	0.282	0.911	59.83
ES13	Cantabria	0.573	0.235	0.338	0.808	59.40
ES21	Pais Vasco	0.446	0.379	0.067	0.824	57.07
ES22	Comunidad Foral de Navarra	0.423	0.266	0.156	0.689	56.64
ES23	La Rioja	0.536	0.266	0.271	0.802	58.73
ES24	Aragón	0.262	0.234	0.028	0.496	53.69
ES30	Comunidad de Madrid	0.419	0.335	0.084	0.754	56.57
ES41	Castilla y León	0.401	0.225	0.176	0.625	56.23
ES42	Castilla-La Mancha	-0.093	0.213	-0.306	0.120	47.16
ES43	Extremadura	0.298	0.238	0.060	0.536	54.35
ES51	Cataluña	-0.051	0.280	-0.330	0.229	47.94
ES52	Comunidad Valenciana	-0.151	0.292	-0.443	0.141	46.10
ES53	Illes Balears	0.112	0.286	-0.174	0.398	50.93
ES61	Andalucia	0.018	0.254	-0.236	0.272	49.20

ES62	Región de Murcia	0.490	0.279	0.211	0.769	57.88
ES63	Ciudad Autónoma de Ceuta (ES)					
ES64	Ciudad Autónoma de Melilla (ES)					
ES70	Canarias (ES)	-0.207	0.267	-0.474	0.059	45.06
FI	Finland	1.583				77.97
FI13	Itä-Suomi	1.485	0.251	1.234	1.736	76.17
FI18	Etelä-Suomi	1.598	0.246	1.352	1.844	78.25
FI19	Länsi-Suomi	1.568	0.262	1.306	1.830	77.70
FI1A	Pohjois-Suomi	1.596	0.269	1.327	1.865	78.20
FI20	Åland	2.781	0.292	2.489	3.074	100.00
FR	France	0.615				60.18
FR10	Ile-de-France	0.552	0.341	0.211	0.893	59.01
FR21	Champagne-Ardenne	0.403	0.326	0.077	0.729	56.28
FR22	Picardie	0.403	0.321	0.082	0.724	56.28
FR23	Haute-Normandie	0.466	0.350	0.116	0.816	57.43
FR24	Centre	0.948	0.272	0.676	1.220	66.30
FR25	Basse-Normandie	0.855	0.252	0.603	1.107	64.59
FR26	Bourgogne	0.435	0.275	0.159	0.710	56.86
FR30	Nord - Pas-de-Calais	0.286	0.327	-0.042	0.613	54.12
FR41	Lorraine	0.510	0.298	0.211	0.808	58.24
FR42	Alsace	0.716	0.322	0.394	1.039	62.04
FR43	Franche-Comte	0.668	0.233	0.435	0.901	61.14
FR51	Pays de la Loire	0.739	0.317	0.421	1.056	62.45
FR52	Bretagne	1.146	0.279	0.867	1.425	69.94
FR53	Poitou-Charentes	0.893	0.324	0.569	1.217	65.28
FR61	Aquitaine	0.939	0.254	0.685	1.192	66.13
FR62	Midi-Pyrenees	0.890	0.274	0.616	1.164	65.24
FR63	Limousin	0.706	0.311	0.395	1.017	61.85
FR71	Rhone-Alpes	0.788	0.271	0.517	1.060	63.36
FR72	Auvergne	0.862	0.296	0.567	1.158	64.73
FR81	Languedoc-Roussillon	0.517	0.297	0.220	0.814	58.37
FR82	Provence-Alpes-Cote d'Azur	0.188	0.330	-0.142	0.518	52.33
FR83	Corse	0.312	0.333	-0.021	0.645	54.60
FR91	Guadeloupe	-0.300	0.315	-0.615	0.016	43.36
FR92	Martinique	0.021	0.286	-0.265	0.307	49.25
FR93	Guyane	-0.534	0.343	-0.877	-0.191	39.05
FR94	Reunion	0.022	0.376	-0.354	0.398	49.27
GR	Greece	-0.958				31.26
GR1	Voreia Ellada	-0.906	0.314	-1.220	-0.592	32.22
GR2	Kentriki Ellada	-0.980	0.339	-1.319	-0.641	30.86
GR3	Attica	-1.073	0.400	-1.473	-0.673	29.14

