

# THE ICVS AND BEYOND: DEVELOPING A COMPREHENSIVE SET OF CRIME INDICATORS

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## **THE ICVS AND BEYOND : DEVELOPING A COMPREHENSIVE SET OF CRIME INDICATORS**

### **The International Crime Victims Survey**

One of the most important and most frequently cited shortcomings of the UN Crime Survey is that figures of crimes recorded by the police cannot be reliably used as a measure of the level of crime, especially not for comparative purposes across countries (Newman, 1999). Rates of crimes recorded in police administrations are determined by domestic criminal legislation, public reporting of crimes and the capacity and willingness of the police to officially recognize such reports. As a general rule, rates of crimes recorded per 100.000 inhabitants tend to be higher in the more affluent countries, e.g. Sweden and Denmark. These rates do not reflect the volume of crime as experienced by the public. They should rather be seen as indicators of the effectiveness of law enforcement rather than of levels of crime.

Over the past three decades more and more countries have started to conduct sample surveys among the general population on experiences with crime as an alternative source of information about crime to what the police themselves record. Such victimization surveys provide important additional information on crime as experienced by the public, rates of reporting crimes to the police, experiences of victims with the police, fear of crime and the use of crime prevention measures. If the research methodology used is standardised, the surveys also offer a new opportunity for the collection of crime statistics, which can be used for comparative purposes (Alvazzi del Frate, Zvekic, Van Dijk, 1993).

In 1987 the initiative was taken by a group of European criminologists chaired by the author to launch a fully standardized survey, called the International Crime Victims Survey. In 1988 the first ICVS was carried out in thirteen countries, mainly from Western Europe and North America (van Dijk, Mayhew, Killias, 1990). At the UN Crime Congress in Cuba in 1990, staff members of UNICRI proposed expansion of the survey to developing countries through a series of pilot studies in capital cities across the world. In collaboration with UNICRI, the ICVS was conducted in capital cities of ten or more developing countries in 1992 (Svekics, Alvazzi del Frate, 1995). The subsequent sweeps of 1996 and 2000 were executed in a selection of countries from all world regions (Alvazzi del Frate, Hatalak, Svekics, 2000). Execution in developing countries was promoted by UNICRI through a system of grants and the provision of technical assistance. Most of this pioneering work was funded by the Dutch Ministries of Justice and of Development Aid.

The fifth survey was carried out in 2005 in forty countries, including Argentina, Brazil, Mexico, Peru, South Africa, Mozambique, Cambodia and Hong Kong. Altogether surveys have been carried out in around 30 industrialized countries and in 50 cities in developing countries and countries in transition (Van Kesteren, Mayhew, and Nieuwbeerta 2000; Van Dijk, 2006). Over 300,000 citizens have to date been interviewed in the course of the ICVS. This process has resulted in a body of victim survey data across a variety of countries, unmatched by any other criminological data set (Kury, 2001). All historical data sets of the ICVS can be consulted at the websites of UNICRI and of Gallup/Europe ([www.unicri.it](http://www.unicri.it); [gallup-europe.be/EUICS](http://gallup-europe.be/EUICS)).

The results of the ICVS have been published in several monographs. Key results were also included in the UN's Global Report on Crime and Criminal Justice of 2000 (

Newman, 1999). In the secondary analyses of European and North American data carried out by HEUNI composite indices were used which combine police data with results of the ICVS (Kangaspunta, Joutsen, Olus, 1998; Aromaa, 2003).

In April 2005 UNODC and UNICRI presented a joint working paper for the UN Crime Congress in Bangkok on Trends in Crime and Justice. This report, subtitled Work in Progress, combined results of the UN Crime Survey with those of the ICVS. In addition new data were presented on non-conventional types of crime such as corruption and organized crime drawn from surveys among business executives about perceived risks for their companies. The report was subsequently also distributed among attendants of the 14th Crime Commission in Vienna in 2005. An extended and revised version was later prepared by Van Dijk (2006; forthcoming). This paper will highlight some of the key results.

### **Levels of volume crime**

The ICVS interviews samples of households about their recent experiences with the most frequently occurring types of conventional crime (volume crime). National samples include at least 2,000 respondents who are generally interviewed with the CATI (Computer Assisted Telephone Interview) technique. In the countries where this method is not applicable because of insufficient distribution of telephones, face-to-face interviews are conducted in the main cities, generally with samples of 1,000-1,500 respondents<sup>1</sup>.

The ICVS provides an overall measure of victimisation in the previous year by any of the eleven “conventional” crimes included in the questionnaire. Among the eleven “conventional” crimes, some are “household crimes”, i.e. those which can be seen as affecting the household at large, and respondents report on all incidents known to them. A first group of crimes deals with the vehicles owned by the respondent or his/her household: A second group refers to break and enter (burglaries): and a third group of crimes refers to victimization experienced by the respondent personally, including robbery, pickpocketing, assault and sexual offences.:

The results of the ICVS 1996 and 2000 show that on average 31% of citizens living in urban areas suffered at least one form of victimization over the twelve months preceding the interview. Victimization rates are highest for city dwellers in Latin America (39%) and Africa (36%). Victimization rates are moderately high in Oceania (Australia only) and Western and Central Europe. Victimization rates below the global average are found in North America, Eastern Europe and Asia.

It is noteworthy that the variation in regional rates does not fully conform to the commonly held notion that levels of crime are driven by poverty. The low crime rate of Asia is clearly at odds with this notion. The rate of the Eastern European countries below that of Central and Western Europe also belies easy generalizations about the relationships between poverty and crime.

Figure 1 shows the regional rates for three types of crime.

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<sup>1</sup> The costs of data collection was much reduced by the use of random digit dialling and CATI techniques. In recent years the increase of the proportion of mobile only users in several countries has raised concerns about the representativeness of samples limited to landline phone numbers. Results of pilot studies conducted in the framework of the ICVS and elsewhere suggest that mobile only users differ in many respects from the general population but not necessarily to the extent that results of crime victimisation surveys cannot be reliably approached through sophisticated reweighting of landline based data.

**Figure 1 – Victimization rates by burglary, robbery and assault/threat in the course of one year ( percentages of persons victimized during last year)**

