

# Drug laws indicators through the leximetric approach and relationship with effectiveness: the example of Italy in the period 1991-2018

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Leximetric analysis of drug laws and evaluation of policy effectiveness. 11

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No conflict of interest regarding my presentation

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# topics covered



- ▶ Country chosen as an example of drug laws and policies in 28 years: Italy.
- ▶ Leximetric approach chosen for the **a priori** evaluation of the laws (and policies).
- ▶ Application to the three Italian laws of the past 28 years.
- ▶ Key social and criminal justice indicators chosen for **ex post** efficacy evaluation of laws.
- ▶ Comparative study of leximetric scores and indicator values.

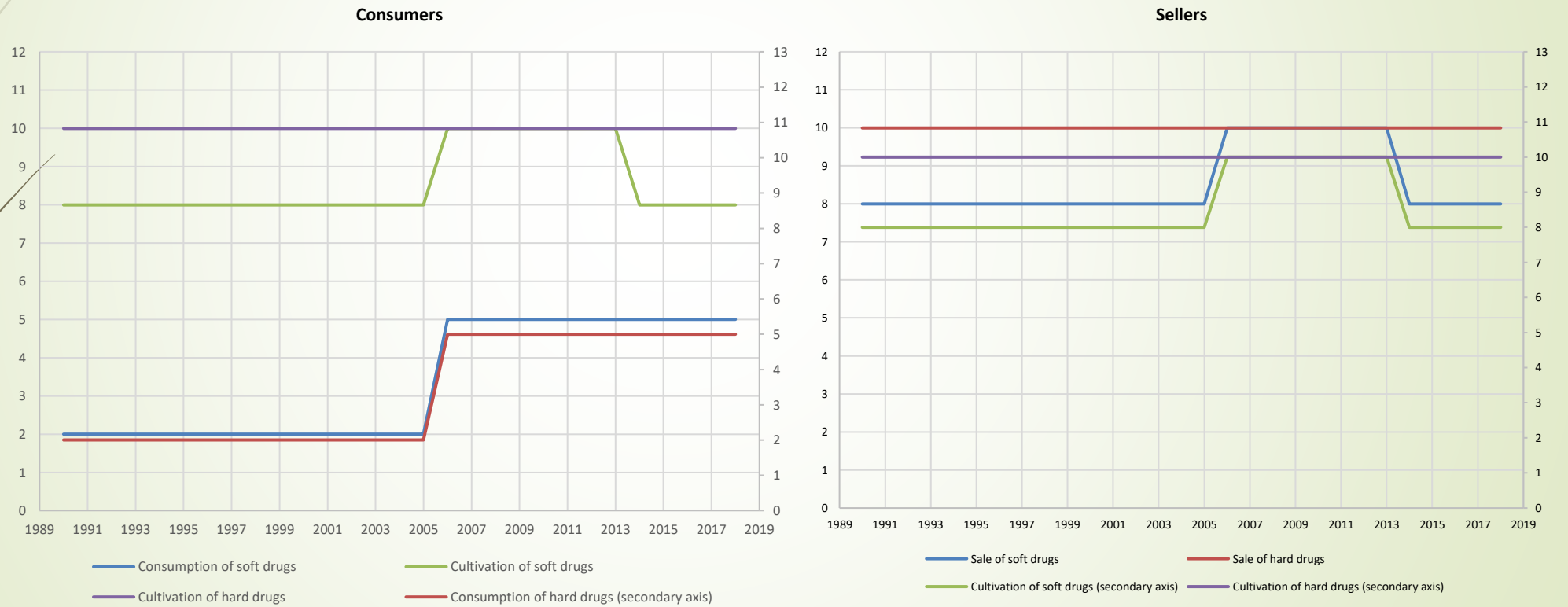
## FROM QUALITATIVE CLASSIFICATION (SEVERITY) TO QUANTITATIVE (LEXIMETRIC) CLASSIFICATION

- Only in one country (Italy) we applied the approach as 3 different anti-drug laws (and policies) have been in force between 1991 and our days:
  - 1991-2006 (the least severe law);
  - 2006-2013 (the most severe and repressive law);
  - 2014-today (the law less severe than the second, but more repressive than the first).
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- Two specific articles of the law in force are measured by leximetric scores:
  - art. 75 (and 75 bis) related to consumers (administrative penalty);
  - art. 73 related to pushers (criminal sanction).

