Measuring the formal and informal independence of National Statistical Offices

Jean-Guy Prévost, Université du Québec à Montréal^{*}

Annual Meeting of the Canadian Political Science Association (Vancouver, June 4, 2019)

SUMMARY

The issue of the professional independence of National Statistical Offices (NSOs) has become a major concern over the past two decades, inducing changes in statistical laws and the systematic adoption of codes of practice and quality frameworks. This paper seeks to assess and measure the formal and the informal aspects of professional independence of NSOs. To do this, we will rely on indexes developed by Cukierman (1992) for central banks and Gilardi (2005) for regulatory agencies. Among the formal dimensions of independence are: explicit mention of the principle of independence in law; definition of the statistical program; appointment procedures of the Chief Statistician, length of term and protection against dismissal; position of the SNB in the institutional architecture of the government; nature and powers of the supervisory body; pre-release policy; authority on the part of the NSOs to access government administrative data; level of budgetary discretion. Informal dimensions include the existence and implementation of codes of practice and of quality assurance frameworks, publicizing a data dissemination schedule, and control over technological infrastructure. The corpus to be examined is that of statistical laws and information contained on the websites of the statistical offices of the 35 OECD countries.

Résumé

La question de l'indépendance professionnelle des bureaux nationaux de statistique (BNS) est devenue depuis quelque deux décennies une préoccupation importante qui s'est traduite notamment par des modifications apportées aux lois statistiques (au Canada, en réponse à la « crise » du recensement) et l'adoption systématique de codes de bonnes pratiques et de pratiques d'assurance-qualité. L'objectif de cette communication est de présenter un index visant à évaluer et à mesurer aussi bien les aspects formels que les aspects informels de ce qui constitue l'indépendance professionnelle des statisticiens œuvrant au sein des BNS. Pour ce faire, nous nous appuierons sur les index développés par Cukierman et al. (1992) pour les banques centrales et par Gilardi (2005) pour les agences de régulation. Parmi les dimensions formelles de l'indépendance, relevons les suivantes: mention explicite du principe de l'indépendance dans la loi; définition du programme statistique; procédures de désignation du statisticien en chef, durée de son mandat et protection contre un renvoi; position du BNS dans l'architecture institutionnelle du gouvernement; nature et pouvoirs de l'organisme de supervision; politique d'accès préalable aux données; la possibilité d'accéder aux données administratives du gouvernement; le niveau de discrétion budgétaire. Parmi les dimensions informelles, mentionnons l'existence et la mise en œuvre de codes de bonnes pratiques, celles d'un cadre d'assurance-qualité, la publicisation et le respect d'un calendrier de dissémination des données, ainsi que le contrôle sur l'infrastructure technologique. Le corpus qui sera soumis à examen est des lois statistiques et de l'information contenue sur les sites web des bureaux de statistique des 35 pays de l'OCDE.

^{*} The author would like to thank Quentin Wallut, Ph.D. candidate, who has helped with all phases of the research.

1. THE ISSUE OF INDEPENDENCE

Independence has become an explicit concern of statistical agencies only recently. Significant milestones in this regard are the International Statistical Institute's *Declaration on Professional Ethics* (1985), the United Nations' *Declaration on the Fundamental Principles of Statistics* (1992), the *European Statistics Code of Practice* (2005), and the UN Economic and Social Council's *Generic Law on Official Statistics developed under the United Nations Development Account Project for the countries of Eastern Europe, Caucasus and Central Asia* (2016). Over these three decades, most countries have modernised their statistical legislation and, in many cases, have introduced dispositions regarding the professional and scientific independence of their central statistical office. Some of them have also devised their own, national code of statistical ethics. Changes in legislation with the aim of strengthening independence have sometimes been brought up by long lasting and sometimes acute confidence crises, as was the case for instance in the United Kingdom (2008) and Greece (2010) or, more recently, in Canada (2017).