GR4	Nisia Aigaiou-Kriti	-0.653	0.309	-0.962	-0.345	36.86
HR	Croatia	-1.182		-1.182	-1.182	27.14
HR01	Sjeverozapadna Hrvatska					
HR02	Sredisnja i Istocna Hrvatska					
HR03	Jadranska Hrvatska	-1.280	0.399	-1.678	-0.881	25.34
HR04	Kontinentalna Hrvatska	-1.134	0.374	-1.508	-0.759	28.03
HU	Hungary	-0.572				38.36
HU1	Közép-Magyarország	-0.764	0.393	-1.157	-0.371	34.82
HU2	Dunántúl	-0.374	0.328	-0.702	-0.047	41.99
HU3	Észak és Alföld	-0.578	0.330	-0.908	-0.248	38.24
IE	Ireland	0.798				63.55
IE01	Border, Midland and Western	0.906	0.369	0.537	1.275	65.53
IE02	Southern and Eastern	0.758	0.252	0.507	1.010	62.81
IT	Italy	-0.930				31.77
ITC1	Piemonte	-0.652	0.365	-1.017	-0.287	36.88
ITC2	Valle d'Acosta	0.653	0.350	0.303	1.003	60.88
ITC3	Ligura	-0.848	0.381	-1.229	-0.467	33.28
ITC4	Lombardia	-0.542	0.371	-0.913	-0.170	38.91
ITD1	Bolzano	1.005	0.321	0.684	1.326	67.34
ITD2	Trento	1.043	0.339	0.703	1.382	68.04
ITD3	Veneto	-0.186	0.364	-0.550	0.179	45.46
ITD4	Friuli-Venezia Giulia	0.373	0.311	0.062	0.685	55.74
ITD5	Emilia-Romagna	-0.217	0.328	-0.546	0.111	44.88
ITE1	Toscana	-0.533	0.335	-0.868	-0.198	39.07
ITE2	Umbria	-0.495	0.353	-0.848	-0.142	39.77
ITE3	Marche	-0.535	0.327	-0.862	-0.209	39.03
ITE4	Lazio	-1.512	0.362	-1.874	-1.150	21.08
ITF1	Abruzzo	-1.097	0.378	-1.475	-0.719	28.71
ITF2	Molise	-1.661	0.371	-2.032	-1.290	18.34
ITF3	Campania	-2.242	0.345	-2.587	-1.897	7.65
ITF4	Puglia	-1.604	0.396	-2.000	-1.208	19.38
ITF5	Basilicata	-1.423	0.375	-1.798	-1.047	22.72
ITF6	Calabria	-1.687	0.443	-2.130	-1.245	17.85
ITG1	Sicilia	-1.588	0.333	-1.922	-1.255	19.67
ITG2	Sardegna	-1.307	0.387	-1.695	-0.920	24.84
LT	Lithuania	-0.612				37.62
LU	Luxembourgh	1.320				73.14
LV	Latvia	-0.669				36.58
MT	Malta	0.195				52.46
NL	Netherlands	1.326				73.25
NL11	Groningen	1.390	0.273	1.117	1.662	74.42

