

Quantification of IPR infringement in the Observatory

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Infringement quantification studies

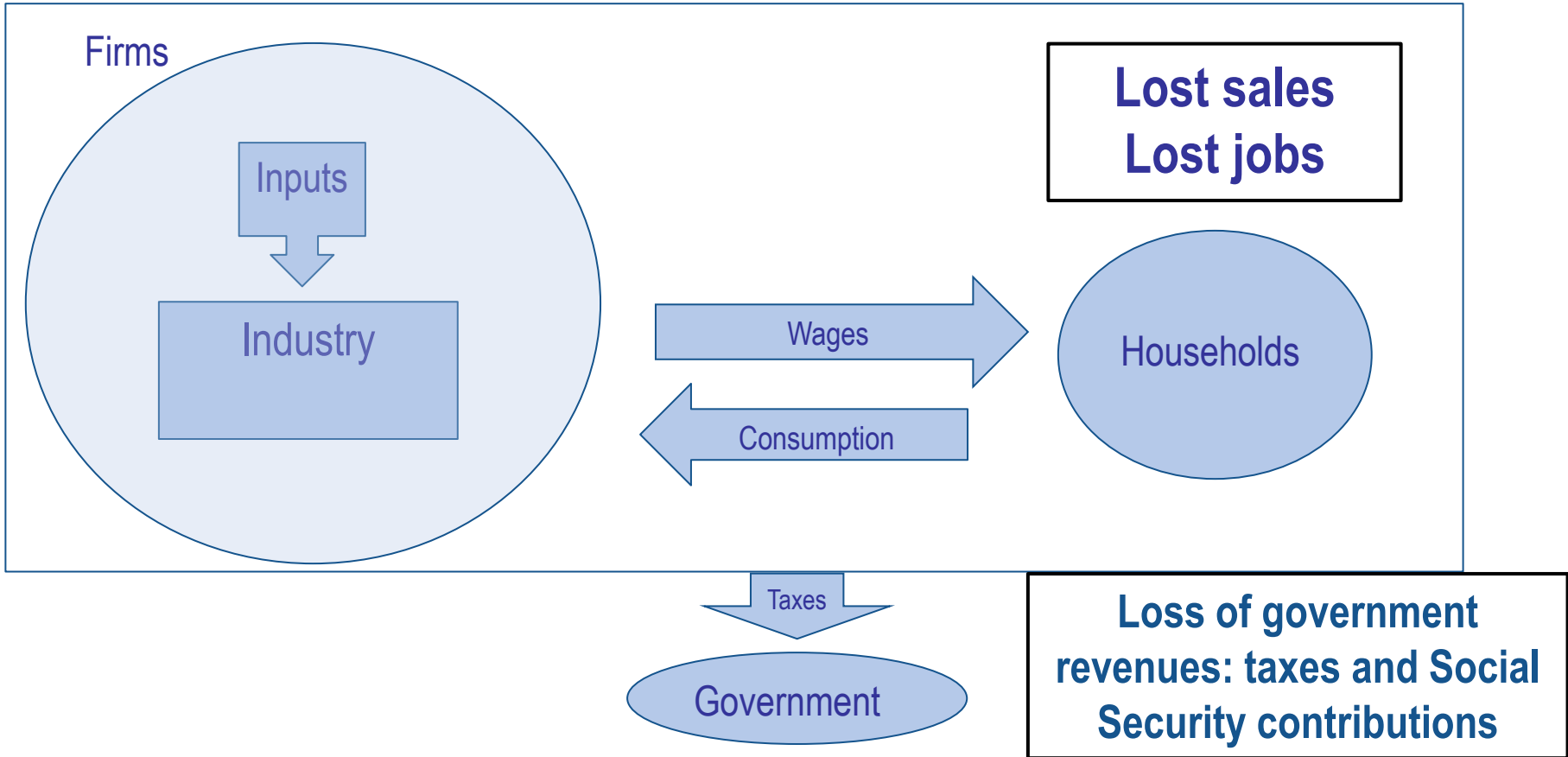


- Trade in counterfeit goods (joint study with OECD)-published 18/4/2016
- **Sectorial studies on impact of counterfeits – 6 published to date**
- Digital content – ongoing
- Geographical Indications – published 25/4

Sectorial studies

- Objective: to quantify the extent and impact of counterfeiting in the EU in sectors thought to be particularly sensitive
 - Reduced sales by legitimate businesses
 - Reduced tax revenues
 - Lower employment
 - (Costs of enforcement, both public and private)