Concerns over independence on the part of statisticians have risen as more statistical inquiries were designed to assess the outcomes of policies in various domains (health, education, etc.) and to provide data more closely connected to decision-making. These changes have occurred in all developed countries, but they may have been more obvious in Europe, where the drive for harmonization of statistics and methods has highlighted differences and made more visible the negotiations and compromises on which statistical work rests (Nivière, 2104). Debt and deficit statistics have notably emerged in this context as an instrument of discipline and a major locus of struggle (Savage, 2011; Lemoine, 2013), as the crisis over Greek statistics has shown. But in non-European developed countries as well, a new "regime of expertise" has emerged and NSOs are now devoting increased resources to the construction of indicators and activities more akin to benchmarking, ranking and accounting (Desrosières, 2014). The whole issue may at the same time be set against what has been described as "the rise of the unelected" (Vibert, 2007). In all developed countries, recent decades have seen a number of issues and areas traditionally located within the purview of elected officials and the executive being entrusted to so-called "independent authorities." Foremost among were of course central banks, whose independence became entrenched into law; a significant number of "independent authorities" and regulators have also been created in most countries from the 1980s on. Even though all these bodies sometimes radically differ from each other and the "independence" they are vested with varies considerably, the frequent use of the term testifies to the fact that in many areas political expediency and government discretion have become suspicious, if not unsustainable.

2. MEASURING INDEPENDENCE

Independence features explicitly or implicitly – in fact, more and more explicitly as we move forward in time – in all the supra-national instruments mentioned in the opening of this paper. However, this does not enlighten us very much with regard to the actual independence of national statistical offices (NSOs) enjoy in each country. In order to provide an assessment that

goes beyond the information that can be provided by case studies, we need to build a scale that allows for measuring independence and drawing comparisons.

Fortunately, we can draw inspiration from the work conducted by Cukierman, Webb, and Neyapti (1992) on the independence of central banks and that of Gilardi (2002, 2007) on that of regulatory agencies. Of course, central banks and regulatory agencies are quite different from NSOs. To begin with, they are directly and heavily involved in the implementation and/or monitoring of policy, while statistical agencies are normally confined to collection, dissemination and analysis (to a degree) of data. Central banks and regulatory agencies are also outside the perimeter of traditional public administration, while NSOs are normally located within the executive apparatus – though there are a number of exceptions, as we shall see. Nevertheless, measuring the independence of NSOs raises more or less the same methodological problems as those encountered by scholars concerned with central banks or regulators.

To begin with, there is the fact that independence is a complex notion that cannot be summarized by measuring only formal or legal dimensions. Besides legislation, which codifies the relations between NSO and government, we must take into account a certain number of instruments and practices that rather belong to a NSO's relations with the epistemic community to which it belongs. To this end, we have built, besides an index of legal or formal independence, one that seeks to capture more professional or informal dimensions of independence. Each of the dimensions we have identified as relevant to the measurement of independence raises in turn specific issues and problems, which we will describe in the following section.

The population of NSOs for which we have chosen to measure the degree of independence are those from the thirty-five OECD countries. The rationale for selecting the group of 35 OECD countries (rather than, say, all NSOs in the world) follows a number of criteria: (a) we wish to exclude countries where 'statistical capacity' is so weak that the issue of independence becomes irrelevant; this is the case of a number of developing countries, notably in Africa, where building such a capacity is indeed the paramount challenge for NSOs (Jerven, 2013); (b) we also wish to exclude countries where the issue of statistical independence is subsumed under that, more general, of the absence or weakness of democratic institutions (China, Russia and other overtly authoritarian regimes come to mind); (c) OECD countries - not all exemplary, of course, with regard to criterion (b), if one thinks of recent involutions regarding the separation of powers in Hungary, Poland, or Turkey – are, as a group, engaged in a dynamic of statistical harmonization and standardization where the organization acts both as an aggregator of data from the member countries and an assessor of their quality; (d) even more engaged in such processes (of harmonization, standardization, aggregation and evaluation) are the subset of European countries, where Eurostat has driven the 'independence agenda' with characteristic vigour since the early 2000s; (e) but OECD also provides us with a number of non-European countries (Australia, Canada, Chile, Japan, the U.S.,[†] etc.) which present, regarding these issues, a different profile and allow for comparison.