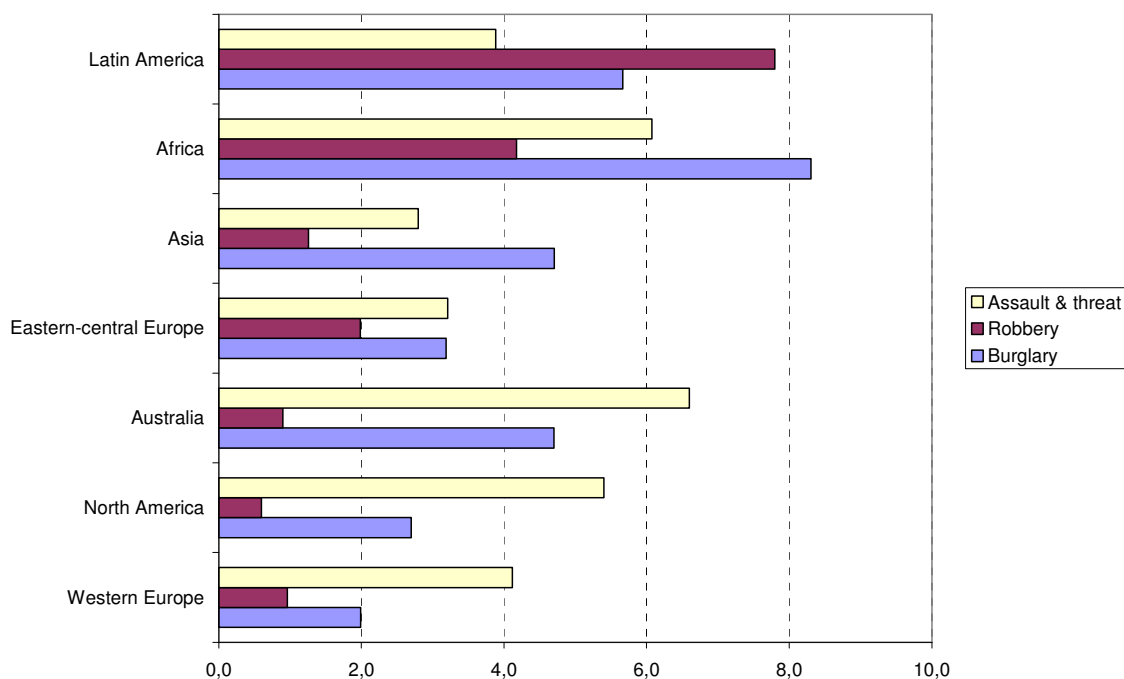


Figure 1 shows regional distribution of one year victimisation rates for burglaries, robberies and assaults and threats as observed in the ICVS. The ICVS defines burglary as house-breaking for purposes of theft. Robbery is defined as theft from the person by use of force, thus involving direct contact between victim and offender (“contact” crime). Rates for all types of crimes refer to percentages of persons victimized at least once by such crime in the course of last year.

The differences among the regions were larger for the two crimes involving property, which were by far the highest in Africa and Latin America. Burglary in Africa was four times more frequent than in Western Europe. Robbery in Latin America was eight times higher than in Western Europe, North America and Australia. Contrary to a common perception, rates of burglary as well as of robbery and assault/threats are not higher in the USA than in most parts of Western Europe. In fact USA rates are significantly lower than those of, for example, England and Wales and The Netherlands ( Van Kesteren et al, 2002).

The data in respect of robbery confirm the validity of the concern about urban violence in several main cities in Latin America and Africa, including in some of the newly established democracies such as South Africa ( Shaw, Van Dijk, Rhomberg, 2003).

The crime category of assault and threat is defined in the ICVS as personal attacks or threats, either by a stranger or a relative or friend, without the purpose of stealing. It is another “contact” crime and although physical consequences may be minor in most cases, it may well have important emotional repercussions for victims. Assault on women are more likely to be domestic in nature than assault on men. In a third of the cases of violence against women, the offender was known at least by name to the victim. In one

of five of the cases the crime was committed in the victim's own house. The level of violence against women is inversely related to the position of women in society, with developing countries showing much higher rates ( Alvazzi del Frate, Patrignani, 1995).

Table 1 shows the ranking of countries on the basis of one-year overall victimization rates, based on results of ICVS surveys carried out in the period 1996-2000. For a few countries which did not participate in these two rounds of the ICVS , rates from the 1992 survey were added ( their country names are printed in italics).

In interpreting country rates , it must be borne in mind that they are based on relatively small samples with an average size of 1,000 respondents. The actual rates among the population may deviate from the ones given here. As a general rule there is a less than 10 % chance that the overall victimization rates of the population deviate more than three percent points from the rates of the samples. Individual country rates, then, cannot be seen as exactly right but certainly provide a reliable indicator of which countries have relatively high, moderately high, or relatively low rates of victimization.

**Table 1 World ranking of countries according to victimization of public by any crime in the course of one year rank number and percentage victims per year ( source : ICVS 1996-2000 mainly)**

*Fifteen countries with highest rates*

1	Colombia	50.7 %	6	Mongolia	41.8 %	11	<i>Tanzania</i>	37.6 %
2	Brazil	48.1 %	7	Cambodia	41.5 %	12	Uganda	37.3 %
3	Zimbabwe	47.5 %	8	Estonia	41.2 %	13	Namibia	36.4 %
4	Costa Rica	45.5 %	9	Bolivia	40.1 %	14	South Africa	36.4 %
5	Swaziland	44.6 %	10	Mozambique	38.0 %	15	Paraguay	36.3 %

*Selected countries with medium high rates*

20	France	34.5 %	29	Australia	32.1 %	38	Sweden	30.4 %
21	UK	34.4 %	31	Poland	31.7 %	39	Netherlands	30.3 %
23	Argentina	33.7 %	33	<i>Italy</i>	31.4 %	40	<i>Germany</i>	29.3 %
24	<i>Spain</i>	33.1 %	36	United States	30.7 %	48	Canada	26.9 %
27	Nigeria	32.2 %	37	India	30.5 %	51	Russian Fed	26.3 %

*Fifteen countries with the lowest rates*

52	Romania	24.5 %	57	Macedonia, FYR	21.6 %	62	<i>Norway</i>	16.4 %
53	Belarus	23.6 %	58	<i>China</i>	21.6 %	62	Japan	15.3 %
54	Georgia	23.5 %	59	Indonesia	21.4 %	63	Croatia	14.3 %
55	Malta	23.3 %	60	Korea, Rep.	20.9 %	64	Philippines	9.1 %
56	Switzerland	22.6 %	61	Panama	20.3 %	65	Azerbaijan	8.3 %

*Rates of countries in italics based on ICVS 1992*

The countries with the highest prevalence rates for conventional crime are mainly from Latin America or sub-Saharan Africa, with the exception of Mongolia, Cambodia and Estonia. A high prevalence rate was also found in Papua New Guinea (not included).<sup>2</sup>

Countries of Europe and North America are almost without exception situated in the middle category. Contrary to common perception, overall rates of volume crime – such as burglary, robbery and assault/threats – are not higher in the USA than in most parts of Western Europe. In fact USA rates are significantly lower than those of, for example, England and Wales and France (see also Van Kesteren, Mayhew, Nieuwbeerta, 2000). The overall rate of Canada is somewhat below the mean of the European Union and that of the United States of America.

Countries with the lowest rates form a fairly mixed group with a strong representation of Eastern European and of both affluent Asian countries (Japan, South Korea), middle-income ones (China) and poor ones (Philippines, Indonesia). Switzerland, although less so than in the first round of the ICVS, is still qualified as one of the countries with the safest cities in Western Europe.

The preliminary results of the ICVS 2005 allow a comparison of the 2004/2005 rates with rates recorded in previous rounds of the ICVS for some developed countries (EU countries, Australia, Canada and the USA). Available trend data point to a continued downward trend in victimization by common crime across these developed countries since 2000 (Van Dijk, Manchin, Van Kesteren, 2006/ forthcoming).

### **Homicide rates**

For obvious reasons, data on completed homicide are not available through victim surveys. Fortunately homicide represents one of the few types of crime for which data from police and health administrations are available which can be used for tentative comparisons at the international level. This is due to a relatively uniform definition and to relatively high reporting and recording rates across all countries (Zimring, Hawkins, 1997). As pointed out by Altbeker (2005) police recorded homicide rates to some extent suffer from the same flaws of underreporting and poor recording as other police recorded crime statistics. In countries where security forces are among the main perpetrators of violent crimes reporting will be low. In many developing countries administrative systems and communication infrastructures of police services preclude proper recording of even the most serious types of crime.

Statistics on police-recorded homicides are recorded through the United Nations Crime Surveys, the latest covering 2000 up to 2002. The other main source of information are the health statistics collected by the World Health Organization through hospital surveys (WHO, 2002). The WHO statistics reflect the views of medical doctors on the causes of death of hospitalized patients and are independent from police administrations. Comparisons of the country rates according to the UN Surveys and the WHO revealed a reasonable degree of agreement (Rubin, Walker, 2004).