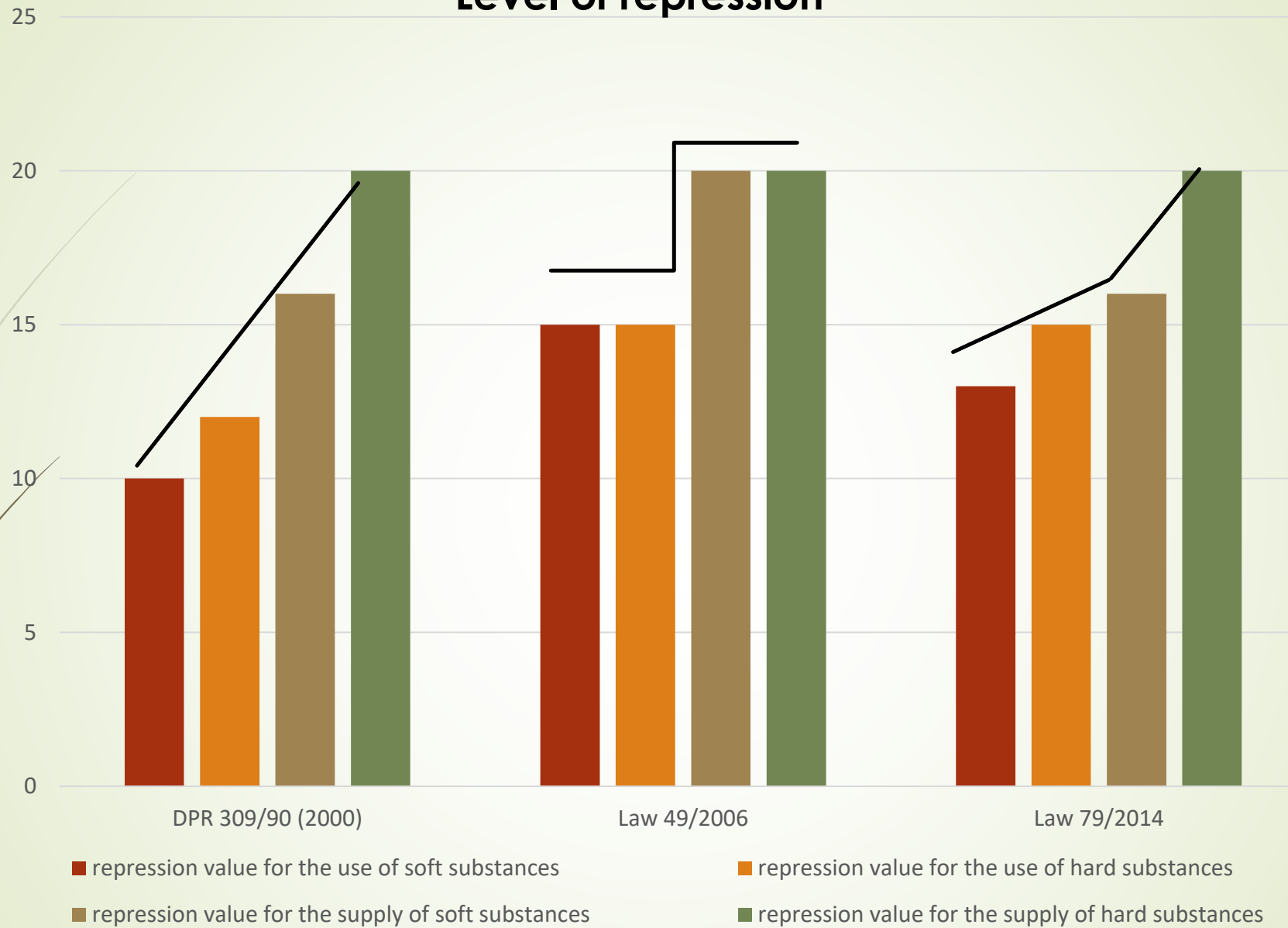
# Leximetric scores choice

- In the three laws more or less harsh consequences for the two groups are provided and therefore a score can be assigned proportional to the expected level of repression.
- The scale chosen is the 'natural' scale because quantitative evaluations represented with natural numbers are more easily understood by politicians, as follows:
- **Administrative penalty: score from 0-5 depending on the degree of strength.**
- **Criminal sanction: score from 5-10, depending on the level of maximum penalty established for the crime.**

