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Hugues Lagrange

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Crime rates in Europe and macro-social context and social policies: A preliminary appraisal

Hugues LAGRANGE

Assessing the state of knowledge on 'social dimensions of public policies and their impact on crime' is one aspect of a reflection on crime prevention and public policies. Crime prevention is embedded in various traditions, socio-legal contexts and socio-economic backgrounds. Therefore we need a preliminary assessment of the crime dynamics and socio-economic situations in Europe. To draw this portrait, considering the states as units, we will first look at the crime dynamics during the last decades. We will then compare the countries in terms of crime levels and socio economic situations. It would have been better to compare crime dynamics and socio-economic evolutions but it is difficult due to the lack of comparative data. By the same token, the state level is not necessarily the best unit, and we will try to provide in a later comparison involving, at least for the biggest countries, infra-national units.

Sources

1 - On crime rates

The data compiled by the group of 'The European Sourcebook Project' on crime, initialy headed by the Council of Europe, give a valuable departure point. Three releases of the sourcebook have been published : a preliminary one for the period 1990-1995, a second one covering the years 1995-2000, and a third one about the years 2000-2003. Rate of offences and offenders, prison population are available on a comparative basis[1]. We used complementarily the Home Office Intenational Statistics (Barclays *and al.* 2001). We could add European victimizations surveys (ICVS, cf. Van Dijk *and al.*)
As far as prevention is concerned, we need to evaluate the level of different categories of crime, the proportion of offenders among youth and adult population, the detention rate. We will consider the number of offences per 100 000 population and the number of offenders per 100 000 by categories of offences.

2 - On socio-economic situation in European countries

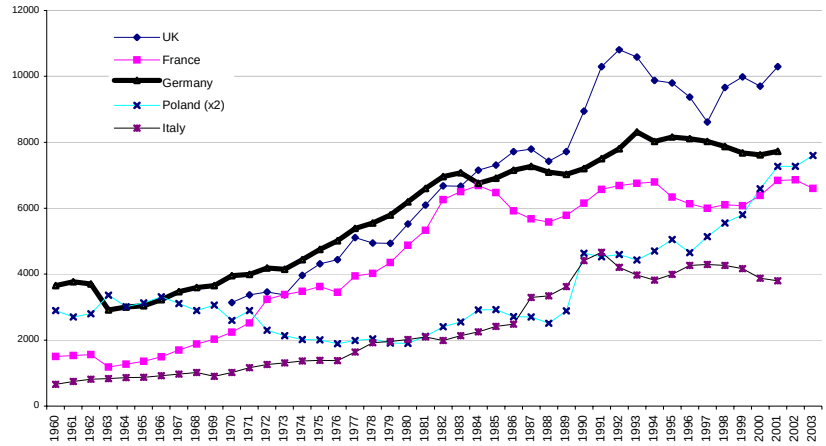
Different sources - Eurostat social cohesion data[2], OECD, ILO, The Luxembourg Income Survey - provide standardised measures of the socio-economic context: measures of per capita income, percent of people under poverty threshold, inequalities, unemployment, but also social indicators about percent of people under poverty level, before and after social transfers, school dropouts, families without employment and dependant children.

Dynamics of overall crime and crime level in European countries

The rate of offences recorded by the police (per 100 000 population) has been rising in Europe throughout the last fifty years. Starting in 1960, the offences' rates grow at the same pace in UK, Germany, France, Sweden, Finland and Denmark up to the mid-eighties. The Netherlands lag two or three years behind. In Italy, Spain, Greece, Portugal the rising of crime rates has waited until the mid-seventies, and in these countries the growth rate remained below the level of the north-western European countries. A third group of nations - Poland Hungary, and other eastern countries - experiences no growth in crime rate up to the nineties, and, if the rise is very sharp by this time, the offences' rate in these countries remain far lower than in the first nations mentioned.

[1] A goal of the WP6 could be to provide comment on the reliability of these data in relation to socio-economic indicators.
[2] Only available for the period 1995-2006.

Offences per 100 000, selected countries 1960-2003



Source: author's computations from Barclays *& al.*, Home Office, 2001.