However, an analysis of rates over a 16-year period, showed WHO rates to be on average 15 percent higher (Shaw, Van Dijk Rhomberg, 2003). The explanation for this higher count of the WHO might be that hospitals classify as homicides cases of assault resulting in death – whereby the perpetrator did not intend to apply lethal force. Further

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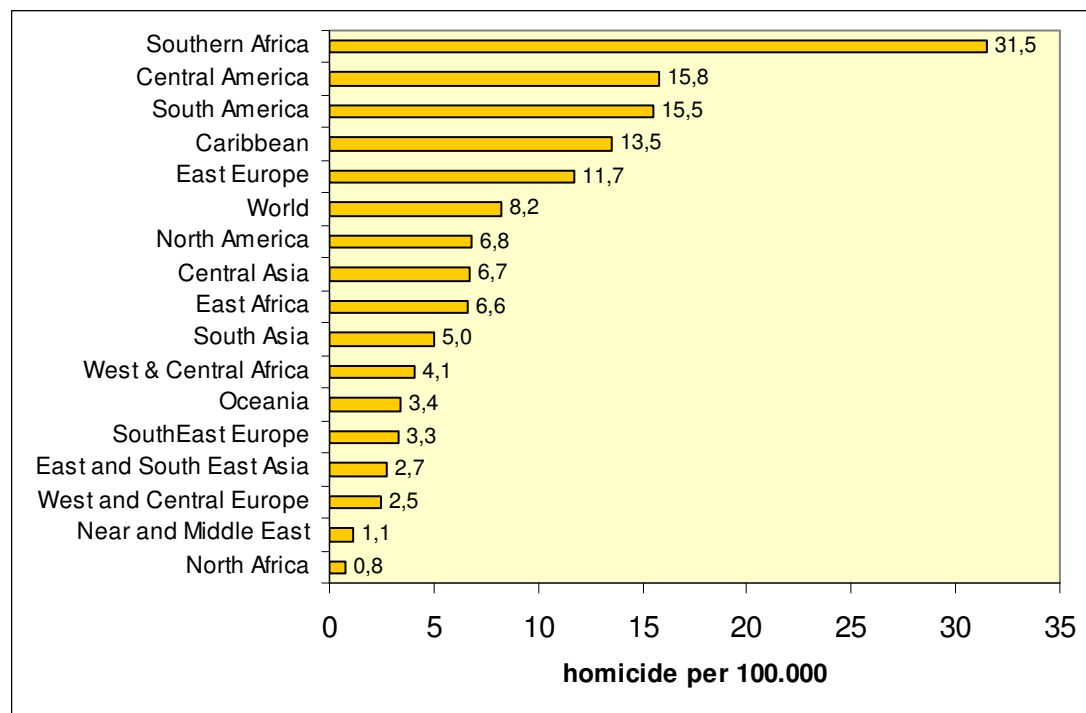
analysis revealed that the higher counts of WHO do not occur in developed countries. The discrepancies are limited to middle-income countries (WHO 19 % higher) and developing countries (WHO 45 % higher). The latter finding suggest that the main reason for the differences is that in developing countries even for as serious a crime as homicide a significant proportion of crimes committed is never reported to the police or never recorded.

The United Nations surveys show a global average of 7 homicides per 100,000 inhabitants per year in recent years. The WHO counted for the year 2000 over half a million homicide-related deaths or 8.8 per 100,000. Males account for 77% of all homicides and have rates that are three times those of females (13.6 and 4 respectively). The highest rates are found among males aged 15-29 years (19.4 per 100.000).

For the purpose of this publication, the latest available national homicide rates were taken from the sixth, seventh and eighth UN surveys, covering the period 1990 to 2002 (most rates relate to 1998 to 2002). To increase coverage of countries, data was added from the WHO dataset for twelve countries not participating in any of the UN surveys. In the cases where these were rates of middle income and developing countries, statistical adjustments were made to achieve better comparability with the UN rates. Through this procedure homicide rates could be calculated for 111 countries.

Figure 2 shows regional rates for completed homicides.

**Figure 2 Homicides per 100,000 population in 2002 or latest year available, per world subregion; sources : UN, WHO.**



Homicide rates are highest in Southern Africa, which in this respect is in a category of its own with rates above 30 per 100,000 population or three times the world average.

Southern Africa is followed by Central America, South America, the Caribbean and Eastern Europe, while other regions show much lower rates.

The lowest levels reported were in North Africa, Middle-East/ South-West Asia, West and Central Europe and East and South East Asia. Homicide rates in North Africa appear to be the lowest on earth with many countries maintaining rates below 1 per 100,000 inhabitants ( see for details below). Apart from North Africa, such low rates can only be found in some parts of Western Europe.

The differences between different parts of the Western world are particularly noteworthy. North America , here represented by the USA and Canada, stands out with higher rates than both Western Europe and Oceania ( Australia and New Zealand). In terms of homicides Canada is more similar to Western Europe than to its southern neighbors. If Mexico were included in the rates for North America the regional rate would be even higher.

Eastern Europe contrasts starkly with Western Europe, with countries such as Russia ( 19,8) showing extremely high rates. High homicide rates in the former Soviet countries have also been observed in previous statistical overviews ( Aromaa, et al, 2003).

Previous analyses of data from Europe and North America have shown that the levels of various forms of violence are correlated, although not strongly (Van Dijk, 1999). The high homicide rates observed in (sub)saharan Africa and the Americas are accompanied by high levels of robberies, assaults and sexual assaults ( see hereunder).

### National homicide rates

Country rates for homicides are collected through the UN survey, supplemented by data from the WHO report on Health and Violence (WHO, 2002). Table 2 shows results.

**Table 2 World ranking of countries according to rates of homicide per 100,000 population in 2002 or latest available year (110 countries); sources : UN and WHO**

*Fifteen countries with highest homicide rates:*

1	Swaziland	88.6	6	El Salvador	31.5	11	Bahamas	14.9
2	Colombia	62.7	7	Guatemala	25.5	12	Kazakhstan	14.5
3	South Africa	47.5	8	Puerto Rico	20.6	13	Mexico	13.0
4	Jamaica	33.7	9	Russian Fed.	19.8	14	Ecuador	13.0
5	Venezuela, RB	33.1	10	Brazil	19.5	15	Paraguay	12.0

*Selected countries with medium high homicide rates*

16	Estonia	10.4	56	Turkey	3.3	80	Canada	1.7
26	Thailand	8.5	56	Switzerland	2.9	89	Italy	1.1
44	United States	5.6	59	Australia	2.8	90	Germany	1.1
46	Cuba	5.3	67	Sweden	2.5	92	Indonesia	1.0
53	India	3.7	73	United Kingdom	2.0	96	Netherlands	1.0

*Fifteen countries with lowest homicide rates*

97	Bahrain	1.0	102	Austria	0.8	107	Israel	0.5
98	Jordan	1.0	103	Greece	0.8	108	Morocco	0.5
99	Saudi Arabia	0.9	104	Oman	0.6	109	Cyprus	0.3
100	Singapore	0.9	105	Hong Kong	0.6	110	Myanmar	0.2
101	Luxembourg	0.9	106	Japan	0.5	111		

*Source:*

Black= UN Survey on Crime Trends and the Operation of Criminal Justice Systems, 8<sup>th</sup> survey, 2002 data

Blue= UN Survey on Crime Trends and the Operation of Criminal Justice Systems, 7<sup>th</sup> survey, 2000/1999 data

Red= UN Survey on Crime Trends and the Operation of Criminal Justice Systems, 6<sup>th</sup> survey, 1997 data

Green= WHO data from World Report on Violence and Health 2002<sup>3</sup>.

### Diagnosing organised crime with the use of statistical “markers”

According to common definitions of organized crime in criminological literature (Kenney, Finckenhauer, 1995 ; Levi, 2002) defining traits of organized crime are the use of extreme violence, corruption of public officials, including law enforcement and judicial officers, penetration of the legitimate economy (eg through money-laundering) and interference in the political process. These elements are not only incorporated in national anti-mafia laws in some countries, including the USA and Italy (Fijnaut Paoli,

<sup>3</sup> In middle and low income countries the data show significantly more cases of homicide than the UN Crime Surveys, 18 and 45 percent respectively. (See: Shaw, M., Van Dijk, J. and Rhomberg, W., 2003). Therefore these data have been adjusted in order to match the UN data.