NL12	Friesland (NL)	1.428	0.286	1.142	1.714	75.12
NL13	Drenthe	1.201	0.282	0.919	1.482	70.94
NL21	Overijssel	1.636	0.281	1.356	1.917	78.96
NL22	Gelderland	1.316	0.246	1.071	1.562	73.07
NL23	Flevoland	1.277	0.282	0.995	1.559	72.35
NL31	Utrecht	1.426	0.296	1.130	1.722	75.08
NL32	Noord-Holland	1.196	0.264	0.932	1.460	70.86
NL33	Zuid-Holland	1.368	0.222	1.145	1.590	74.02
NL34	Zeeland	1.257	0.318	0.939	1.575	71.97
NL41	Noord-Brabant	1.238	0.284	0.955	1.522	71.63
NL42	Limburg (NL)	1.301	0.304	0.997	1.605	72.79
PL	Poland	-0.453				40.53
PL11	Lodzkie	-0.563	0.354	-0.917	-0.210	38.51
PL12	Mazowieckie	-0.614	0.375	-0.988	-0.239	37.59
PL21	Malopolskie	-0.330	0.352	-0.682	0.021	42.80
PL22	Slaskie	-0.722	0.385	-1.107	-0.337	35.59
PL31	Lubelskie	-0.458	0.317	-0.775	-0.142	40.44
PL32	Podkarpackie	-0.582	0.340	-0.922	-0.242	38.17
PL33	Swietokrzyskie	-0.508	0.327	-0.835	-0.181	39.53
PL34	Podlaskie	-0.157	0.331	-0.488	0.174	45.98
PL41	Wielkopolskie	-0.437	0.277	-0.714	-0.159	40.84
PL42	Zachodniopomorskie	-0.312	0.383	-0.695	0.071	43.13
PL43	Lubuskie	-0.195	0.354	-0.548	0.159	45.29
PL51	Dolnoslaskie	-0.728	0.382	-1.110	-0.346	35.49
PL52	Opolskie	-0.001	0.320	-0.320	0.319	48.86
PL61	Kujawsko-Pomorskie	-0.042	0.385	-0.428	0.343	48.09
PL62	Warminsko-Mazurskie	-0.266	0.373	-0.639	0.108	43.99
PL63	Pomorskie	-0.184	0.387	-0.571	0.202	45.48
PT	Portugal	0.053				49.85
PT11	Norte	-0.121	0.420	-0.541	0.299	46.64
PT15	Algarve	0.337	0.224	0.114	0.561	55.07
PT16	Centro	0.049	0.366	-0.317	0.415	49.78
PT17	Lisboa	-0.063	0.291	-0.354	0.227	47.71
PT18	Alentejo	1.004	0.200	0.804	1.205	67.34
PT20	Região Autónoma dos Açores	0.618	0.338	0.280	0.956	60.23
PT30	Região Autónoma da Madeira	0.118	0.395	-0.277	0.513	51.04
RO	Romania	-1.649				18.55
RO11	Nord-Vest	-1.630	0.562	-2.191	-1.068	18.91
RO12	Centru	-1.064	0.504	-1.567	-0.560	29.32
RO21	Nord-Est	-1.672	0.485	-2.157	-1.187	18.13
RO22	Sud-Est	-1.931	0.578	-2.509	-1.353	13.37

RO31	Sud-Muntenia	-1.478	0.524	-2.001	-0.954	21.70
RO32	Bucuresti-Ilfov	-2.227	0.669	-2.896	-1.558	7.93
RO41	Sud-Vest Oltenia	-1.659	0.532	-2.191	-1.127	18.37
RO42	Vest	-1.591	0.544	-2.135	-1.047	19.62
RS	Serbia	-1.822				15.37
RS11	Belgrade	-2.223	0.320	-2.543	-1.903	8.00
RS21	Šumadija and Western Serbia	-1.831	0.317	-2.147	-1.514	15.21
RS22	Vojvodina	-1.811	0.530	-2.341	-1.281	15.58
RS22	Southern and Eastern Serbia	-1.854	0.492	-2.347	-1.362	14.78
RS23	Kosovo and Metohija	-1.353	0.654	-2.007	-0.699	23.99
SE	Sweden	1.496				76.38
SE1	Östra Sverige	1.536	0.347	1.189	1.883	77.11
SE2	Södra Sverige	1.509	0.273	1.236	1.782	76.62
SE3	Norra Sverige	1.380	0.323	1.057	1.703	74.24
SI	Slovenia	-0.020				48.50
SK	Slovakia	-0.541				38.93
SK01	Bratislavský kraj	-0.646	0.234	-0.880	-0.413	36.99
SK02	Západné Slovensko	-0.434	0.221	-0.655	-0.213	40.89
SK03	Stredné Slovensko	-0.444	0.219	-0.663	-0.225	40.71
SK04	Východné Slovensko	-0.707	0.238	-0.945	-0.470	35.87
TR	Turkey	-1.493				21.42
TR1	Istanbul	-2.608	0.235	-2.843	-2.372	0.93
TR2	Bati Marmara	0.147	0.422	-0.275	0.568	51.57
TR3	Ege	-2.358	0.454	-2.812	-1.904	5.51
TR4	Dogu Marmara	-1.385	0.305	-1.690	-1.080	23.40
TR5	Bati Anadolu	-2.658	0.366	-3.025	-2.292	0.00
TR6	Akdeniz	-1.056	0.393	-1.449	-0.663	29.45
TR7	Orta Anadolu	-0.887	0.280	-1.167	-0.607	32.56
TR8	Bati Karadeniz	-0.070	0.392	-0.462	0.322	47.58
TR9	Dogu Karadeniz	0.127	0.332	-0.205	0.459	51.21
TRA	Kuzeydogu Anadolu	-0.491	0.345	-0.836	-0.146	39.84
TRB	Ortadogu Anadolu	-1.897	0.411	-2.308	-1.486	14.00
TRC	Güneydogu Anadolu	-0.475	0.368	-0.843	-0.107	40.13
UK	United Kingdom	0.803				63.64
UKC	Northeast England	0.705	0.181	0.524	0.886	61.83
UKD	Northwest England	0.853	0.244	0.609	1.097	64.55
UKE	Yorkshire-Humber	0.936	0.193	0.743	1.129	66.07
UKF	East Midland England	0.689	0.195	0.493	0.884	61.54
UKG	West Midland England	0.655	0.190	0.465	0.845	60.91
UKH	East of England	0.907	0.166	0.740	1.073	65.54
UKI	London	1.003	0.183	0.820	1.186	67.31