It is obvious that crime growth in each country is linked to the development of a market economy and to the degree of integration of this country in the world economy[3]. Spain under Franco, Portugal under Salazar, Greece under the 'Colonels' are not fully integrated to the modern world economy ; Italy, an open democratic country since the end of the second World War, is a fragmented nation with a south lagging behind an industrialised north : all these countries have lower crime rates than northern ones. In eastern countries, crime rate stayed at a low level up to 1990; the nineties, which involve a quick shift toward the market economy and a release of the former social control linked to the communist regime (Komsomols, Unions, etc.), has been accompanied by soaring crime rates. In every nation, the rise of the overall rate is strongly linked to the growth of property crime –motor vehicle theft, burglary, other larceny and theft in general. The crime curves of the various European nations reflect at first glance the entrance pace in the modern market economy.

We will now compare countries synchronically, considering average levels during the last two decades, or splitting the period, when it is sound, according to the 'waves' of the European sourcebook.

The crime rate reflects to a large extent the importance of property crime. If we are to interpret crime differences between countries, we must distinguish, at least very roughly, property crime and violent crime. This raises difficulties when dealing with offences like robbery for which the motivation is to steal but the *modus operandi* depends on the accessibility of violent means.

Let consider an offence which is emblematic of violent crime : the mean rate of completed homicide for 1990-2003. There is a clear split between European nations: the eastern countries - Albania, Estonia, Latvia, Lithuania, Ukraine, Russia - have all homicide rates above 8/100 000, the highest levels in Europe. Conversely, homicide rates in northwestern countries are at the lowest levels : between 1 and 2/100 000.

[3] Of which the part of export plus import in the GDP is a possible measure.

Because of the very encompassing definition of the category 'assault', which seems to be recorded in very different ways according to national definitions and policy priorities, it is difficult to consider it as a good indicator of violent crime. Moreover there are inconsistencies in the data published concerning assault in the European Sourcebook.

The robbery rate seems to be more reliable: its distribution is loosely correlated to the homicide rate distribution. Whereas homicide is negatively correlated to all categories of property crime, the association between robbery and property crimes is moderate but direct, showing the dual meaning of robbery.

An offence which is characteristic of property crime - motor vehicle theft - is, during the same period 1990-2003, recorded much more often in Denmark, Norway, Finland, Sweden, UK, Ireland, Belgium but also among countries of south west Europe - France, Italy, Spain than in other European countries. This is also true, to a large extent, for domestic burglary.
Motor vehicle theft, burglary and other property crime are negatively correlated with homicide in Europe during the last two decades.

There are two patterns of criminality, still clearly observable at the end of the twentieth century in Europe. The crime structure of the wealthiest Western and Northern countries is defined by a low homicide rate, but often fairly strong robbery rate and a high non-violent property crime rate; the crime structure of the East European countries is characterised by high homicide rates and low motor vehicle theft, and medium burglary rates.

The southern European countries are the lowest on most crime indexes. But, with respect to crime a converging process is on its way, as in most socio-economic domains, and the boundaries between the three groups of countries we have delineated is much more blurred in 2007 than it was at the beginning of the nineties.

The social context: wealth, inequalities and crime

Reducing poverty, unemployment, school failure and alleviating some consequences of family disruption could impact on the propensity to engage in crime activity and foster social cohesion. Implicitly, it relies on the hypothesis that inequalities, unemployment and crime are correlated. All the available knowledge shows that this is not a simple and straightforward relationship. For example, when dealing with time series, economists and sociologists debate about the complex link between income, prices, unemployment rates and crime rates (see time series analysis performed by Field 1990 ; Hale 1998 ; Deadman, Pyle 1994 ; Lagrange 2001). Socio economic tensions boost crime levels, but it is difficult to distinguish the role of increased opportunities associated with the amount of goods circulating, from the role of motivation stemming for a decrease in legal income as a consequence of rising unemployment. Moreover, the nature of the relationship is historically contingent (see Cantor, Land 1985; Carlson, Michalovski, 1993). Crime is not motivated in the same manner during high growth rate periods - like the sixties and the seventies in Europe - and low growth rate periods - like the nineties.
We will not summarize here the results of these studies; our aim is much more limited. It is only to establish a macro-social descriptive framework

in which the debate on prevention policies can be outlined meaningfully. To provide this macro-social context, we will give some very basic elements on inequalities, including welfare provisions aimed at reducing these inequalities, and give rudimentary correlations between these indicators of social cohesion - or lack of social cohesion - and crime rates.