2004) but also used as operational definitions by the European police community through the so-called Falcone checklist (Levi, 2002).

If comparing official police-based information on garden variety crimes as burglary or street robbery seems no longer feasible, there is little hope for optimism regarding the comparison of police-based information on more complex crimes. At the global level it is to be expected that the number of police-recorded cases of organized crime correlates *inversely* with the seriousness of the problem. Where organized crime rules, few of such cases will ever be investigated, let alone brought before a court. Statistics on drug seizures can illustrate the point. Seizures of drugs by police or custom authorities of a country are likely to reflect law enforcement priorities and professional capacities rather than the global flow of drugs. In the field of complex crimes, statistics of police-recorded or court-recorded crimes are a source of desinformation.

As discussed above, the level of conventional crime can be successfully estimated through the administering of standardized victimization surveys among the public or samples of business executives. Through direct contacting of key groups of the public, bypassing the domestic legal institutions, at least some of the methodological problems can be avoided. There seems to be no a priori reasons why the same approach could not be followed to estimate the extent of organized crime in a country, for example by interviewing business executives, the key target group of racketeering and extortion, one of the most important manifestations of local organized crime in many countries.

Since 1997 the World Economic Forum has carried out surveys among CEO's of larger companies to identify obstacles to businesses in an increasing number of countries, reaching a total of 102 in 2003. From the onset, one of the questions in these 'executives opinion surveys' asked about the prevalence in the country of '*mafia -oriented racketeering , extortion (imposes or not serious costs on businesses)*'.

An analysis was conducted of the patterns of answers given to this question on perceived mafia prevalence from the seven annual rounds of WEF surveys conducted since 1997. To further reduce sampling error, the scores of the surveys were averaged. The resulting mean scores are based on sample sizes of 500 and over. They reflect the perceived prevalence of organized crime in the period 1997 to 2003 according to business executives.

In order to facilitate further statistical exploration, a composite index was constructed based on the averaged rankings of countries on the WEF surveys of 1997 to 2003 and the assessments of organized crime prevalence of an international risk assessment group (MIG) , covering a total of 156 countries. For an explanation of the methodology of the index, please consult Kangaspunta, Joutsen and Ollus (1998) or Van Dijk (2006). This so-called Organized Crime Perception Index (OCPI) refers to the level of different types of organized crime activities such as extortion and drugs, arms and people trafficking as perceived by potential victim groups and experts. The widespread perception among key persons that such activities are rampant in a country provides by itself no proof that this is actually the case, but it provides ground for further enquiries. It can be regarded as a statistical "marker" of organised crime presence.

As mentioned above, instrumental violence, corruption of public officials and money-laundering are regarded as universal secondary characteristics of organized crime. It is hard to imagine a high level of organized crime in a country without a significant amount of these three systemic mafia-related phenomena. Lethal violence, for example,

is not by itself a unique characteristic of organized crime. Nor is the absence of such violence hard evidence that organized crime is non-existent on the territory. However, a high prevalence of 'killings' in a country can be used a 'marker' of mafia-type criminal activity. Where homicide rates are high, organised crime activity is likely to be significant and vice versa.

Statistical indicators were selected for the prevalence of each of these three defining systemic characteristics or "markers" of organized crime activity in countries: instrumental violence, high-level corruption and money-laundering. In an attempt to develop a proxy measure of 'mob-related violence', rates were calculated of the number of police-recorded homicides per country minus the number of convictions for homicide. Both types of data were drawn from the latest UN crime and criminal justice surveys. The resulting rates of 'unsolved homicides' was used as proxy indicator of 'mob-related homicide'. Similarly a proxy indicator of 'high level corruption' was derived from studies of the World Bank Institute. Indicators of money-laundering and the extent of the black economy were taken from the World Economic Forum reports.

The strong statistical relationships between the organized crime perception index and four other indicators of secondary manifestations of organized crime activity justify the construction of a composite organized crime index combining the five interrelated indicators. An important strategic advantage of the composite index is the incorporation of at least one *objective* measure of organized crime activity, the rate of unsolved homicides according to official administrations. Scores on this composite index cannot be dismissed by governments as being based on 'just perceptions'. The scores are corroborated by the official 'dead body counts' of their own police authorities as reported to the United Nations through the Crime Survey.

Figure 2 depicts the regional distribution on the Composite Organized Crime Index, based on data from world regions. For diagnostic purposes, the picture presents both the exact scores and rank number on the composite index and the rank numbers for the five source indicators used.

**Table 2 Regional mean scores on composite organized crime index (COCI) and data on source indicators : perceived organized crime prevalence, grand corruption, money-laundering, extent of shadow economy and the rates of unsolved murders per 100,000 population**

	Average of the composite organized crime index	Organized crime perception (rank)	Informal sector (rank)	Unsolved homicides (rank)	high level corruption (rank)	money laundering (rank)
Oceania	<b>33</b>	1	1	1	2	1
West and Central Europe	<b>35</b>	2	2	2	4	3
North America	<b>44</b>	4	4	4	6	4
East and South East Asia	<b>45</b>	5	3	7	3	6
Central America	<b>50</b>	4	13	3	8	13
Near and Middle East	<b>50</b>	7	6	11	1	2
<b>World</b>	<b>54</b>					
South Asia	<b>54</b>	14	8	8	7	11
North Africa	<b>55</b>	6	5	6		5
East Africa	<b>55</b>	12	9		11	9
Southern Africa	<b>56</b>	10	12	5	12	10
South America	<b>58</b>	11	14	10	13	12
SouthEast Europe	<b>58</b>	15	10	12	9	14
West & Central Africa	<b>60</b>	13	11	15	5	8
East Europe	<b>70</b>	17	16	14	14	16
Central Asia and Transcaucasian	<b>70</b>	16		13	15	
Caribbean	<b>70</b>	9	15		16	15

The regional scores and rank numbers of the composite index and those on its five constituting indicators show a high degree of consistency. Deviations from the over all pattern are relatively high rank numbers on informal sector and money-laundering of the low crime region of Central America. Among the high crime regions, West and Central Africa shows relatively low rank number on homicides. This result could point to a shortcoming in the available statistics - homicide statistics for Nigeria are for example missing- or to the different nature of organized crime in the region. Such blatant deviations at any rate suggest the need of focussed further research.

#### *Country scores*

The combination of data from different sources allows the calculation of scores for a large number of countries ( see table 3). To facilitate assessments of the organized crime situation of countries both the absolute scores and rank numbers on the Composite Organized Crime Index and the rank numbers for each of the constituting

indicators/markers are included. The rank numbers for different indicators are mostly in the same range as the COCI rank but many deviations can be found. Deviations of single indicators from the COCI rank can point to specific features of organized crime in the country or to deficiencies in some of the measures<sup>4</sup>. In both cases further research is indicated. In some cases the diagnosis can only be very tentative due to lack of sufficient information on the source indicators. At this stage of development, the utility of the index lies in the possibility to carry out analyses of the macro correlates of organized crime rather than in the benchmarking of individual countries (van Dijk, 2006).

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<sup>4</sup> It should also be noted that the total number of observations for indicators is somewhat smaller than for the COCI index, especially the number of observations for unsolved homicides is available for significantly fewer countries (62). The formula used to calculate the index takes this into account.