# Leximetric scores for consumers and for sellers related to the law in action.



# Level of repression



# Classic key indicators and new indicators to be used for drug policy ex-post evaluation

- The social cost of “illegal” drugs measures, the monetary and social cost of the consequences, most unintended, of the trafficking and selling illegal drugs and the consumption of them depend a lot on the laws and policies adopted, therefore they can be related to leximetric values.
- In order to introduce useful indicators for the posterior evaluation of drug policies it is important to consider the types of specific interventions:
  - - **supply reduction (dealers);**
  - - **demand reduction (users).**

## Global leximetric scores related to drug users and related indicators

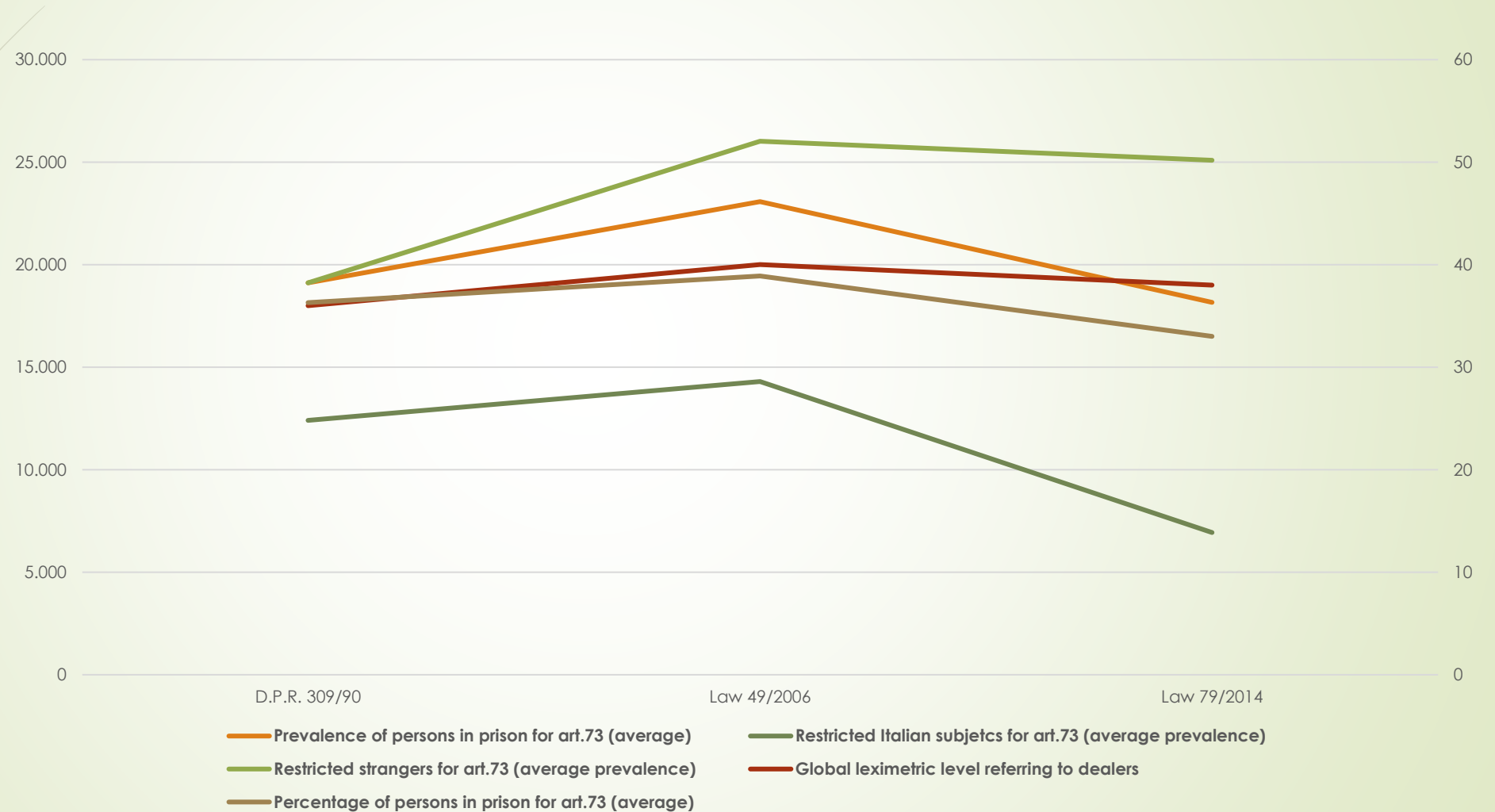
Leximetric values and Indicators related to Social costs	D.P.R. 309/90 (1990-2005)	Law 49/2006 (2006-2013)	Law 79/2014 (2014--)
Global leximetric level referring to users	<b>22</b>	<b>30</b>	<b>30</b>
Administrative sanctions for those reported art. 75 (average % over the period)	36.6	76.6	91.4
Change in annual incidence in therapeutic public services over the period (%)	+5.8	-20.8	-31.
Change annual prevalence in therapeutic public services over the period (%)	+72.9	+3.7	-12.5
Average expected length of therapies over the period (in years)	4.2	5.1	6.5
Average social cost over the period (Prevalence multiplied by expected therapy duration)	571,696	862,847	877,603
<b>Poly-drug use indicator PDS (on personal health) at 15 years (ESPAD) (average over the period)</b>	N.A. it is known that poly-drug use in the '90s was not widespread	0.47 (linked to the market: poly-drug supply induced poly-drug use)	0.38 (poly-drug supply is hampered and poly-drug use is reduced)