For the period 1980-2003, computed ratios of earning income between the 1st quintile and the 5th quintile show that earning inequalities have increased in Poland, UK, slightly in Denmark, The Netherlands, decreased in France, been stable in Sweden. They are not available for Spain, Italy, and Greece[4]. But, except in the case of Poland, the evolution of earnings inter-quintile ratios for the whole period 1980-2003 is not conspicuous. Therefore comparing means levels on the last 20 years is sound. The Gini-coefficient of disposable income adjusted for family size around 2000 is strongly correlated with the earnings inter-quintile ratio for the period 1995-2005 (0.91). The trend in long-term unemployment for the same period 1995-2005 are neither significantly linked to GDP per capita nor to inequalities.

Few results emerge when comparing crime rates and socio-economic inequalities or cohesion indexes.

1/ Homicide rates are fairly well correlated with inequalities, the coefficient is stronger with Gini (0.59***)[5] than with the earnings inter-quartile ratio. Conversely homicide is negatively correlated with income per capita (-0.61***).

2/ Robbery is also directly correlated with inequalities measured by earnings inter-quintile ratio (0.44**), but not significantly with income per capita.

3/ Motor vehicle theft is strongly correlated with income per capita (0.62***) and inversely linked to income inequalities (Gini being the best correlate -0.43*).

4/ Domestic burglary is directly correlated with income per capita, 0.59*** for the period 1995-99, 0.42* for the years 2000-03, but not correlated with inequalities.

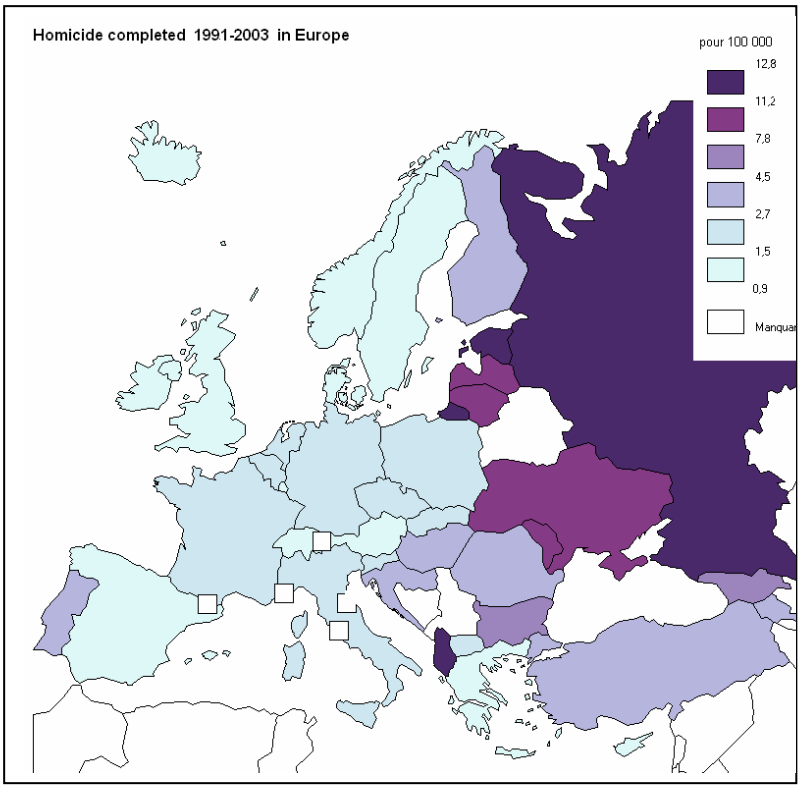
5/ Motor vehicle theft, and to a lesser extent (there are some discrepancies in the measures) domestic burglary and robbery are negatively correlated with long-term unemployment trends, but non-significantly at usual levels. This last result is, at first glance, surprising: in fact this long-term unemployment trend is positive, sometimes in countries where property crime is high like France, and sometimes where it is low like Poland.