[†] In the case of the United States, where the statistical system is largely decentralized (with some seventy agencies), attention will be restricted to the Census Bureau, which is by far the largest and, besides the census and population data in general, also deals with a lot of economic, business, employment and social statistics. Another significant

<u>3. TWO SCALES OF INDEPENDENCE</u>

We have thus built two scales of independence, which we designate as formal and informal independence. Formal independence (A) refers to six dimensions, which have a statutory, legal character and are thus codified in national legislation. These dimensions are: (1) the explicit mention of the principle of independence in statistical legislation; (2) the status or position of the NSO with regard to the government apparatus; (3) dispositions regarding the appointment, tenure and dismissal of the chief executive officer of the NSO; (4) dispositions regarding authority over aspects crucial to professional independence, such as methodology or data dissemination; (5) the extent of the legal mandate that enables a NSO power to summon administrative data from other government agencies; and (6) the existence and mandate of a statistical council.

Information regarding formal independence has been drawn from each country's legislation. In a good number of countries, for instance, there exists one organic piece of legislation that brings together all matters regarding public statistics. In others, we need to take into account various pieces of legislation. Statistical acts are in some cases followed or completed by government decrees that are also legally binding. In the following examination, we have chosen to consider jointly these various elements, mention of independence in a decree (as in Chile, Portugal, or Italy, for instance) being considered as equivalent to its mention in the act. We have also decided to include preambles into our analysis, since they are integral part of statistical acts and are generally intended to convey the legislator's intent (as is the case, for instance, with Netherlands). However, we have not given the same status to material presented as accompanying explanatory notes (Canada, where the statistics act has recently been amended, being a case in point). Other significant documents, for instance the Commitment on Confidence in Statistics signed in 2012 by the Prime Minister of Greece and the European Commissioner for Taxation and Customs Union, Audit and Anti-Fraud, have not been included in this part of the analysis, given their somewhat different nature. The amendments to the Hellenic Statistical Law that have followed this Commitment have however been considered, since they received the approval of the Hellenic Parliament. There is also a significant variance in the way statistical acts are conceived across countries: some are comprehensive and very detailed, while others are surprisingly succinct. This is sometimes due to the fact that the act may give the statistical office the power to issue regulation regarding its own operations. This raises a problem for comparison, since clarity as to whom or what benefits from independence and as to what processes or objects are to be considered independent is also very different from one country to another.

Informal (B), by contrast with formal independence, refers to policies and practices that are followed by a NSO but do not benefit (generally) from legal protection. We have retained here five dimensions: (1) explicit reference to a code of practice; (2) the existence of quality assessment practices; (3) that of a binding and publicized dissemination calendar; (4) that of a

statistical player is the Bureau of Labor Statistics, which is probably more independent than the Bureau of the Census, but which we have chosen to keep outside of our present investigation.

release policy governing access to data before it is made public; and, finally, (5) the actual profile and activities of the statistical council (by contrast with its legal mandate). Information on informal independence has been drawn mainly for the websites of NSOs. Since these websites have become nowadays the main interface between NSOs and the public, we have considered that their content provides us with a fair picture of their ongoing activities.

The examination of legislation and websites has been supplemented by and interpreted against the information found in the peer reviews or comparable documents we have been able to find. Chief among them are the Eurostat peer reviews, which concern no less than twenty-six countries in our population (that is, all our European countries plus Turkey) and of which two rounds have been conducted (2006-2008 and 2013-2015). For the other countries, we have relied, when possible, on other documents, such as the IMF's *Report on the observance of standards and codes*. We will now present and justify the modalities of each of these dimensions.

A.1. Explicit mention of independence or of its correlates in statistical legislation

The most obvious formal expression of independence as protection from political interference is of course explicit mention of it in a country's statistical act. Given the efforts made by government statisticians to promote the notion of statistics' independence, we may consider that mention of the word in a country's statistical act (with the use of qualifiers such as 'independent' and 'independently' considered as equivalent) is significant and may be interpreted as a positive signal that independence is a concern. But we may consider that other words than independence may also signal such a concern. Therefore, we have looked for the presence, in the OECD countries' statistical acts (and related decrees), of words that may be considered as more or less close correlates of the notion of independence. The words that have emerged as recurring are: autonomy (or autonomous), objectivity (or objective/objectively), impartiality (or impartial), and neutrality (or neutral). These words have of course various connotations, as they may refer to the area of administrative decision-making, to that of technical and professional choices, or to the attitude towards stakeholders and users, including the government. But they altogether belong to what we may designate as the lexical field of independence defined as protection from political interference. On our overall scale of formal independence (100 points), we have granted this dimension a score of 15 and three modalities: no mention of independence or of any of its correlates (0), a single mention (10), and more than one (15).