UKJ	South East England	1.062	0.245	0.817	1.307	68.39
UKK	South West England	0.522	0.200	0.322	0.722	58.47
UKL	Wales	0.389	0.328	0.061	0.718	56.03
UKM	Scotland	0.615	0.287	0.328	0.902	60.18
UKN	N. Ireland	0.731	0.194	0.537	0.926	62.31

Note: EQI10013 is the EQI score re-scaled from 0-100.

Appendix 2: Supplemental materials and underlying data correlations

TABLE A.2: PAIRWISE CORRELATIONS

VARIABLE	**RegQoGindex**	***Ed. Qual.***	***Hel. Qual.***	***Law Qual.***	***Ed. Impart1***	***Hel. Impart1***	***Law Impart1***	***Ed. Impart2***	***Hel. Impart2***
RegQoGindex	1.00								
Ed. Qual.	0.66	1.00							
Health Qual.	0.71	0.64	1.00						
Law Qual.	0.72	0.68	0.66	1.00					
Ed. Impart1	0.74	0.37	0.31	0.46	1.00				
Health Impart1	0.82	0.32	0.59	0.55	0.80	1.00			
Law Impart1	0.86	0.41	0.46	0.57	0.84	0.77	1.00		
Ed. Impart2	0.81	0.54	0.41	0.53	0.72	0.73	0.68	1.00	
Health Impart2	0.79	0.49	0.73	0.56	0.46	0.78	0.51	0.75	1.00
Law Impart2	0.85	0.44	0.39	0.65	0.72	0.73	0.83	0.82	0.63
Ed. Cor.	0.75	0.45	0.37	0.25	0.62	0.54	0.75	0.64	0.45
Health Cor.	0.85	0.50	0.72	0.43	0.49	0.71	0.69	0.57	0.75
Law Cor.	0.86	0.44	0.42	0.50	0.69	0.70	0.91	0.68	0.52
Others Cor.	0.90	0.45	0.65	0.47	0.62	0.79	0.74	0.68	0.79
Bribe	0.70	0.29	0.54	0.15	0.11	0.36	0.33	0.17	0.44
Elections	0.58	0.36	0.39	0.62	0.71	0.55	0.72	0.56	0.35
Media	0.51	0.52	0.26	0.44	0.39	0.35	0.40	0.60	0.43