## Global leximetric scores related to drug dealers and related indicators

Leximetric values and Indicators related to Social costs	D.P.R. 309/90 (1990-2005)	Law 49/2006 (2006-2013)	Law 79/2014 (2014--)
Global leximetric level referring to dealers	36	40	36
Prevalence of persons in prison for art.73 (average)	19,115	23,074	18,153
Percentage of persons in prison for art.73 (average)	36.3	38.9	33
National Statistical Institute (Istat) estimate, according to Eurostat method, of annual market growth in the period (average of revenue for criminal organizations)	No estimate yet	+0.65 billions	+0.43 billions
Average number of market workers at risk of entering prison for art.73 (estimated)	N.A.	585,444	487,306
Average number of market workers aged <20 at risk of entering prison for art.73 (estimated)	N.A.	29,800	11,200

# Main Output-driven indices and leximetric scores corresponding to art. 73 of the 3 laws



## New indicators from previous EU projects

<b>Poly-drug use indicator PDS (on personal health) at 15 years (ESPAD) (average over the period)</b>	N.A. it is known that poly-drug use in the '90s was not widespread	0.47 (linked to the market: poly-drug supply induced poly-drug use)	0.38 (poly-drug supply is hampered and poly-drug use is reduced)	-19%
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The personal poly-drug use indicator is derived from the total frequency of use of all substances in a specific period and the weighted average obtained by multiplying the frequency of use of each substance by the substance's harm score according to van Amsterdam et al. (2010 and 2015). Several project data-sets show that poly-drug use stems from poly-drug sales, encouraged by the law equating soft and hard substances (Poly drug seizures +3% in 2006).

<b>Average number of market workers at risk of going to jail for art.73 (estimated)</b>	N.A. Data not available	585,444	487,306	-17%
<b>Average number of market workers aged &lt;20 at risk of going to jail for art.73 (estimated)</b>	N.A. Data not available	29,800	11,200	-63%

The estimate of the population of drug dealers at risk of incarceration is obtained using the truncated Poisson method (Bouchard and Tremblay, 2005) based on appropriate data provided by the Ministry of Justice Department of Prisons

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Thank you very much for your  
attention





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Carla Rossi and Susanna Conti editors

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