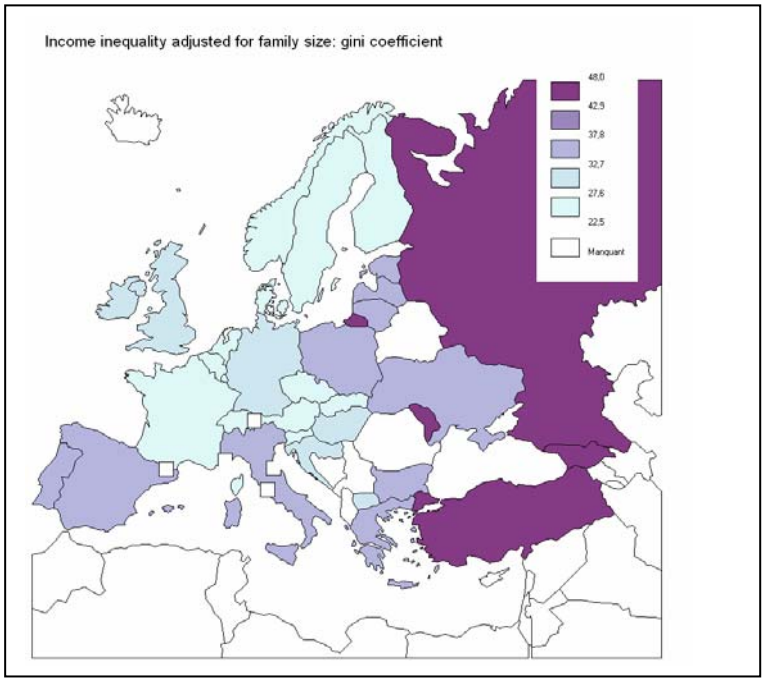
6/ Risk of poverty after social transfers if loosely correlated to robbery, but not with other main crime indexes.

7/ For the period 1995-2005, the average percent of youth under 25 years dropping out school without a diploma, is strongly correlated with

[4] Employment in Europe, European commission, September 2005.
[5] * Means significant at the 5% level, ** at the 1%, *** at the 1/1000.

the level of income inequality (Gini index of income inequality adjusted for family size). This is a measure of the lack of social cohesion, independent of the various crime rates.





Source: OECD, calculations from OECD questionnaire on distribution of household incomes 1999-2000

Most European social and economic policies, under the label social cohesion, aim to reduce income inequalities between nations and among

nations between regions. To what extent will this convergence, at the ecological - national or regional - level, give way to a reduction in interpersonal income inequalities? The question is open. These policies will certainly lead to a converging crime pattern in Europe, which is not the case at the moment. Certain effects will certainly be positive, like a probable reduction in homicide rates in eastern European countries. Meanwhile, analysis by L. Chauvel (*in* Lagrange, 2006), tend to show that there is only a weak relation between inter-individual inequalities and inequalities between nations; it is therefore important to check if the convergence process between nations is accompanied by an increased cohesion within each country or region.
This very rough macro-analysis does not allow us to tell whether reducing inequalities is liable to reduce school dropouts' rate and non lethal violent juvenile crime but this is fairly plausible.

As far as property crime is concerned, the effects of economic growth are much more complex. Reducing unemployment will reduce property crime motivated by lack of opportunities to get jobs. But we also know that economic development, when it destroy community bonds and reinforce wide anonymous settlements, can impact negatively on property crime by enlarging opportunities.