VARIABLE	***Law Impart2***	***Ed. Cor.***	***Health Cor.***	***Law Cor.***	***Others Cor.***	***Bribe***	***Elections***	***Media***	
Ed. Qual.									
Health Qual.									
Law Qual.									
Ed. Impart1									
Health Impart1									
Law Impart1									
Ed. Impart2									
Health Impart2									
Law Impart2	1.00								
Ed. Cor.	0.56	1.00							
Health Cor.	0.56	0.77	1.00						
Law Cor.	0.83	0.84	0.78	1.00					
Others Cor.	0.72	0.72	0.90	0.79	1.00				
Bribe	0.26	0.50	0.74	0.49	0.64	1.00			
Elections	0.72	0.39	0.37	0.63	0.51	0.07	1.00		
Media	0.52	0.32	0.33	0.38	0.45	0.02	0.54	1.00	

Note: pairwise Pearson correlations reported. Bold numbers represent 99% significance (p<0.01). See discussion of questions in section 2 for abbreviations of each question/indicator.

TABLE A.3: PAIRWISE CORRELATIONS OF REGIONAL INDEX AND THREE PILLARS

	Regional Index	Quality	Impartiality	Corruption
Regional Index	1.00			
Quality	0.87	1.00		
Impartiality	0.93	0.73	1.00	
Corruption	0.87	0.59	0.76	1.00

Note: pairwise Pearson correlations reported. Bold numbers represent 99% significance (p<0.01).

FIGURE A.1: SCATTERPLOT OF MOST DIFFERENT QOG PILLARS

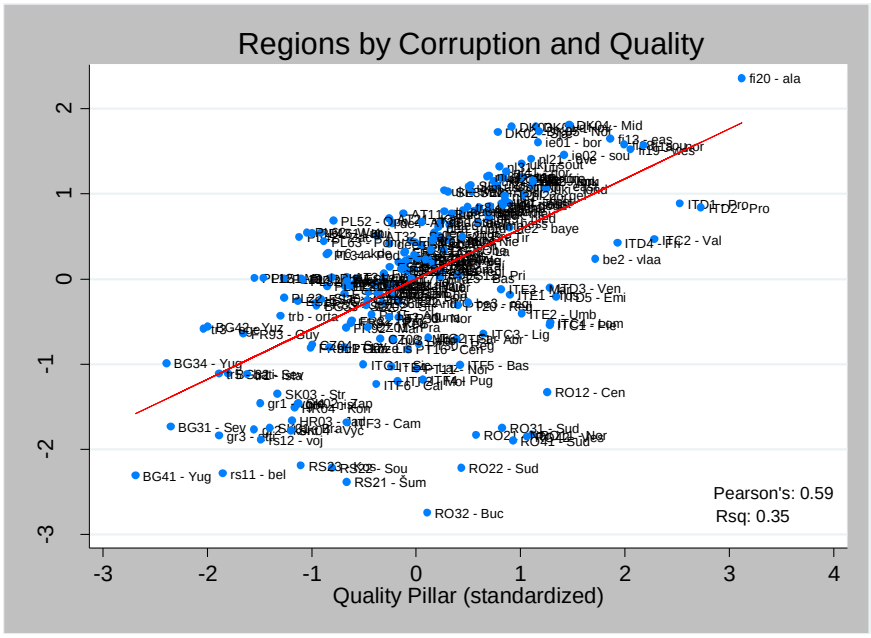


TABLE A.4: SUMMARY RESULTS OF FACTOR ANALYSIS AND WEIGHTS

	Factor			Weights		
Variable	1	2	3	weight within group	total factor weight	total Eq. Weight
Edqual			0.78	0.241	0.070	0.067
HelQual			0.67	0.207	0.060	0.067
LawQual			0.8	0.248	0.072	0.067
election			0.39	0.121	0.035	0.067
media			0.59	0.183	0.053	0.067
EdCorr		0.59		0.168	0.053	0.067
HelCorr		0.84		0.239	0.076	0.067
LawCorr		0.5		0.142	0.045	0.067
OthersCorr		0.69		0.196	0.062	0.067
BRIBE		0.9		0.256	0.081	0.067
EdImpart1	0.9			0.206	0.081	0.056
HelImpart1	0.69			0.158	0.062	0.056
LawImpart1	0.86			0.197	0.077	0.056
EdImpart2	0.73			0.167	0.066	0.056
HelImpart2	0.36			0.083	0.032	0.056
LawImpart2	0.82			0.188	0.074	0.056
prop total VAR	0.3635	0.2365	0.195	1	1	1
w/in factor total	4.36	3.52	3.23			

