

The Corruption Footprint Index (CFI): A New Index about Measuring Corruption

Dr. Dimitrios Prontzas

Assistant Professor of Corruption
Panteion University of Social and Political Sciences
Department of Sociology
Syngrou Andrea Avenue 136, Kallithea
Athens, Greece

Abstract

In this text Corruption Footprint Index (CFI) is introduced as an indicator that comes to boost the scientific analysis of the calculative dimension (measuring indicators) of the complex corruption phenomenon. An indicator that is one more tool in this calculative dimension of corruption. In parallel it enforces the scientific discipline and the interdisciplinary one which is demanded in the analysis and approaches (in national and global level) of the other two dimensions of corruption, of the conceptual (meaning and definition) and factual (forms of their appearance in practice).

Keywords: Corruption, Corruption Footprint Index, Definition, Good Governance, Culture of Corruption, Indicators.

1. What is corruption?

It is a conceptual structure that accredits in an action (human action) a special feature (positive or negative)? It is moving from the approval pole (from who, what and why?) until the pole of rejection (encore from who, what and why) of the same action or its results? It is a social, customized, related to law, ostensible situation or regular? Depending upon these ostensible situations- regularities of population all over the world by their existential time as well, it forms conceptual and factual content, form and consequence in very human action, for every single country and culture all over the world? These springboard questions are credited to be raised from each researcher of the phenomenon for every country separately in the world. Provided that they are not answered in the framework of a specific gait, are leading to the definition of the corruption phenomenon which concerns *the need for maximization of the use of the human actions, material or immaterial (a clear estimation of cost and benefit) with its strategic point to be considered that this need overcomes the regularity shaft to be in the crisis and the reflexes of every social sum in the field, time and the result of this need to be the catalytic effect on the social, political, economic, cultural system of every social sum.*

2. The Corruption Footprint Index(CFI)

In the field of the measuring indicators of corruption, the *corruption*, the *human development* and the *good governance*, as fundamental meanings and indexes of analysis consist an object of manifold correlation. One such correlation is what is described here, with the attempted introduction and construction of a new index, the “**Corruption Footprint Index**” (CFI). It is a fact that, the “footprint” as a concept, has already been sought, through the combination for the environment, the society, the culture, the community and governance, that is the five pillars on which this of corruption will be also added, which analyze the perfect techniques for the practice of sustainable development which is often shrunk in its “environmental” dimension.

If corruption encumbers prices of products and services increases the cost of covering the needs of citizens and so in order this weakening of the economic system to be dealt with, has led to the search for a trace (*The Corruption Footprint*, 2012). The trace is generated by factors such as the higher education of executives trained in active corruption with the form of bribery, ethics committee participants and meeting frequency, business partners’ audit, and is expressed as “bribe footprint” which contributes to the creation of an analysis tool of senior employees’ behavior.

This indicator shows the way that corruption is sought within business with parameters of turnover, employment contracts; the transparency index of the country, the countries' network with home the company has relationships (*The Corruption Footprint*, 2012). This index as a notion can be of a specific elaboration in another direction. The processing dates beyond the "bribe footprint" of businesses in the peculiar conception "corruption footprint" of countries. Certainly several risks are lurking in the allusive dimension, which includes the name of the index, and indeed constitutes an attempt. In our case the index captures the assessment of "effects- results", "forms-practices of corruption" in a country, through the correlation of aspects of perception of corruption, proper governance and human development (Prontzas D., 2014). The principles of perception of this index are the following: Firstly, the interaction between the two ratios of corruption (positive or negative) and the proper governance in developments a fundamental correlation in the aggregation of the researchers of the phenomenon. In particular, for the issue of corruption, some concerns or assumptions should be noted. In scientific research on the phenomenon of corruption issues of leadership cannot be set as well as those of economic, social, political or criminal sciences.

Maybe of course the complexity of the phenomenon, the multiplicity of its baseline cultural standards of custom, traditions, attitudes, require the approach, primarily as a social and political and following as an economic issue. However, the expertise of corruption, its conversion to a comparable and measurable dimension, imposed and simultaneously allowed the passage of the reef of its moral "demonization" and the breaching of the entrenched geometrical locus of its moralistic approach. Clearly the most difficult to reach and measurable forms of the phenomenon is the intangible ones, that is, not corruption but favoritism, fraud but not discrimination, not white or black, but the gray field. The phenomenon of corruption, through documented analysis, however, requires the conceptual illumination of social, political and economic impact and the way in which is installed in the social and economic relations (Prontzas D., 2014).