A.2. Position of the NSO within government apparatus

Here, four possibilities have emerged from examination of our cases. The NSO was either: (A) under the authority of a minister and his department; (B) under the authority of a minister, but independent of a department; (C) under the authority of the chief of government; or (D) directly accountable to Parliament. Position D, as it implies clear distance from the rest of public administration, corresponds to the highest degree of independence and corresponds to the highest score (15). Position A is the weakest, since a NSO will for instance be in a delicate position to summon data from the department on which it depends and its chief officer will not, by definition, hold the highest administrative position in the department;[‡] it thus corresponds to

[‡] This was for instance the case in Greece before 2010: the National Statistical Service of Greece (NSSG) was then a unit within the ministry of Finance and had no capacity to summon crucial data from the latter.

zero on our scale. Position B and C are intermediate, but being directly under the chief of government normally gives the NSO a central position from which its capacity to collect data from other government departments in enhanced. Therefore, position C has been awarded 10 points, while position B has been awarded 5.

A.3. Legal dispositions regarding the chief executive officer

A third dimension concerns protection awarded to the position of chief executive officer of the NSO. Here, four indicators have been considered. (a) Is the process leading to his nomination a closed bureaucratic process (as in Canada, where a chief statistician resigns on Friday afternoon and his successor in designated on Monday morning) or an open competition, as in Norway, Denmark, or even Greece in 2015? (b) Are there specific technical requirements, such as a given academic degree in a relevant subject and/or experience in management, explicitly attached to the position? (c) Is the mandate's duration specified in the law? (d) Are the conditions of dismissal explicitly stated or is the chief executive officer serving "at pleasure"? Each of these elements was allocated 5 points for a possible total of 20: in each case, the two possible values were 0 (if the nomination process was discretionary, if no technical requirements were stated, or if length of mandate or conditions for dismissal were unstated) and 5 (for an open competition, explicit requirements, defined tenure and conditions of dismissal).

A.4. Authority of the NSO or of the chief executive officer over professional matters

Here, we have identified four areas over which explicit authority of the NSO or of its chief executive officer is crucial to independence. These are: (a) the overall operations of the NSO, (b) methodological and technical issues, (c) the statistical programme (what data are to be collected), and (d) dissemination of data. Again, each of these indicators was allocated 5 points for a possible total of 20. Here again, values were 0 or 5, with 5 for exclusive authority of the NSO or its CEO over a dimension and 0 where this authority was unspecified or shared with political or administrative superiors, except in the case of the statistical programme, where shared authority earns 2,5 points. Shared authority over methodology (as in Canada's 2017 Statistics Act) unquestionably carries a risk of political interference, while shared authority over the statistical programme seems by contrast easily defensible, since it allows input from outside and may enhance relevance of data.

A.5. Mandate for collecting data from other government agencies

Capacity for a statistical agency to summon data collected by other government departments may be viewed as a significant indicator of its status and of its independence. Being legally entitled to comply other parts of government to provide administrative data they collect in the course of their activities (while reciprocity is normally impossible due to the notion of statistical secrecy) is supplementary evidence of the special character or position of a NSO within the purview of government. It is however more difficult to measure precisely. We have opted here for a simple scale, where no specific mention in law of such a mandate is equal to 0, a limited mandate, to 7,5, and an extensive mandate to the maximum of 15 points.

A.6. Existence and mandate of the statistical council

This one is a delicate dimension to measure, for the notion of statistical council differs considerably from one country to another (New Zealand, for instance, has none). But we gathered under this name bodies of an advisory or, more rarely, of a monitory character whose existence was entrenched in law. For each, we have sought to determine: (a) if their mandate was unspecified, limited (i.e. purely advisory) or extended (i.e. advisory + monitory), with respectively 0, 2,5 and 5 points; (b) if its members' designation was the government's prerogative (0), or if it included, at least partly, the CEO's recommendations (5); and (c) if a statistical council duty to report was unspecified (0), if mention was made of an annual report (2,5), and if, on top of that, a statistical council could take initiative and report on all issues it considered relevant (5 points).