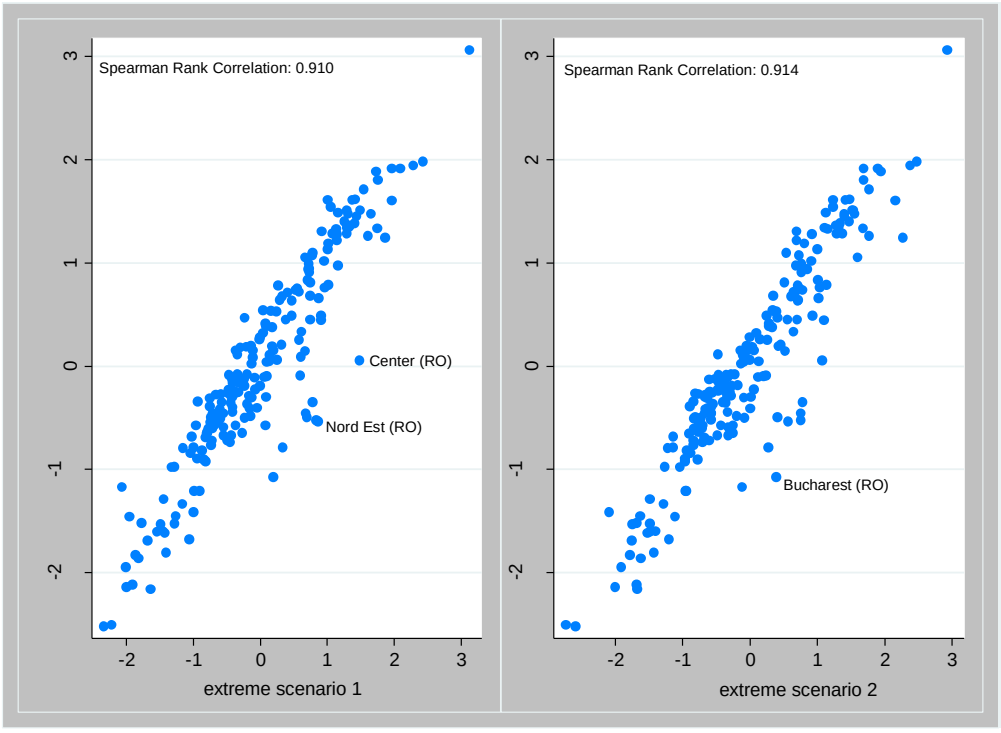
Appendix 3: Sensitivity Analysis

TABLE A.5: RESULTS OF SENSITIVITY TESTING FOR REGIONAL LEVEL DATA

Scenario Rank	Aggregation	Weighting	Excluded Indicator	Exclued Dem. Group	Normalization Method	Median shift	Max shift	Max Region	Spearman Rank Coefficient
Reg. QoG Index	Arithmetic	Equal	none	none	Standardized	0	0	0	1
1	Arithmetic	Equal	Corruption Pillar	Males	Standardized	11	106(+)	Nord Est (RO)	0.910
2	Arithmetic	Equal	Corruption Pillar	High Income	Standardized	10.5	107(+)	Bucharest (RO)	0.914
3	Arithmetic	Equal	Quality pillar	High Income	Standardized	9	97(+)	Ege (TR)	0.931
4	Arithmetic	Equal	Corruption Pillar	18-29	Standardized	9	98(+)	Bucharest (RO)	0.931
5	Arithmetic	Equal	Corruption Pillar	<2ndary Ed.	Standardized	9.5	88(+)	Sud-Est (RO)	0.932
6	Arithmetic	Equal	Impartiality pillar	<2ndary Ed.	Standardized	8	87(-)	Dogu Karadeniz (TR)	0.934
7	Arithmetic	Equal	Quality pillar	Males	Standardized	11	79(+)	Ortadogu Anadolu (TR)	0.934
8	Arithmetic	Equal	Bribe Indicator	none	Standardized	8	86(+)	Sud-Est (RO)	0.945
9	Arithmetic	Equal	Quality pillar	18-29	Standardized	8.5	74(+)	Yuzhen Tsentralen (BG)	0.947
10	Geometric	Equal	Corruption Pillar	none	Standardized	8	85(+)	Sud-Est (RO)	0.947
11	Geometric	Factor	Corruption Pillar	none	Min-Max	8	81(+)	Bucharest (RO)	0.948
12	Arithmetic	Factor	Corruption Pillar	none	Standardized	8	80(+)	Bucharest (RO)	0.949

Note: total of 206 regions, with 1st scenario representing the final index. These are the 12 scenarios LEAST like the aggregated regional QoG index used to build the EQI. A total of 72 scenarios were conducted.