Economists agree that development strategies must take into account the political and cultural facts, from which and through them, those strategies will be implemented. Strong perceptual ability, specific social and cultural values are needed for the developed efforts of sketching phenomena of corruption. Admittedly, questions become particularly demanding whether poverty produces corruption or development is its mound, if corruption is caused in the development process or if corruption is useful or necessary on the economic growth (for some countries around the world). The variations of the phenomenon initiate from man to man, from social group to social group, from elite to elite, from culture to culture, from custom to custom, from country to country, from continent to continent. The countries and their populations, produce, maintain, alter or eliminate forms of the phenomenon. In each country, the sources, structures, parameters and effects of corruption, are differentiated into a greater or lesser degree, but in no time and space are these same. Each separate *culture of corruption* produces exactly the multiculturalism of the phenomenon.

The democratic or authoritarian, economic, or social legitimization of corruption, does not imply strength in space and time and much more doesn't always imply and perpetually similar results. As corruption is not (only) a *transportable phenomenon or practice* from country to country, a critical issue is the development and practical application of theoretical approaches to the phenomenon of corruption from country to country, when development efforts are combined and aligned with conventional approaches of corruption. So the failure of comprehension of the nature and its extent from country to country and thus, it doesn't allow easy positive or negative correlations with the issue of development(ProntzasD.,2014).Secondly, the two indicators, the *Corruption Perception Index (CPI)*and *World governance indicators (WGI)*,incur wide acceptance and are the main starting point of production of scientific studies, formulation and evaluation of policies at an international level, concerning the issues of corruption and governance. Corresponding earnings as a tool for research and policy, incur the *Human Development Index (HDI)* as well. Thirdly, both the methodology and the components that shape the specific indicators allow up until now, the fullest possible approach and evaluation of the three critical issues of corruption, proper governance and development.

Fourth, there are cases involving the theoretical placement of the majority of scientists on the negative correlation both indefinitely and short term, corruption and proper governance in the development are partly confirmed. As there are cases of countries for which are accredited, those placements of researchers who advocate the theoretical positioning and analysis of so-called positive effects of corruption in a country seem to be confirmed (according to the recording of indicators *CPI*, *WGI*, *HDI* and *CFI* for European Union countries such as Greece, Italy, and other).An additional theorem is produced in parallel, in the analysis on the positive impact of corruption, this of the positive influence and misuse of government in the development of certain countries.

Consequently, the demanding and critical issue of identifying, calculating and study the characteristics of the phenomena of corruption and governance in each country separately emerges, firstly to outline the conditions under which are shaped and contexts in which they are grown both sizes, secondly to design effective policies that take into account the specific origins and implications, and not the general assumption of governance and development. Fifthly, the two indicators of *good governance* and *human development* are composed of elements which are in diametrically opposed theoretical and factual position, in which each data is included in the case of the conceptual factual determination corruption. The *voice and accountability, political stability and absence of violence terrorism, government effectiveness, regulatory quality interventions, the rule of law, control of corruption*, are parameters are related to the scope of the concept of transparency, that is, the opposite of corruption.

In parallel, meeting the basic human needs, strengthening the personal income, improving health services and education and increasing life expectancy, compose on the one hand some of the changes that are the result of economic growth and are included in the human development index. On the other hand, they are associated in the most accredited way with the transparency, the proper governance and their results.

Sixthly, the corruption footprint index results from the function (Prontzas D., 2014):

$$CFI = f(WGI \times CPI \times HPI)$$

CFI: Corruption Footprint Index, HDI: Human Development Index, CPI: Corruption Perception Index, WGI: World governance indicators.

In this equation, the index of governance, results from the average of individual governance indicators: *Voice and accountability, Political stability / absence of violence and terrorism, Government effectiveness, Quality regulatory interventions, Rule of law, Control of corruption.*

All these six indicators, as mentioned, have the same measurement scale. That is: $WGI = \begin{cases} -2,5 \\ 2,5 \end{cases}$

The scale of the *Corruption Perception Index* ranges from 1 to 10 and that of the human development index from 0 to 1. All these three indicators are then given in different units of measurement. To overcome this problem and use the equation of corruption footprint index, their prices are converted in the ranging size from 0 and 1, with the following equation: $X_{new} = \frac{Xi - \min Xi}{\max Xi - \min Xi}$

Concerning the scale of the corruption footprint index, it ranges from 0 to 1. As the performance rates of a country approach number one, the imprint of corruption in the country is considered to diminish, i.e. the effects of the forms of corruption are small. Conversely, as the performance of a country is close to zero, then the impact of the phenomenon of corruption it is bigger and stronger. Critical point is the condition in which, in order for a country to be included in this index there have to be, for each year separately, available data for all individual indicators forming the *Corruption Footprint Index*.