B.1. Code of practice

Devices of a more professional nature have also taken growing importance in the recent decades. Foremost among these are the various codes of practice and ethical guidelines to which statistical offices have subscribed. The principles stated in these documents provide a benchmark against which actual practice can be assessed. The most universal document to which all NSOs refer is the UN's *Fundamental Principles of Official Statistics* (FPOS), but no real constraint is attached to them. Reference to the *European Statistics Code of Practice* (ESCP), on the other hand, is found in a number of statistical acts and may thus have more tangible consequences. Other documents play a comparable role, for instance the IMF's *Special Data Dissemination Standard* (SDDS) or the OECD's *Quality Framework and Guidelines for Statistical Activities* (QFGSA), which provides an inventory of good statistical practices.

ESCP is by far the most elaborate of them. Its principles are enshrined in *Regulation (EC) No 223/2009 of the European Parliament and of the Council*, which also specifies that their implementation by each NSO must be checked. Two rounds of peer reviews of this code's implementation have yet been conducted, in 2006-2008 and 2013-2015. The reports produced on these occasions "assess the level of compliance with the Code according to a four-level reporting scale (fully/largely/partly/not met)" for each of the Code's principles. [§] One may note the similarities and overlap between the ESCP and the OECD's SDDS, where explicit mention of the components of statistics' quality (relevance, accuracy, timeliness, accessibility, interpretability, coherence, comparability) is made. Principles such as professionalism, prevention of misuse, impartiality and objectivity, credibility or integrity, which are highlighted in these codes, all pertain to the lexicon of independence.

We have chosen to allocate 20 points to this dimension, with no points if there was no reference to a code of practice on a NSO's website, 10 where there was one, and 20 where reference was made to more than one code and /or a national code of practice existed.

[§] <u>http://ec.europa.eu/eurostat/web/quality/first-round-of-peer-reviews</u>. Interestingly, reports from these two rounds differ significantly. During the first round, assessment of conformity to the ESCP was comprehensive, but rather formal and conducted with a charitable view. The second round was more critical and focused on each country's specific weaknesses.

B.2. Quality assessment

Quality has become a buzzword in NSOs' literature in significant concordance with the rise of concerns over independence. Quality in statistics has a history that goes back to the methodology of industrial control of quality, but from the late 1990s on, most of NSOs have adopted a comprehensive view of quality and expanded much effort on quality assessment.^{**} Now, quality, which is not the equivalent of independence, may appear as a bulwark for the latter, and it is often argued that breach of independence may result in compromising quality of statistics. Signalling loss in quality may also appear as assertion of independence. An example of this is provided by Statistics Canada's decision to publicly announce that it lowered its quality threshold for the publication of small area data collected through the 2011 voluntary National Household Survey and, at the same time, that it withheld its certification for data from areas where participation had not reached that threshold. The United Kingdom Statistics Authority's power to publicly withdraw the 'national statistics' label from certain series is another case in point (and media have covered these decisions with gusto).

Here again, we gave 0 when no mention was made of quality assessment on the website, 6,66 when reference was made of a quality framework, 13,33 where there was some evidence of quality assessment (reports, etc.), and 20 when there was evidence of extended and regular quality assessment.

B.3. Dissemination calendar

Dissemination calendars have become a standard feature of NSOs' websites. They can be viewed as informal tools for insuring independence, since they make interference with the release of possibly unwelcome data quite visible. We have allocated 15 points to the presence of such a calendar (and 0 if there wasn't one). Now that dissemination calendars has been largely adopted by NSOs, concerns have moved to the adoption of such calendars for statistics emanating from other government bodies than NSOs, but we have chosen not to include this aspect in our assessment for now.

B.4. Pre-release policy

The possibility for political authority to gain advance knowledge of data to be released and possibly use it for the purpose of 'spinning' is seen nowadays as a breach of 'equality before data' and most NSOs have accordingly developed pre-release policies destined to ban such advance knowledge or, at least, to severely constrain it. Cases where no mention of such a policy was to be found were allocated 0, while 12,5 were given when such a policy at least existed, 18,75 when that policy was strict (very short embargo for a very restricted set of users), and 25 when no form of pre-release was allowed.