**Table 3 World ranking of countries according to scores on the Composite Organized Crime Index and source indicators ( 156 countries) <sup>56</sup>**

*Fifteen countries with the highest scores*

Country	Composite organized crime index	COCI rank	Organized crime perception index rank	Informal sector rank	High level corruption rank	Unsolved homicide rank	Money laundering rank
Haiti	<b>100.00</b>	1		1			10
Paraguay	<b>95.74</b>	2	20	2			4
Albania	<b>93.90</b>	3	1		19	2	
Nigeria	<b>91.93</b>	4	7	7	4		11
Guatemala	<b>91.57</b>	5	21	10			1
Venezuela	<b>89.57</b>	6	6	8	12		7
Russian Fed.	<b>88.20</b>	7	14	17	3	4	16
Angola	<b>87.90</b>	8	25	4			9
Ukraine	<b>87.40</b>	9	9	6	2	16	2
Colombia	<b>86.81</b>	10	3	41	26	1	5
Mozambique	<b>86.54</b>	11	42	5			3
Bangladesh	<b>84.69</b>	12	11	24			15
Kazakhstan	<b>83.78</b>	13	49		7	3	
Pakistan	<b>83.71</b>	14	8	9	6		52
Jamaica	<b>83.42</b>	15	17	16			22

<sup>5</sup> Data on organized crime perception that are in red are based on just one value (either WEF, GAD, or BEEPS)

<sup>6</sup> In the calculation of the composite OC index only the figures which are based on at least 2 values are showed. According to the GAD survey however, perception of crime is very high in Iraq, Congo, West Bank and Gaza (all in top 5)

*Fifteen countries with moderately high scores*

Country	Composite organized crime index	Organized Crime COCI rank	Perception rank	Informal Sector rank	High level corruption rank	Unsolved homicide rank	Money laundering rank
Bolivia	79.79	18	41	3	20		19
Mexico	75.03	22	26	31	17		23
Indonesia	74.51	25	13	60	5		42
Peru	72.64	28	32	11	33	5	28
Turkey	72.08	30	55	15	22		26
Brazil	69.24	33	27	37	25		41
South Africa	66.07	38	16	39	38	8	54
Argentina	59.39	48	34	21	30	59	14
Egypt	56.17	56	58	46	36		59
China	55.48	59	35	54	10	46	51
India	53.79	64	56	38	29	33	43
Italy	46.81	69	57	59	35	52	49
United States	36.36	81	85	85	45	15	84
Japan	32.67	86	70	94	27	56	90
Chile	30.59	90	90	74	57	21	85
Canada	25.06	97	93	73	51	62	88

*Fifteen countries with the lowest scores*

Country	Composite organized crime index	Organized Crime COCI rank	Perception rank	Informal Sector rank	High level corruption rank	Unsolved homicide rank	Money laundering Rank
UK	23.90	99	99	84	62		94
Norway	22.08	100	104	90	58	53	82
Luxembourg	21.11	101	107	102			81
Germany	20.21	102	101	89	56	57	92
Switzerland	19.98	103	105	97	65	54	66
Jordan	19.38	104	97	77		51	96
Netherlands	18.91	105	95	92	66	41	93
Denmark	18.41	106	112	86	64	42	89
Sweden	18.30	107	111	80	60	44	98
Australia	16.79	108	106	101	54	37	99
Bahrain	15.28	109	89			49	
Singapore	14.10	110	110	99	61	58	97
New Zealand	12.83	111	109	93	63	48	100
Iceland	12.46	112	114	95			102
Finland	10.41	113	113	98	67	34	101

Within Europe organized crime prevalence increases diagonally from the North West to the South East, with levels being low in England and Germany, higher in Spain and Italy and by far the highest in Russia, Albania and Ukraine.

As said, the country rates should not be taken at face value but be used as a basis for further enquiries. In Asia rates are the worst in parts of South Asia ( Pakistan, Bangladesh). But also the emerging superpowers ,China and India are rated above Italy on this composite index. In the international literature on organized crime India is rarely the focus of attention. Perhaps this is a serious oversight. Research on Chinese organized crime is mainly focussed on Chinese expatriates. Limited available research findings on homeland China point to collusion between corrupt communist party members and local gangs in remote areas ( Zhang, 2002). More research on the role of the organized crime-corruption in these two countries seems warranted.

In Africa, Nigeria, Angola and Mozambique stand out with the highest scores. Nigerian organized crime activity in both the country and the region has been well-documented ( Shaw, 2002, UNODC,2005). A detailed account of how organized crime threatens to penetrate state and businesses in Southern Africa, notably in Mozambique, is given in Gastrow (2003). In Latin America Haiti, Paragua, Guatamala, Venezuela and Colombia show the highest scores. High scores are also observed in Jamaica. None of these scores will come as a surprise to informed readers.

The world map of organized crime emerging from this index differs fundamentally from that of conventional crimes. The perceived prevalence of organized crime and the overall ICVS rates of victimization by volume crime was found to be unrelated ( $r = 0.15$ , n.s.). The level of volume crime in a country says very little about the level of organized crime. This result suggests that levels of volume crime and of organized crime are determined by different factors at the macro level (Van Dijk, Nevala, 2002).

### **Towards a comprehensive index of lawfulness**

In this paragraph the various indices of crime and justice discussed will be integrated into one composite index of 'lawfulness'. This lawfulness index allows a rapid identification of countries where the degree of 'lawfulness' is comparatively high and of those where it leaves something, or much, to be desired. We will also highlight the close links between rule of law and economic performance by showing the relative positions of countries on both 'lawfulness' and the Human Development Index. The results will illustrate the universality of the lawfulness –development link across world regions, regardless of average levels of wealth. In each and every region countries with poor economic performance can seek inspiration for reform in the judicial infrastructures and related economic successes of neighboring countries.

As just said, we have called our 'catch-all' index of security and crime: the index of lawfulness. For a society to be lawful , it is not sufficient if the State plays by the rules and addresses crime problems effectively , civil society must also be part of the solution<sup>7</sup>. This notion has inspired Italian scholars to develop the concept of a '*culture of legality*' or '*culture of lawfulness*'. The concept of 'lawfulness' refers to both the quality of formal institutions upholding the rule of law and the normative orientation of the public. The

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<sup>7</sup> The concept 'rule of law'- or 'Etat de droit' in French- refers to the institutional and legal capacity of governments to uphold the law, including basic human rights. The concept refers to the relationships between the state and its citizens. rather than to the relationships between citizens.lement of the definition..

state and the citizens must mutually reinforce each other in their efforts to ensure a safe and just society<sup>8</sup>.

In the previous paragraphs we presented a series of indicators which capture different aspects of the 'culture of lawfulness'. Statistical indicators were presented of several aspects of the state of crime in countries. In our opinion the most reliable, comparative measure of conventional crime is the percentage of the public victimized by conventional crime as measured by a standardized victimization survey (the ICVS). A new indicator of perceived prevalence of organized crime was constructed, based on surveys among business people and security experts. This indicator was found to be closely related to the rates of unsolved homicides, grand corruption, money-laundering and the size of the informal economy (see tables 3 and 4). Another new indicator of street level corruption was constructed, using ICVS data and data from other sources (Buscaglia, Van Dijk, 2000). This indicator was closely correlated with the well known Corruption Perception Index, annually published by Transparency International, covering a very large number of countries (Transparency International, 2003).

In order to include as many countries as possible, we decided to use the ICVS overall victimization rate, the organized crime perception index and the corruption perception index of TI of 2002 as constituting components of a comprehensive index of lawfulness.

Elsewhere several performance measures were presented of the functioning of the security and justice sector in countries (Van Dijk, 2006). One of the key indicators is a newly designed composite police performance index, based on subjective and objective measures. Widely used is a composite measure of the rule of law, designed by the World Bank Institute (Kaufmann, Kraay, Mastruzzi, 2003). We decided to include these two criminal justice performance indicators in the new index of lawfulness as well.