The function $CFI = f(WGI \times CPI \times HPI)$ indicates that, the incidence of corruption or its imprint in a country is the function of the size of the corruption, the level of proper governance and human development. Hence, the corruption footprint in a country, is attributed to the synergy of these three factors, each of which can be broken down into individual components, without of course the meaning that the agents are equivalent as their relative importance varies from country to country, as a result of the special qualities of these three sizes found in each country separately.

3. Conclusions

The *Corruption Footprint Index (CFI)* allows the indication of the results (positive or negative) of the forms of corruption in a country through the correlation of the factors in the perception of corruption, of the proper governing and human development. Specifically useful – related to the results and the production of its conclusions- for the planning and the enforcement of political strategies for the handling of the contemporary situations of crisis- transitions in national and global level. Finally presents the implementing, of the *Corruption Footprint Index (CFI)* for some countries of the *European Union* and the *Economic and Monetary Union (about implementing, registration and conclusions in all areas of the EU and the EMU countries for the period 1995-2010, Prontzas D., 2014).*

Table 1: Corruption Footprint Index, Human Development Index, and Corruption Perception Index and World governance indicators in Germany (1995-2010)

| Germany | WorldGovernanceIndicators -WGI | HumanDevelopmentIndex-HDI | CorruptionPerceptionIndex-CPI | CorruptionFootprintIndex-CFI |
|---------|--------------------------------|---------------------------|-------------------------------|------------------------------|
| 1995 | | 0,835 | 0,814 | |
| 1996 | 0,816 | | 0,827 | |
| 1997 | | 0,906 | 0,823 | |
| 1998 | 0,817 | 0,911 | 0,790 | 0,587 |
| 1999 | | 0,921 | 0,800 | |
| 2000 | 0,834 | 0,864 | 0,760 | 0,547 |
| 2001 | | 0,921 | 0,740 | |
| 2002 | 0,812 | 0,925 | 0,730 | 0,548 |
| 2003 | 0,782 | 0,930 | 0,770 | 0,559 |
| 2004 | 0,789 | 0,932 | 0,820 | 0,602 |
| 2005 | 0,797 | 0,895 | 0,820 | 0,584 |
| 2006 | 0,805 | 0,898 | 0,800 | 0,578 |
| 2007 | 0,804 | 0,901 | 0,780 | 0,565 |
| 2008 | 0,795 | 0,902 | 0,790 | 0,566 |
| 2009 | 0,790 | 0,900 | 0,800 | 0,568 |
| 2010 | 0,787 | 0,885 | 0,790 | 0,550 |

Source: Prontzas D., 2014

Table 2: Corruption Footprint Index, Human Development Index, and Corruption Perception Index and World governance indicators in France (1995-2010)

| France | WorldGovernanceIndicators-WGI | HumanDevelopmentIndex -HDI | CorruptionPerceptionIndex-CPI | CorruptionFootprintIndex-CFI |
|--------|-------------------------------|----------------------------|-------------------------------|------------------------------|
| 1995 | | 0,819 | 0,700 | |
| 1996 | 0,747 | | 0,696 | |
| 1997 | | 0,918 | 0,666 | |
| 1998 | 0,733 | 0,917 | 0,670 | 0,450 |
| 1999 | | 0,924 | 0,660 | |
| 2000 | 0,739 | 0,846 | 0,670 | 0,418 |
| 2001 | | 0,925 | 0,670 | |
| 2002 | 0,734 | 0,932 | 0,630 | 0,430 |
| 2003 | 0,732 | 0,938 | 0,690 | 0,473 |
| 2004 | 0,757 | 0,942 | 0,710 | 0,506 |
| 2005 | 0,752 | 0,869 | 0,750 | 0,490 |
| 2006 | 0,752 | 0,873 | 0,740 | 0,485 |
| 2007 | 0,746 | 0,877 | 0,730 | 0,477 |
| 2008 | 0,751 | 0,879 | 0,690 | 0,455 |
| 2009 | 0,745 | 0,880 | 0,690 | 0,452 |
| 2010 | 0,754 | 0,872 | 0,680 | 0,447 |