^{**} Usually, quality is defined along a series of components: relevance, accuracy, timeliness (or punctuality), accessibility (and/or clarity), interpretability, and coherence (and-/or comparability).

B.5. Visibility of the statistical council

To move beyond the formal or legal mandate of statistical councils, we have chosen to measure the visibility of such councils. Councils that have no visibility whatsoever (Canada is a case in point) or countries where no such council exists have been ascribed a score of 0. Those whose existence was mentioned or whose activity was reported on the NSO's website were allocated 5 points; those that had their own website were allocated 13,2 points, while evidence of regular activity on the part of the council (reports, minutes of meetings, etc.) on that website led to the maximum of 20 points.

4. FROM FORMAL AND INFORMAL INDEPENDENCE TO INDEPENDENCE AS PROTECTION AND CAPACITY

To begin, with we present here (table 1, p. 10) the total scores obtained by each country (or NSO) with regard to formal and informal independence. Figure 1 (p. 11) represents the same data on a two-axis graph, with the means as origin. The most impressive result is the range of scores, varying from 95 (Greece) to 17,5 (Japan) with regard to formal and from 93,75 (Italy and Lithuania) to 10 (Japan again) with regard to informal independence. Means and standard error for each dimension are, respectively, 60,85 and 19,40 (formal) and 67,43 and 19,81. A higher mean for informal independence can be reconciled with the fact that professional practices are probably more flexible and susceptible to change than are laws or statutes. They also fall within the organizational space specific to the NSO, while changing the law implies mobilizing a network of other players.

But it is of interest to observe that scores on each scale vary significantly for many countries. Table 2 (p. 12) computes, for each country, these differences (as formal minus informal). The most impressive positive difference (31,7) is offered by Austria while France presents the most impressive negative difference (-43,75). The mean positive difference amounts to 10,68 and the mean negative difference to -16,35, which is congruent with the negative difference between the two means. But here again, the range is impressive.

COUNTRIES	FORMAL	COUNTRIES	INFORMAL
Greece GRC	95	Italy ITA	93,75
Italy ITA	92,5	Lithuania LTU	93,75
Austria AUT	85	Ireland IRL	93,75
Hungary HUN	82,5	Greece GRC	90
Portugal POR	77,5	Luxemburg LUX	87,5
Mexico MEX	77,5	Poland POL	86,6
Iceland ISL	75	Denmark DNK	85
Estonia EST	75	Portugal POR	83,75
Slovakia SVK	75	Spain ESP	83,75
Lithuania LTU	72,5	France FRA	83,75
Luxemburg LUX	72,5	Netherlands NLD	80,35
Poland POL	72,5	Hungary HUN	78,75
Netherlands NLD	72,5	Czech CZE	78,75
Czech CZE	72,5	Finland FIN	78,3
Ireland IRL	70	Australia AUS	76,95
Slovenia SLN	70	Sweden SWE	76,6
Latvia LVA	70	Slovenia SLN	75
Denmark DNK	65,5	United Kingdom UK	75
Norway NOR	65	Iceland ISL	73,3
Turkey TUR	65	Mexico MEX	68,3
Finland FIN	62,5	Norway NOR	65,35
Sweden SWE	62,5	Estonia EST	61,6
Spain ESP	57,5	Latvia LVA	61,6
New Zealand NZD	55	Switzerland CHE	59,1
United Kingdom UK	52,5	Belgium BEL	58,3
Switzerland CHE	47,5	Canada CAN	57,05
Australia AUS	45	Slovakia SVK	54,1
Chile CHL	45	Austria AUT	53,3
France FRA	40	United States USA	51,6
Belgium BEL	40	New Zealand NZD	50,35
Canada CAN	40	South Korea KOR	50
South Korea KOR	40	Chile CHL	43,3
Israel ISR	32,5	Germany DEU	42,5
United States USA	27,5	Turkey TUR	36,6
Germany DEU	22,5	Israel ISR	30
Japan JPN	17,5	Japan JPN	10
MEAN	60,85	MEAN	67,43
STANDARD ERROR	19,40	STANDARD ERROR	19,81

TABLE 1. FORMAL AND INFORMAL INDEPENDENCE SCORES: OECD COUNTRIES.