FIGURE A.2 SACTTERPLOTS OF TWO MOST EXTREME SCENARIOS FROM SENSITIVITY TESTS



Note: for details of the alterations made in the two scenarios, see Table A.4

Appendix 4: The Complete Survey

1. Have you or any of your immediate family been enrolled or employed in the public school system in your area in the past 12 months? (1 yes, 2 no)

[Volunteer – Do Not Read]

99 Don't know/Refused

2. In the past 12 months have you or anyone in your immediate family used public health care services in your area? (1 yes, 2 no)

[Volunteer – Do Not Read]

99 Don't know/Refused

3. Have you or anyone in your immediate family had any recent contact (positive or negative) with the security or police forces in your area in the past 12 months? (1 yes, 2 no)

[Volunteer – Do Not Read]

99 Don't know/Refused

Questions 4-6 deal with your opinion of the quality of services in your area, please rate the following from (0-10, with '0' being very poor and '10' being excellent quality)

[Volunteer – Do Not Read]

99 Don't know/Refused

4. How would you rate the quality of public education in your area?

5. How would you rate the quality of the public health care system in your area?

6. How would you rate the quality of the police force in your area?

Please respond to the following 3 questions on a scale of 0-10, with 0 being 'strongly disagree' and 10 being 'strongly agree'

[Volunteer – Do Not Read]

99 Don't know/Refused

7. "Certain people are given special advantages in the public education system in my area."

8. "Certain people are given special advantages in the public health care system in my area."

9. "The police force gives special advantages to certain people in my area."

Please respond to the following 3 questions with 'Agree, rather agree, rather disagree or Disagree'

[Volunteer – Do Not Read]

99 Don't know/Refused

10. "all citizens are treated equally in the public education system in my area"

11. "all citizens are treated equally in the public health care system in my area"

12. "all citizens are treated equally by the police force in my area"

In this survey we define <u>corruption</u> to mean 'the abuse of entrusted public power for private gain'. This abuse could be by any public employee or politician and the private gain might include money, gifts or other benefits. With this in mind, please respond to the following 3 questions on corruption with a scale of 0-10, with '0' being "strongly disagree" and '10' being "strongly agree"

[Volunteer – Do Not Read]

99 Don't know/Refused

13. "Corruption is prevalent in my area's local public school system"

14. "Corruption is prevalent in the public health care system in my area"

15. "Corruption is prevalent in the police force in my area"

16. In the past 12 months have you or anyone living in your household paid a bribe in any form to:

a. Education services?(1 yes/ 2 no)

b. Health or medical services? (1 yes/ 2 no)

c. Police? (1 yes/ 2 no)

d. Any other government-run agency? (1 yes/ 2 no)

[Volunteer – Do Not Read]

99 Don't know/Refused

17. In your opinion, how often do you think other people in your area use bribery to obtain other special advantages that they are not entitled to? (0 never - 10 Very frequently)

[Volunteer – Do Not Read]

99 Don't know/Refused

Please respond to the following 2 questions with the following ('0' strongly disagree - '10' strongly agree)

[Volunteer – Do Not Read]

99 Don't know/Refused

18. Corruption is NOT present in elections in my area.

19. I trust the information provided by the local mass media in reporting on matters of politics and public services in my area.

20. "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people in your area?"

1. "Most people can be trusted"

2. "Can't be too careful"

[Volunteer – Do Not Read]

99 Don't know/Refused

21. Which statement comes closer to your own views? *1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between*

21**a**.

1 ("In business most people can succeed if they are willing to work hard")

10 ("Hard work is no guarantee of success in business for most people

– it's more a matter of luck and connections")

[Volunteer – Do Not Read]

99 Don't know/Refused

21**b**.