Source: Prontzas D., 2014

Table3: Corruption Footprint Index, Human Development Index, Corruption Perception Index and World governance indicators in Czech Republic (1995-2010)

| CzechRepublic | WorldGovernanceIndicators-WGI | HumanDevelopmentIndex-HDI | CorruptionPerceptionIndex-CPI | CorruptionFootprintIndex-CFI |
|---------------|-------------------------------|---------------------------|-------------------------------|------------------------------|
| 1995 | | 0,788 | | |
| 1996 | 0,674 | | 0,537 | |
| 1997 | | 0,833 | 0,520 | |
| 1998 | 0,655 | 0,843 | 0,480 | 0,265 |
| 1999 | | 0,844 | 0,460 | |
| 2000 | 0,611 | 0,816 | 0,430 | 0,214 |
| 2001 | | 0,861 | 0,390 | |
| 2002 | 0,673 | 0,868 | 0,370 | 0,216 |
| 2003 | 0,673 | 0,874 | 0,390 | 0,229 |
| 2004 | 0,657 | 0,885 | 0,420 | 0,244 |
| 2005 | 0,675 | 0,854 | 0,430 | 0,247 |
| 2006 | 0,677 | 0,858 | 0,480 | 0,278 |
| 2007 | 0,668 | 0,861 | 0,520 | 0,299 |
| 2008 | 0,680 | 0,864 | 0,520 | 0,305 |
| 2009 | 0,685 | 0,863 | 0,490 | 0,289 |
| 2010 | 0,683 | 0,841 | 0,460 | 0,264 |

Source: Prontzas D., 2014

Table 4: Corruption Footprint Index, Human Development Index, Corruption Perception Index and World governance indicators in Greece (1995-2010)

| Greece | WorldGovernanceIndicators–WGI | HumanDevelopmentIndex–HDI | CorruptionPerceptionIndex–CPI | CorruptionFootprintIndex–CFI |
|--------|-------------------------------|---------------------------|-------------------------------|------------------------------|
| 1995 | | 0,776 | 0,404 | |
| 1996 | 0,639 | | 0,501 | |
| 1997 | | 0,867 | 0,535 | |
| 1998 | 0,661 | 0,875 | 0,490 | 0,283 |
| 1999 | | 0,881 | 0,490 | |
| 2000 | 0,662 | 0,802 | 0,490 | 0,260 |
| 2001 | | 0,892 | 0,420 | |
| 2002 | 0,647 | 0,902 | 0,420 | 0,245 |
| 2003 | 0,652 | 0,912 | 0,430 | 0,255 |
| 2004 | 0,656 | 0,921 | 0,430 | 0,259 |
| 2005 | 0,646 | 0,856 | 0,430 | 0,237 |
| 2006 | 0,644 | 0,861 | 0,440 | 0,243 |
| 2007 | 0,634 | 0,860 | 0,460 | 0,250 |
| 2008 | 0,619 | 0,862 | 0,470 | 0,250 |
| 2009 | 0,592 | 0,863 | 0,380 | 0,194 |
| 2010 | 0,582 | 0,855 | 0,350 | 0,174 |

Source: Prontzas D., 2014

Table 5: Corruption Footprint Index, Human Development Index, and Corruption Perception Index and World governance indicators in Italy (1995-2010)

| Italy | WorldGovernanceIndicators–WGI | HumanDevelopmentIndex–HDI | CorruptionPerceptionIndex–CPI | CorruptionFootprintIndex–CFI |
|-------|-------------------------------|---------------------------|-------------------------------|------------------------------|
| 1995 | | 0,795 | 0,299 | |
| 1996 | 0,671 | | 0,342 | |
| 1997 | | 0,900 | 0,503 | |
| 1998 | 0,669 | 0,903 | 0,460 | 0,277 |
| 1999 | | 0,909 | 0,470 | |
| 2000 | 0,670 | 0,825 | 0,460 | 0,254 |
| 2001 | | 0,916 | 0,550 | |
| 2002 | 0,656 | 0,920 | 0,520 | 0,313 |
| 2003 | 0,646 | 0,934 | 0,530 | 0,319 |
| 2004 | 0,642 | 0,940 | 0,480 | 0,289 |
| 2005 | 0,624 | 0,861 | 0,500 | 0,268 |
| 2006 | 0,619 | 0,866 | 0,490 | 0,262 |
| 2007 | 0,610 | 0,869 | 0,520 | 0,275 |
| 2008 | 0,613 | 0,871 | 0,480 | 0,256 |
| 2009 | 0,604 | 0,870 | 0,430 | 0,225 |
| 2010 | 0,604 | 0,854 | 0,390 | 0,201 |