Our statistical analyses have shown that indicators of organized crime, corruption, police performance and rule of law are closely related to each other. They are also, though less strongly, related to the indicator of conventional crime, the ICVS victimization rate. Using the scores on these five main indicators of the state of crime and justice, a composite index of lawfulness was constructed, covering 158 countries.

This comprehensive index reflects both the quality of domestic legislation and legal institutions (the indicators of police performance and the rule of law) as the extent to which nationals are exposed to the three main types of crime (conventional crimes, organized crime and corruption). It captures in one single index the main dimensions of the statistical data on levels of crime and justice currently available.

The index was constructed in such way that high scores reflect comparatively high levels of justice and low levels of crime. Countries were included in the ranking only if three or more sources were available.<sup>9</sup>

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<sup>8</sup> A culture of lawfulness is described as a culture supportive of the rule of law :

*Without such a culture, there would almost certainly be more crime. Most people act in a manner consistent with the law because of their expectations that others will behave similarly and that this is best for everyone. In the absence of a culture of lawfulness, many will be free to satisfy their immediate needs and preferences, even in the presence of elaborate laws. On the other hand, without laws and law enforcement, the culture of lawfulness is, on its own, unlikely to provide for the rule of law. There must be specific processes for rulemaking and rule enforcing. The culture needs enforcement, but the enforcers need the culture' (Godson, 2000).*

<sup>9</sup> One of the indicators of perceived organized crime prevalence is based on the ratings of an international network of security experts working for one of the major security consultancy firms (MIG). Similarly based on the opinions of locally-based experts The USA-based PRS Group offers country ratings on a variety of risk dimensions to the international business community (www.countrydata.com). One of their risk dimensions is a measure of the degree of law and order in a country, assessing 'the strength and impartiality of the legal system' and 'popular observance of the law'. With these two components the measure captures both the quality of criminal justice responses and the general state of crime. As a check on the soundness of our own comprehensive index of lawfulness, we looked at the relationship between the country scores on this index and on the law and order ratings of the PRS Group. The two measures were found to be highly correlated ( $r = .79$ ;  $N = 156$ ).

Table 4 presents country scores according to this new index.

**Table 4 World ranking of countries according to scores on the index of lawfulness, combining indicators of police performance, rule of law and of the prevalence of various types of crime**

*Twenty five countries with highest country scores:*

1	Iceland	100.0	10	Netherlands	91.2	19	Barbados	83.5
2	Switzerland	99.1	11	Norway	91.0	20	Chile	83.5
3	Denmark	98.0	12	Austria	90.6	21	Jordan	83.2
4	Finland	97.3	13	Canada	89.8	22	Hong Kong	82.5
5	Luxembourg	97.1	14	United Kingdom	89.8	23	Belgium	82.1
6	Australia	95.5	15	Ireland	85.7	24	Puerto Rico	81.4
7	Sweden	94.3	16	United States	84.7	25	Israel	81.4
8	New Zealand	92.2	17	Malta	84.5			
9	Singapore	92.2	18	Germany	84.1			

*Twenty five countries with moderately high scores*

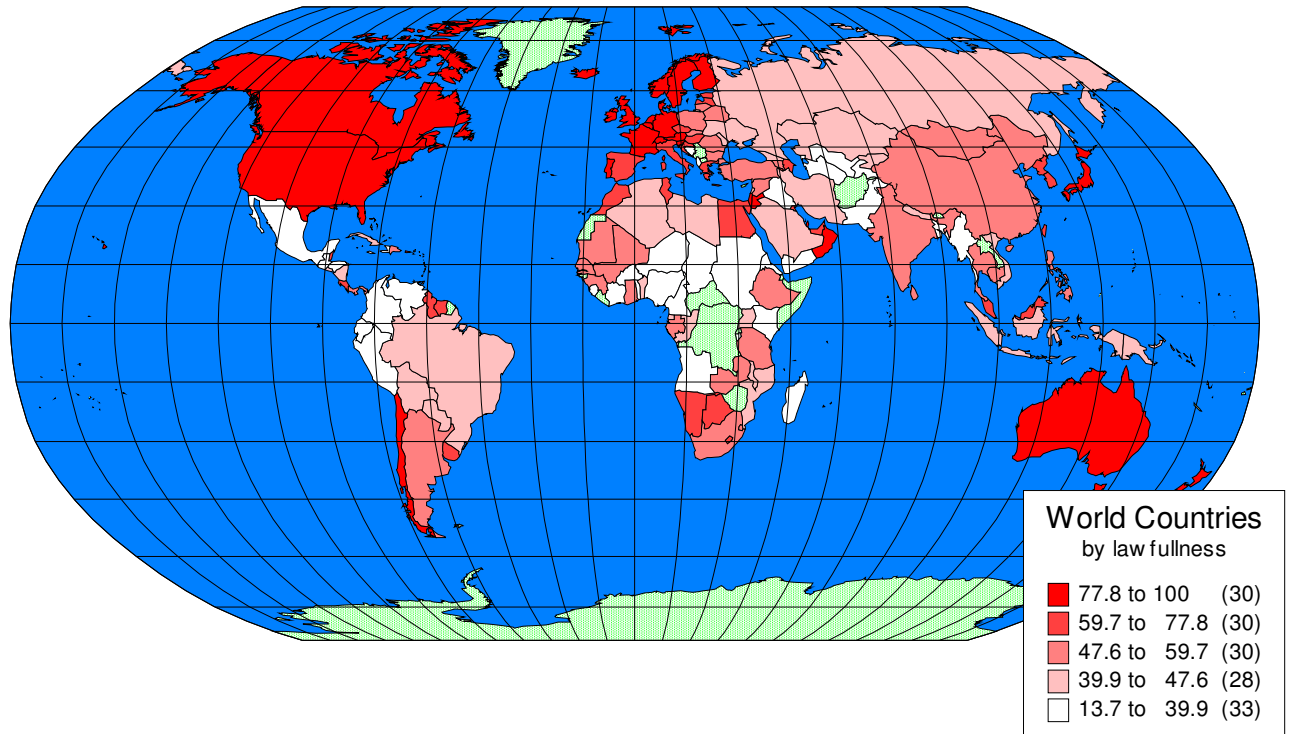
26	Japan	81.0	73	Poland	56.4	112	Cuba	42.2
27	France	80.9	80	Turkey	52.9	123	Iran	40.3
33	Tunisia	77.7	85	Bulgaria	51.4	125	Nigeria	39.7
34	Botswana	76.9	87	Argentina	50.8	129	Albania	38.9
39	Spain	71.7	88	South Africa	50.8	130	Mexico	37.5
47	Italy	68.5	98	Indonesia	46.3	132	Guatemala	36.3
63	Thailand	59.7	104	Russian Fed	44.7	133	Colombia	36.2
65	India	58.8	107	Brazil	43.3			
68	China	58.2	109	Algeria	43.2			

*Twenty five countries with the lowest scores*

134	Sierra Leone	35.0	143	Honduras	32.2	152	Sudan	24.7
135	Cote d'Ivoire	34.2	144	Tajikistan	31.8	153	Kenya	23.8
136	Jamaica	34.1	145	Turkmenistan	29.2	154	Pakistan	23.7
137	Eritrea	33.8	146	Venezuela, RB	29.1	155	Bangladesh	20.6
138	Cameroon	33.7	147	Congo, Rep.	28.9	156	Iraq	15.9
139	Angola	33.6	148	Burundi	26.1	157	Congo, Dem rep	14.5
140	Niger	33.1	149	Myanmar	25.8	158	Haiti	13.7
141	Ecuador	32.5	150	Yemen, Rep.	25.8			
142	Bosnia&Herz.	32.5	151	Chad	25.7			

The country scores are also presented in the form of a global map.