FIGURE 1. FORMAL AND INFORMAL INDEPENDENCE SCORES: OECD COUNTRIES.

COUNTRIES-NSO	FORMAL-INFORMAL		
AUSTRIA	31,7		
TURKEY	28,4		
SLOVAKIA	20,9		
ESTONIA	13,4		
MEXICO	9,2		
LATVIA	8,4		
JAPAN	7,5		
GREECE	5		
NEW ZEALAND	4,65		
HUNGARY	3,75		
ISRAEL	2,5		
ICELAND	1,7		
CHILE	1,7		
NORWAY	-0,35		
ITALY	-1,25		
SLOVENIA	-5		
PORTUGAL	-6,25		
CZECH REPUBLIC	-6,25		
NETHERLANDS	-7,85		
SOUTH KOREA	-10		
SWITZERLAND	-11,6		
SWEDEN	-14,1		
POLAND	-14,1		
LUXEMBURG	-15		
FINLAND	-15,8		
CANADA	-17,05		
BELGIUM	-18,3		
DENMARK	-19,5		
GERMANY	-20		
LITHUANIA	-21,25		
UK	-22,5		
IRELAND	-23,75		
USA	-24,1		
SPAIN	-26,25		
AUSTRALIA	-31,95		
FRANCE	-43,75		

TABLE 2. DIFFERENCE BETWEEN FORMAL AND INFORMAL SCORES

We may further disentangle the notion of independence by distinguishing two meanings or two dimensions in a way that mirrors the classic distinction between 'negative' and 'positive' liberty (or between 'liberty from' and 'liberty to' [Berlin, 1969]): we can envision independence as *protection* from interference but also as *capacity* to undertake certain actions. Fixing a fiveyear term for the chief officer of a NSO and securing his nomination through an open process ensures for instance more protection and less politicization than complete government discretion in this matter. But having the authority to summon data from other departments or agencies or to publicly signal that some data do not meet quality standards can also be viewed as important features of independence or autonomy. According to these distinctions, Table 3 thus recodes the categories of formal and informal independence according to this distinction between protection and capacity, with equal weight attached to each.

	Formal Independence	Informal Independence	
Protection	 A.1 Mention of independence in law A.3 Chief statistician's position A.4a Authority of NSO/CS regarding overall operations A.4b Authority over methodology 	B.1 Code of PracticeB.2 Quality assessmentB.4 Pre-release policy	
Capacity	 A.2 Position of NSO inside government A. 4c Authority over statistical programme A.4d Authority over dissemination A.5 Mandate for collecting data from other agencies A.6 Statistical Council 	B.3 Dissemination calendar B.5 Visibility of Statistical Council	

TABLE 3. FORMAL AND INFORMAL MEANS RECODED AS PROTECTION AND CAPACITY

Figure 2 (p. 14) offers a visual representation of this on a two-axis graph, with the mean of each dimension as origin.



FIGURE 2. CAPACITY AND PROTECTION SCORES

Countries have then been divided among three categories (table 4, p. 15): (1) former communist countries of Eastern and Central Europe; (2) other European countries; and (3) non-European OECD countries. As can be seen, there is a striking difference between the first and third groups, with regard to mean, standard error and range.

COUNTRIES	C-P Score	COUNTRIES	C-P Score	COUNTRIES	C-P SCORE
CZECH REPUBLIC CZE	8,21	GREECE GRC	9,40	MEXICO MEX	8,03
LITHUANIA LTU	8,57	ITALY ITA	8,81	AUSTRALIA AUS	6,48
HUNGARY HUN	8,27	IRELAND IRL	8,26	TURKEY TUR	5,59
SLOVENIA SVL	7,73	LUXEMBURG LUX	8,21	NEW ZEALAND NZL	5,46
POLAND POL	8,09	NETHERLANDS NLD	8,09	CHILE CHL	5,41
LATVIA LVA	7,25	ICELAND ISL	7,84	SOUTH KOREA KOR	4,58
ESTONIA EST	7,20	AUSTRIA AUT	7,61	CANADA CAN	4,10
SLOVAKIA SVK	7,14	DENMARK DNK	7,55	UNITED STATES USA	3,15
		SPAIN ESP	7,44	JAPAN JPN	1,18
		PORTUGAL POR	7,43		
		NORWAY NOR	7,25		
		SWEDEN SWE	7,08		
		SWITZERLAND CHE	6,00		
		FINLAND FIN	6,00		
		UNITED KINGDOM UK	5,83		
		BELGIUM BEL	4,40		
		FRANCE FRA	4,94		
		GERMANY DEU	2,50		
MEAN	7,81	MEAN	6,93	MEAN	4,89
STANDARD ERROR	0,56	STANDARD ERROR	1,71	STANDARD ERROR	1,97