1 ("In the public sector most people can succeed if they are willing to work hard")

10 ("Hard work is no guarantee of success in the public sector for most people

– it's more a matter of luck and connections")

[Volunteer – Do Not Read]

99 Don't know/Refused

22. How would you judge the current state of the economy in _____ (name of country)?

1. Very good

2. Somewhat good

3. Somewhat bad

4. Very bad

[Volunteer – Do Not Read]

99 Don't know/Refused

23. In politics, people sometimes talk of "left" and "right". Where would you place yourself on a scale from 1 to 7, where '1' means the extreme left and '7' means the extreme right?

Extreme Left 1 – 7 Extreme Right

[Volunteer – Do Not Read]

99 Don't know/Refused

24. What political party would you vote for if the national parliamentary election were today?

*****add a pre-coded list of all actual political parties (for each local version), including an "other" (not specified* [Volunteer – Do Not Read]*) and a "DK/refused"* [Volunteer – Do Not Read])**

25. Now imagine that that party was involved in a corruption scandal, which of the following would be most likely?

1. Still vote for preferred party

2. Vote for another established party not involved in the corruption scandal

3. Not vote at all

[Volunteer – Do Not Read]

99 Don't know/Refused

26. Is your first language (mother tongue) the same as the official language in your region?

1 Yes

2 No

[Volunteer – Do Not Read]

99 Don't know/Refused

(Further Demographic Questions)

D1. Indicate gender of respondent. **[DO NOT ASK, CODE ONE OPTION]**

1 Male

2 Female

D2. Please tell me what is the highest level in school you have completed?

[Please ask education level as you would normally do in your country by providing a scale or range of categories and then recode as follows below]

1-Elementary (primary) school or less (no diploma)

2-High (secondary) school (but did not graduated from it)

3-Graduation from high (secondary) school

4-Graduation from college, university or other third-level institute

5-Post-graduate degree (Masters, PHD) beyond your initial college degree

[Volunteer – Do Not Read]

99 Don't know/Refused

D3. Please tell me your age. ___ [**Note: If respondent refuses, ask: "Please tell me in which of the following age groups you belong?" before coding "Refused" (99)]**

1 18-29

2 30-49

3 50-64

4 65+

[Volunteered – Do Not Read]

99 Don't know/Refused

D4. Please tell me your average total household net income per month (after taxes). …. €

[Note: Ask income level by asking first open (we need it in euros) then if refused ask a scale (providing a scale or range of categories –at least 6 – to us as you would normally would in your country) and accept refusal only after providing a scale to respondent]

[Volunteered – Do Not Read]

99 Don't know/Refused

** Efficience3 will recode D4 in 3 categories (low, medium, high) at end of field **

D5. As far as your current occupation is concerned, would you say you work in the public sector (a public sector organization is either wholly owned by the public authorities or they have a majority share), the private sector or would you say that you are without a professional activity?

[READ OUT ITEMS IN BOLD - THEN ASK TO SPECIFY ("that is to say") - ONLY ONE ANSWER]

PUBLIC SECTOR

1- Military / Soldier
2- Law enforcement/ police/ fire-fighter
3- Health care worker/ doctor
4- Teacher, Academic, researcher
5- Other government agency

PRIVATE SECTOR

6- Self-employed / small business owner/ Freelancer
7- Other private sector employee

WITHOUT A PROFESSIONAL ACTIVITY

8- Currently unemployed
9- Housewife / Houseman
10- Pensioner, retired
11- Pupil / Student / Trainee
12- Other

D6. About how many people live in the place the interview was conducted?

[Recode as follows below]

1 Less than 10,000 (rural)

2 10,000-100,000 (small town or city)

3 100,000-1,000,000 (large city or urban area)

4 Greater than 1,000,000 (Very large city or urban area)

[Volunteered – Do Not Read]

99 Don't know/Refused

D7. Indicate NUTS region where the interview was conducted. **[DO NOT ASK, CODE FROM SAMPLE]**

[can be asked in order to recode NUTS region if sample does not contain info, this questions can be asked before Q1 for quotas management]

Thank you for your time and cooperation!