**Figure 2 World map of the degree of lawfulness of countries, reflecting the state of security and crime across the world**



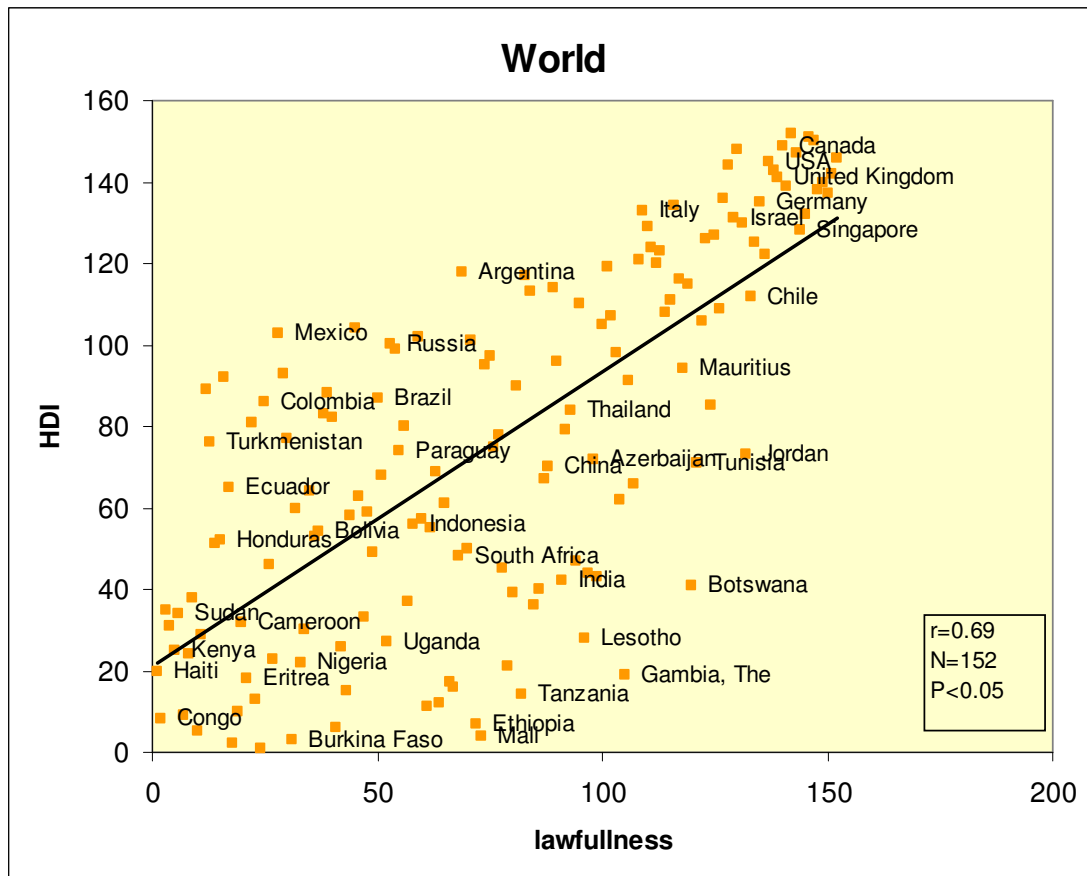
As discussed in chapters seven and fifteen , organized crime, police performance and rule of law are linked to the level of terrorism : where governance and criminal justice are weak, organized crime is more prevalent and more terrorist attacks are launched. Our index of lawfulness was, as expected on the basis of these previous findings, correlated with the index of terrorism ( $r = .37$ ). Although the terrorism index was not itself included in the measure of lawfulness, high scores on lawfulness indicate low levels of all types of crime, including terrorism. It can rightly be seen as a comprehensive measure of the state of security and justice in countries.

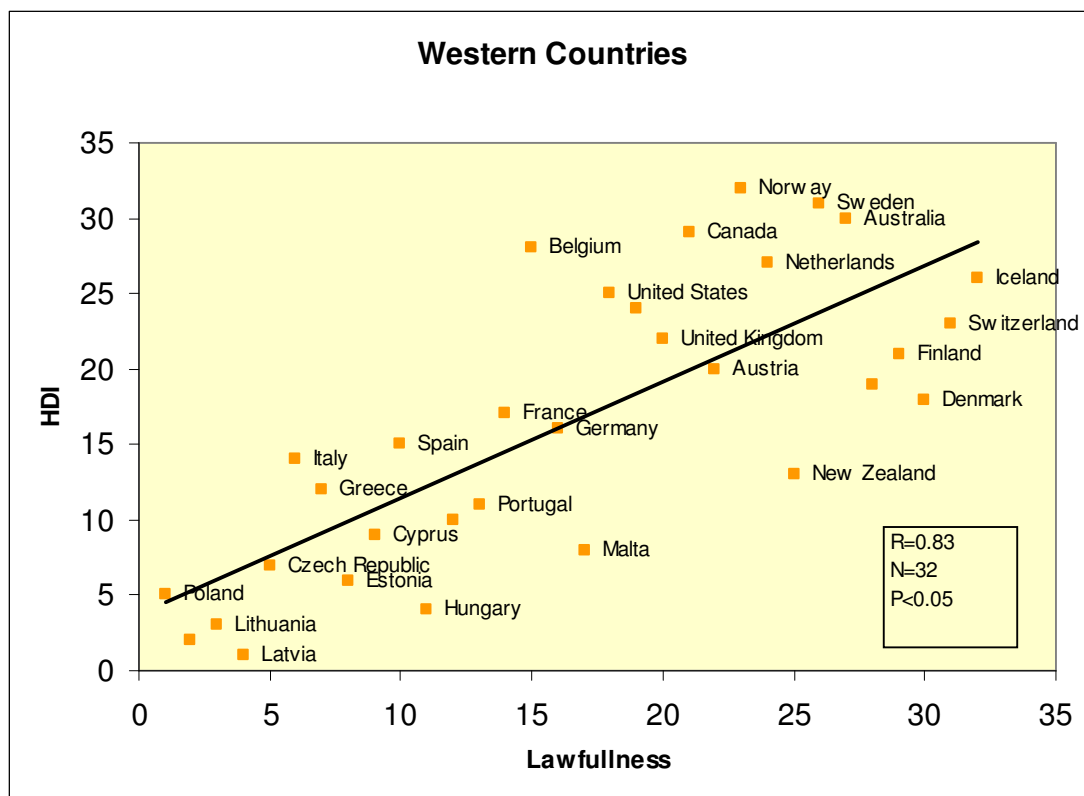
### **Lawfulness and human development**

The governance-economic performance link is well-established in recent work of the World Bank Institute and others ( Kaufmann, Kraay and Mastruzzi, 2003). As was to be expected, our index of lawfulness is strongly related to indices of Human Development ( $r = .69$ ,  $n = 158$ ,  $p < 0.000$ ). The correlation between lawfulness is strongest for the group of Western countries ( $r = .83$ ). Within Europe the correlation is almost perfect ( $r = .91$ ). On the basis of the lawfulness index, the level of human development of individual European countries can be estimated within very small margins. In other world regions the correlations between lawfulness and human development are also strong.

In figure 3 we present a final overview of our analytical results in the form of scatter plots depicting the degree of lawfulness of countries and their level of human development worldwide and for the Western countries respectively. The scatter plots visualize once again how closely human development and lawfulness are linked. Although the precise causal mechanisms at play are not yet fully understood, improvements on the vertical axis depicting human development seem hard to obtain without concurrent improvements in lawfulness.