TABLE 4. FORMER COMMUNIST, EUROPEAN AND OTHER OECD COUNTRIES ACCORDING TO CAPACITY-PROTECTION SCORE

5. PROVISIONAL CONCLUSIONS AND FURTHER INQUIRIES

A few observations can be drawn from these results. To begin with, we may insist the remarkable scores of former communist countries. Their high scores and the very short range of these scores (8,21 to 7,20) are an indication of homogeneousness that we can explain as an effect of "starting from scratch" (comparable to that of the late industrializer who benefits from the latest technology). Since statistical offices in the communist era had the rather specific mission of monitoring the planned economy, all these countries had more or less to build anew and, for this, they benefitted from the help of the rest of Europe, notably from that of Eurostat. By comparison, other European countries, whose statistical systems generally have a long and continuous history, present a much larger range (9,4 to 2,5). Incidentally, Greece's exceptional performance, which may raise some eyebrows, may be explained in the same manner as that of countries in the

former group. The culmination of the crisis in 2010 and the showdown with Eurostat and the rest of the Euro countries led to a complete overhaul of the statistical system and a precipitate alignment with the days' "best practices", in an almost overdone manner. It should be noted, however, that 2/3 of these countries (12 over 18) have a mean score that is above the mean of their group. Lower scores overall (mean under 5) and an almost identical range (8,03 to 1,18) characterize the third group of countries (non-European OECD).

This brings us to the issue of interactions between national statistical offices and of the role played by the epistemic communities associated with them. All countries have, to a degree, an epistemic community concerned with the production of official statistics. Some are highly involved on lobbying and making known their views, like the American statistical Association (ASA) or the UK's Royal Statistical Society (RSS), but they remain within the national orbit. But in the case of Europe, we can see an institutionalization of this epistemic community through Eurostat, a statistical office in its own right but also an agent of harmonization of practices through the dissemination of a code of practice and regular peer reviewing of its application. Other bodies, such as the European Statistical Governance Advisory Board or the European Statistical System Committee, also play a role in that matter. Now, we may hypothesize that the cooperation and the pressure brought up by these actors was more significant in the case of countries starting from scratch or affected by a serious and highly visible crisis (Greece). By comparison, countries with more resources and a long tradition of official statistics (such as the UK, France, Belgium and Germany, with the four bottom scores) may be less susceptible to be on the receiving end of such cooperation or pressure.

Now, the international epistemic community, embodied by the UN Statistics Division or the International Statistical Institute (ISI), is also active to a degree in harmonizing practices and implementing the Fundamental Principles of Official Statistics, but its institutionalization is in no way comparable to that of its European counterparts. The magnitude and diversity of official statistics worldwide also defies its capacities. Our group of non-European OECD countries thus belongs to no intermediate-level epistemic community that could drive a harmonization process.

A final remark: as mentioned in the start, we have basically relied on the examination of legal documents and websites. This raises the problem of the conformity of "image" to "reality". We can have a fine piece of law or a nice website and not yet be sure of what really goes on. It raises also problems of interpretation: for instance, we have been somewhat dazzled with the Korean and Japanese pieces of legislation, which did not resemble the rest, and also by their websites, where things never seemed to be where we expected them to be. Both these limitations suggest that any comprehensive assessment of a NSO's statistical independence should be supplemented by taking into account view from the inside and tracking any sign of controversy.^{††}

^{††} The very fresh scandal about Japan's labour statistics is a case in point (see https://bccjacumen.com/broad-detailed-imprecise/).