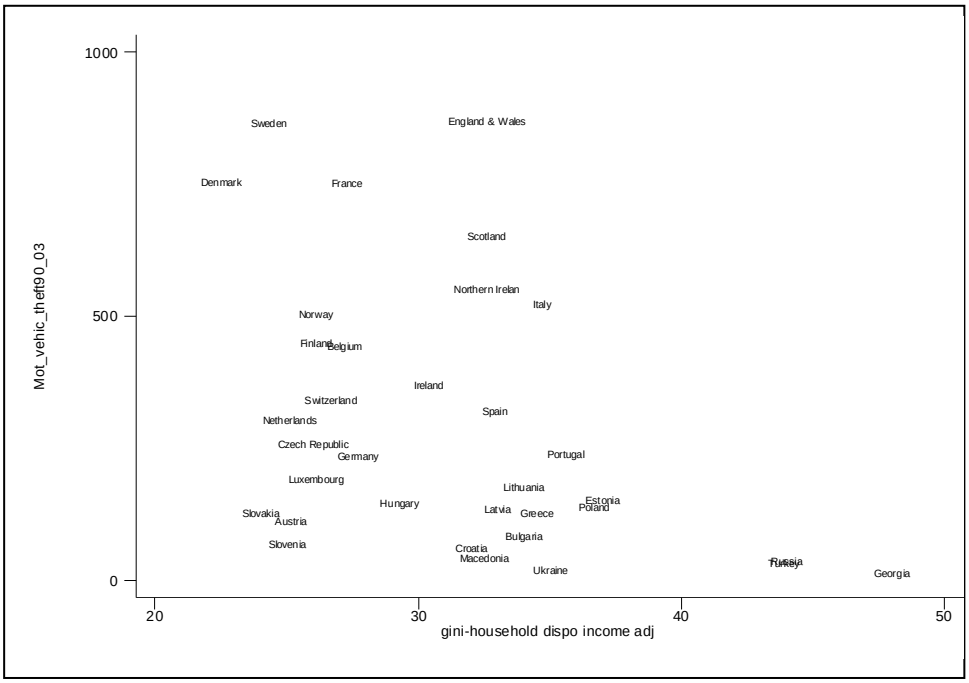
Table 1 - Crime rates in Europe 1990-2003 (European Sourcebook 1995-2003)

per 100 000	Homicide completed	Assault		Motor_vehic._theft	Domestic burglary			Robbery		
	1990-2003	1995-1999	2000-2003	1990-2003	1990-1994	1995-1999	2000-2003	1990-1994	1995-1999	2000-2003
Albania	11,3	7	4	6	21	11	10	8	13	8
Armenia	2,9	32	41	4			26		6	8
Austria	1,1	392	418	103	205	159	162	31,2	26	42
Belgium	1,7	523	590	436		628	774		155	256
Bulgaria	4,6	11	2	77	265	342		54	68	58
Croatia	2,7	26	25	53		60	82	14	13	22
Cyprus	1,2	16	14	24		156	134	2	3	6
Czech Republic	1,7	75	69	249	159	129	112	38	42	48
Denmark	1,2	164	190	745	668	632	627	43	45	59
Estonia	12,9	28	26	143	408	501	524	153	238	286
Finland	3,4	480	540	442	243	207	159	46	42	44
France	2,5	140	198	743	407	383	344	119	139	205
Georgia	5,1	9	13	6					6	23
Germany	1,6	408	496	227	353	369	273	67	80	71