Source: Prontzas D., 2014

References

- BARDHAN, P. (1997), «Corruption and Development: A Review of Issues», *Journal of Economic Literature* 35 (September).
- BARRO, R. (2000), «Inequality and growth in a panel of countries», *Journal of Economic Growth*, 5.
- BECKER, G. S. (1968), «Crime and Punishment: An Economic Approach», *The Journal of Political Economy* 76/2 (March-April).
- BESANÇON, M. (2003), *Good Governance Rankings: The Art Of Measurement*, World Peace Foundation, WPF Program On Intrastate Conflict And Conflict Resolution, John F. Kennedy School Of Government, Harvard University, Cambridge, Massachusetts.
- HEIDENHEIMER, A. J., JOHNSTON, M., LEVINE, V. T., (1997) (Fourth edition), *Political Corruption: A Handbook*. New Brunswick, NJ: Transaction Publishers.
- HUNTINGTON, S. P. (1968), *Political Order in Changing Societies*, New Haven, Yale University Press
- KAUFMANN, D. (1997), Corruption: the Facts, *Foreign Policy* 107 (Summer).
- KAUFMAN, D. KRAAY, A. MASTRUZZI M. (2010), «The Worldwide Governance Indicators: Methodology and Analytical Issues», *World Bank Policy Research Working Paper No. 5430*.
- KAUFMANN, D., KRAAY, A. (2008), «Governance Indicators: Where Are We and Where Should We Be Going?», *World Bank Research Observer*, Spring 2008.

- KAUFMANN, D., KRAAY, A., PABLO, Z. L. (1999), «Governance Matters», *World Bank Policy Research Working Paper*, No. 2196, Washington, D.C.
- (1999), Aggregating Governance Indicators, *World Bank Policy Research Working Paper*, No. 2195, Washington, D.C.
- KAUFMANN, D., SIEGELBAUM, P. (1995), «Privatization and Corruption in Transition Economies», *Journal of International Affairs* 50, 2 (Winter).
- KNACK, S., KUGLER, M. MANNING, N. (2003), «'Second Generation' Governance Indicators» στο Transparency International, *Global Corruption Report 2003*, Berlin.
- KOREN, J. (επιμ.) (1918), *The History of Statistics. Their Development and Progress in Many Countries*, New York, Macmillan Co.
- KORKERY, J. (1999), *Governance: Concepts and Applications*, IAS.
- KPUNDEH, S. J. (1993), «Prospects in Contemporary Sierra Leone», *Corruption and Reform* 7, (3).
- LASCOUMES, P. (2003), *Corruption*
- LEUNG, C.M. (1989), «The Effect of Corruption on Economic Growth», *The Fourth International Anti-Corruption Conference Report*.
- LEYS, C. (1965), «What is the Problem About Corruption?», *The Journal of Modern African Studies* 3, (2).
- MANION, M. (1996), «Corruption by Design: Bribery in Chinese Enterprise Licensing», *The Journal of Law, Economics, & Organization* 12, 1 (April).
- MAURO, P. (1997), «Why Worry About Corruption?», *Economic Issues* 6, Washington, IMF.
- OSBORNE D., GAEBLER, T. (1992), *Reinventing Government - How the Entrepreneurial Spirit is Transforming the Public Sector*, Reading, Addison-Wesley Publ. Co.
- PRONTZAS, D. (2006), *Η διαφθορά, το αμφιλεγόμενο ζήτημα στην εθνική και διεθνή κοινωνία*, PhD, Panteion University, Department of Sociology.
- PRONTZAS, D. (2013), *Κοινωνία και Διαφθορά*, Αθήνα, Παπαζήσης.
- PRONTZAS, D. (2014), *Λόγος και Πρακτικές Αντιδιαφθοράς. Κείμενα και Ποσοτικές αναλύσεις στις Ευρωπαϊκές Κοινωνίες*, Αθήνα, Παπαζήσης.
- WOODS, N. (2000), *The Challenge of Good Governance for the IMF and the World Bank Themselves*, *World Development*, vol. 28.

Websites:

http://europa.eu/index_el.htm

<http://www.worldbank.org/publicsector/anticorrupt/>

<http://www.imf.org>.

<http://www.oecd.org/daf/nocorruption/index.htm>

www.un.org/

<http://www.europa.com>.

http://www.oecd.org/document/21/0,3746,en_2649_34859_2017813_1_1_1_1,00.html

http://www.transparency.org/global_priorities/international_conventions

http://www.unodc.org/pdf/crime/convention_corruption_signing/Convention-e.pdf.

<http://www.unodc.org/unodc/en/corruption>

<http://europa.eu/rapid/pressReleasesAction.do?reference>

http://ec.europa.eu/comm/nice_treaty/index_el.htm

<http://europa.eu.int>

<http://www.scribd.com/doc/32565922/Corruption-Footprint>.