**Figure 3 Country scores on the comprehensive index of lawfulness and the human development index, globally and for Western countries**





### **In conclusion**

Those convinced of the utility of collecting and analyzing comparative crime statistics for political and academic reasons, find themselves in a quandary. Because of the intrinsic opposition of many governments, the production of international crime and justice statistics is chronically underfunded. As a result, the case for such statistics must be made on the basis of fragmentary, dated and in some respects flawed statistics. In this situation, many experts are inclined to stay on the scientifically safe side: if international crime statistics are presented it is to illustrate their methodological weakness rather than their potential to inform policy making and advance grounded theories of crime at the macro level.

From a scientific perspective such a cautious approach might be commendable. But as Aebi, Killias, and Tavares (2003) as well as Kaufmann et al (2003) have pointed out, it plays in the hands of those who prefer such information not to be, or ever become, available for self serving, political reasons. It means capitulating to political forces that would prefer comparative criminology to remain 'statistically challenged' for ever. In our opinion, the time has come to break the politically imposed *omerta* of criminologists on comparative crime and justice. The new generation of criminologists is well-travelled and increasingly internationally oriented in its interests. They will hopefully revolt against the conspicuous absence of credible international statistics in their chosen field of study. The time has come to fully exploit the potential of survey research among general and special populations to arrive at sound indicators of crime and perceived performance of criminal justice and to combine these with improved statistics on manpower and performance. With the help of such comprehensive set of metrics on crime and justice, macro criminology will finally get out of its slumber and increase the scope and policy impact of the discipline.

## References

- Aebi, M.F., Killias, M., Tavares, C. (2003). "Comparing Crime Rates: Confronting the ICVS, the European Sourcebook of Crime and Criminal Justice Statistics and Interpol Statistics". In *International Comparison of Crime and Victimization: The ICVS*, edited by H. Kury. International Studies in Social Science, Vol. 2, pp. 21-37.
- Altbeker, A (2005), Puzzling Statistics; Is South Africa Really the World's Crime Capital? , *Crime Quarterly*, no 11.
- Alvazzi del Frate, A. (1998), *Victims of Crime in the Developing World*, UNICRI Publication No. 57, Rome.
- Alvazzi del Frate, A. & Patrignani, A. (1995). "Women's Victimization in Developing Countries", in *Issues & Report*, No. 5, UNICRI Series, Rome.
- Alvazzi del Frate, A., Zvekic, U. & Van Dijk, J.J.M. (Eds.) (1993). *Understanding Crime: Experiences of Crime and Crime Control*, UNICRI Publication, No. 49, Rome.
- Aromaa, K., Leppa, S., Nevala, S., Ollus, N. (Eds.) (2003). *Crime and Criminal Justice Systems in Europe and North America 1995-1997*. HEUNI, Helsinki.
- Buscaglia, E. & Van Dijk, J. (2003). "Controlling Organized Crime and Corruption in the Public Sector". *Forum on Crime and Society*. Vol. III, No. 1 & 2. United Nations Publication.
- Fijnaut, C. & Paoli, L. (2004). *Organized Crime in Europe. Concepts, Patterns and Control Policies in the European Union and Beyond*. Studies on Organized Crime, Vol.4. Springer. Dordrecht, The Netherlands.
- Finckenauer J.O. & Waring E.J. (1998). "Russian Mafia in America: Immigration, Culture and Crime". North-eastern University Press, Boston.
- Hatalak O., Alvazzi del Frate, A., Zvekic, U. (2000). *Surveying Crime: A Global Approach*. ISTAT/UNICRI, Rome.
- Kangaspunta, K., Joutsen, M. & Ollus, N. (1998). *Crime and Criminal Justice in Europe and N. America 1990-1994*. HEUNI, Criminal Justice Press, New York.
- Kaufmann, D., Kraay, A. & Mastruzzi, M. (2003). *Governance Matters III: Governance Indicators for 1996-2002*. Policy Research Working Paper 3106. Washington, DC: World Bank. Online: <http://www.worldbank.org/wbi/governance/pubs/govmatters3.html>.
- Kury, H. (2001). *International Comparison of Crime and Victimization: The ICVS*. International Studies in Social Science, Vol. 2., De Sitter Publications, Willowdale, Canada.
- Lafree, G. (1999), A Summary and Review of Cross-National Comparative Studies of Homicide, In D. Smith and M.A. Zahn (eds), *Homicide Studies: A Sourcebook of Social research*, Thousand Oaks, Ca: Sage
- Levi, M.(2002), The Organization of Serious Crime, In: Maguire, M., Morgan, R., Reiner, R. (eds), *Oxford Handbook of Criminology*, Oxford University Press, Oxford.
- Nieuwebeerta, P. (2002). *Crime Victimization in Comparative Perspective. Results from the International Crime Victims Survey, 1989-2000*. Boom Juridische uitgevers, The Hague.
- Shaw, M., Van Dijk, J. & Rhomberg, W. (2003). "Determining global trends in crime and justice: an overview of results from the United Nations surveys of crime trends and operations of criminal justice systems". In *Forum on Crime and Society*. Vol. III, No. 1 & 2.
- Transparency International (2003), *The Coalition against corruption. Annual Report*. United Kingdom: Yeomans press.
- United Nations (1999). *Global Report on Crime and Justice*. G. Newman, (ed), United Nations Office for Drug Control and Crime Prevention, Centre for International Crime Prevention. Oxford University Press, New York- Oxford.
- Van Dijk, J.J.M. (2006/forthcoming), *Crime Diagnostics; breaking the silence of*

*problems of crime, justice and development across the world* , Tilburg : Tilburg University/ Wolf Legal Publishers.

Van Dijk, J.J.M. & A. Alvazzi del Frate (2004), Criminal Victimization and Victim Services across the world: results and prospects of the International Crime Victims Survey. In : *International Perspectives in Victimology*, Vol 1, No1.

Van Dijk, J.J.M., Shaw, M. & Buscaglia, E. (2002). "The TOC Convention and the Need for Comparative Research: Some Illustrations from the Work of the UN Centre for International Crime Prevention". In: Albrecht, H-J. & Fijnaut, C. (Eds.), *The Containment of Transnational Organized Crime. Comments on the UN Convention of December 2000*. Freiburg: Max Planck Institut fur auslandisches und internationals Strafrecht.

Van Dijk, J.J.M. & Nevala, S. ( 2002). "Intercorrelations of Crime". In: P. Nieuwbeerta (ed), *Crime Victimization in International Perspective*, Jur Uitgevers, Boom.

Van Dijk, J.J.M. & Kangaspunta, K. (2000). "Piecing Together the Cross-national Crime Puzzle". In *National Institute of Justice Journal*. US Department of Justice. Office of Justice Programmes. National Institute of Justice. Washington DC.

Van Dijk, J.J.M., R. Manchin, J. Van Kesteren ( 2006), *The Burden of Crime in the EU, key findings of the EU/International Crime Victim Survey 2005*, UNICRI/ Gallup/Europe, Turin (forthcoming).

Van Dijk, J.J.M., Mayhew, P., Killias, M. (1990). *Experiences of Crime Across the World: Key Findings from the 1989 International Crime Survey*. Deventer, Kluwer Law and Taxation Publishers.

Van Kesteren, J.N., Mayhew, P. & Nieuwbeerta, P. (2000). *Criminal Victimization in Seventeen Industrialized Countries: Key-findings from the 2000 International Crime Victims Survey*, Onderzoek en beleid, No. 187. Ministry of Justice, WODC, The Hague.

World Economic Forum. (2003). *The Global Competitiveness Report 2002-2003*. Oxford University Press, New York.

World Economic Forum. (2004). *The Global Competitiveness Report 2003-2004*. Oxford University Press, New York.

World Health Organization (2002). *World report on Violence and Health*, Geneva.

Zimring, F.E. & G. Hawkins (1997), *Crime is not the Problem*, New York : Oxford University Press

Zvekic, U. & Alvazzi del Frate, A. (1995). *Criminal Victimization in the Developing World*, UNICRI Publication No. 55, Rome.