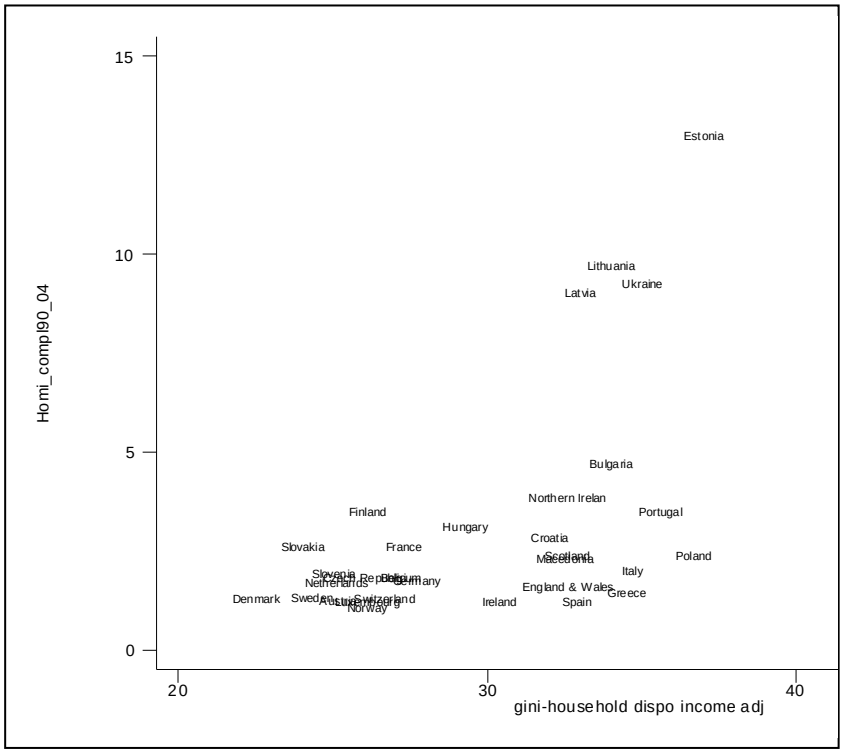
Luxemb.	1,1	268	270	184	201	528	372	67	67	82
Malta	1,2	157	207	285	170	161	176	50	64	41
Moldova	7,9	12	9		136	124		62	71	56
Netherlands	1,6	225	303	295	738	716	0	96	88	125
Norway	1,0	61	78	497	441	298	139	25	30	40
Poland	2,3	80	81	130	176	176	186	44	73	110
Portugal	3,4	379	466	230	215	225	204	133	123	179
Romania	3,1	31	46	9	83	112	69	16	18	14
Russia	12,7	34	37	28	239	201	215	19	87	49
Slovakia	2,5	77	72	120		72	56		24	27
Slovenia	1,8	23	20	60	123	53	140	12	31	26
Spain	1,1	41	47	313		217		220	216	241
Sweden	1,2	632	680	858	240	193	189	69	65	99
Switzerland	1,2	62	80	332		487	336	62	46	54
Macedonia	2,2			33	10	10		4	7	
Ukraine	9,2	32	19	12			139		71	21
England Wales	1,5	574	1040	861	1276	1073	791	98	131	199
Northern Ireland	3,7	597	1305	544	486	524	534	109	77	119
Scotland	2,3	1081	1207	644	1223	655	442	112,6	98	87

Appendices

Motor vehicle theft : mean per 100 000 population 1990-2003 (vertical), and Gini disposable income inequality adjusted for family size around 2000 (horizontal)



Homicide completed, mean 1990-2003 (vertical) and gini income inequality around 2000 (horizontal)



Inter-correlation between socio economic indicators

	GDP p.cap 95-2003	Trend lg term unemploy. 95-05	Ratio earnings 1/5 quintile
Trend lg term Unemployment	-0.2229 (0.2281)° 31		
Ratio1/5 Quintile	-0.4299 (0.0112) 34	0.1006 (0.5904) 31	
Gini Household Income 2000-05	-0.6247 (0.0001) 34	-0.0153 (0.9383) 28	0.9120 (0.0000) 30

° Number in parenthesis are levelof signif.,intergers below represent the number of countries included

Correlation between different categories of offences rate in Europe 1990-2003

	homi_~04	rob9094	rob9599	rob20~03	mot_v~03	dom9094	dom9599
Robbery 9094	-0.0257 0.8833 35						
Robbery 9599	0.1279 0.4254 41	0.9019 0.0000 35					
Rob 2000_03	0.1736	0.8118	0.8015				

	0.2905	0.0000	0.0000			
	39	33	39			
mot_vehic~03	-0.3824	0.4338	0.3761	0.4095		
	0.0163	0.0104	0.0183	0.0119		
	39	34	39	37		
domburg9094	-0.2547	0.5252	0.4323	0.3689	0.6788	
	0.1824	0.0034	0.0192	0.0534	0.0001	
	29	29	29	28	28	
domburg9599	-0.2005	0.4683	0.4844	0.4924	0.6402	0.8994
	0.2482	0.0060	0.0032	0.0031	0.0000	0.0000
	35	33	35	34	34	29
dombu2000-03	-0.0820	0.5581	0.6339	0.6671	0.6130	0.6685
0.7906						
	0.6555	0.0020	0.0001	0.0000	0.0002	0.0003
	32	28	32	32	32	25
0.0000						
	30					

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Contacts

Hugues LAGRANGE, Observatoire sociologique du changement (OSC, Sciences Po., CNRS), Paris
e-mail : hugues.lagrange@sciences-po.fr

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