Infringement: Impact on the economy



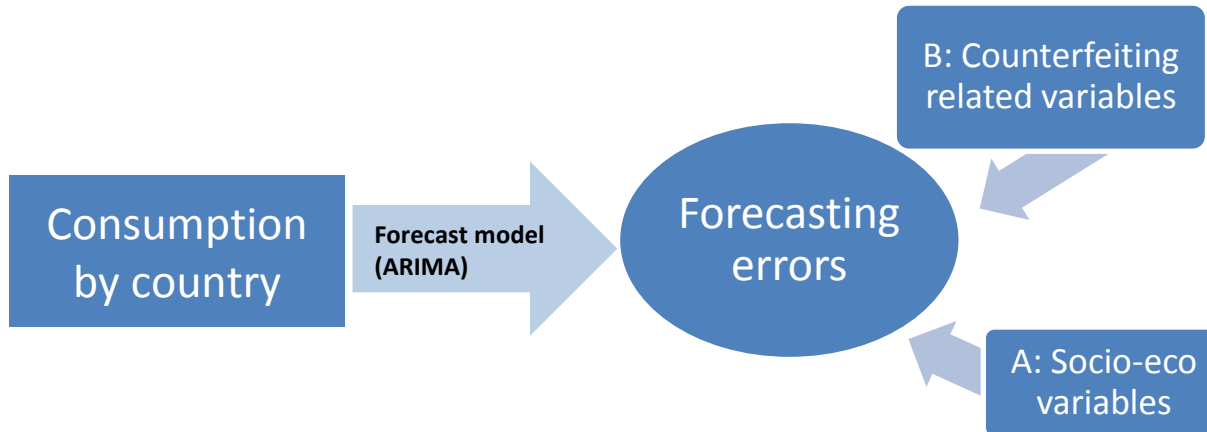
Other costs: excise taxes and other revenue, costs of enforcement, administration, awareness campaigns, health and safety consequences...

Sectorial studies of impact of counterfeit goods

- ✓ **Perfumes and toilet preparations:** € 60 billion
 - ✓ ~~Industrial gases:~~ € 14 billion
 - Medicines: € 288 billion
 - Tobacco products: € 64 billion
 - ✓ **Clothing and footwear:** € 270 billion
 - Vehicle parts: € 204 billion
 - ✓ **Watches and jewellery:** € 15 billion
 - ✓ **Luggage and handbags:** € 15 billion
 - Pesticides: € 12 billion
 - ✓ Spirits: € 15 billion
 - ✓ Wine: € 26 billion
 - ✓ ~~Beer:~~ € 42 billion
 - ✓ **Sports goods:** € 8 billion
 - ✓ **Games and toys:** € 11 billion
 - Computers: € 69 billion
 - ✓ Music: €3 billion (to be published 24 May 2016)
 - Smartphones: € TBD (in collaboration with ITU)
- Joint report (to be published June 2016)*

Sectorial studies: methodology

1. Construct forecasting model (ARIMA) for consumption by country
2. Analyse the forecasting errors from stage 1 and explain these errors with relevant explanatory variables



2nd stage: econometric model

$$q_{it}^* = \alpha * X_{it} + \beta * Z_{it} + \varepsilon_{it}$$

q_{it}^* is the relative forecasting error in country i and year t (from 1st stage)

X_{it} is a matrix of explanatory variables unrelated to counterfeiting (A)

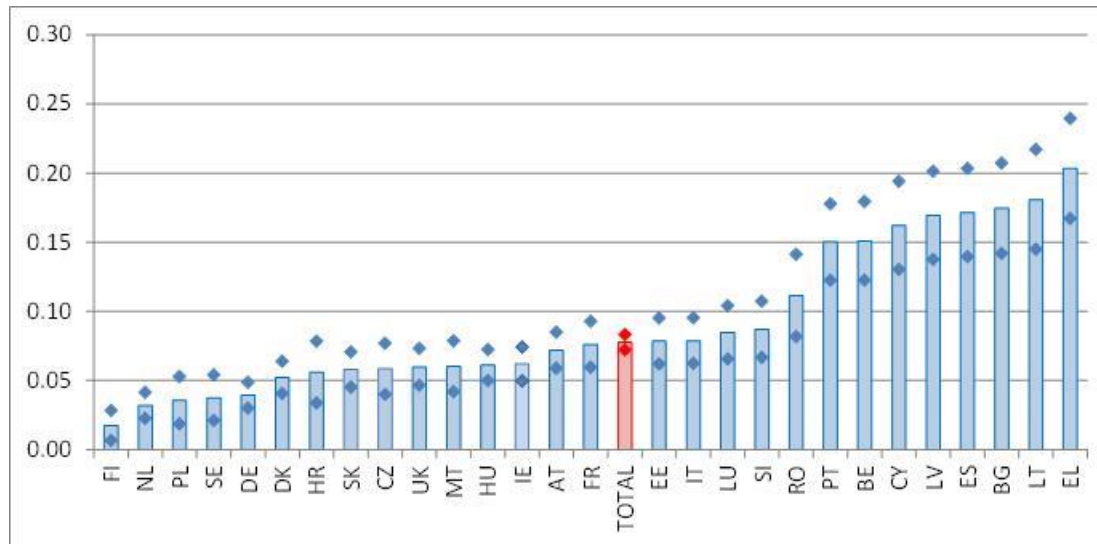
Z_{it} a matrix of variables related to counterfeiting (B)

ε_{it} is the remaining error

Explanatory variables

- Variables related to demand for the goods in question, such as:
 - GDP or per capita income
 - GDP growth
 - Prices
 - Demographic variables
- Variables related to counterfeiting, such as:
 - Income distribution (population in risk of poverty, Gini index)
 - Indexes of corruption, government effectiveness, regulatory quality
 - Attitudes towards IPR, as revealed by IP Perception Study and other surveys

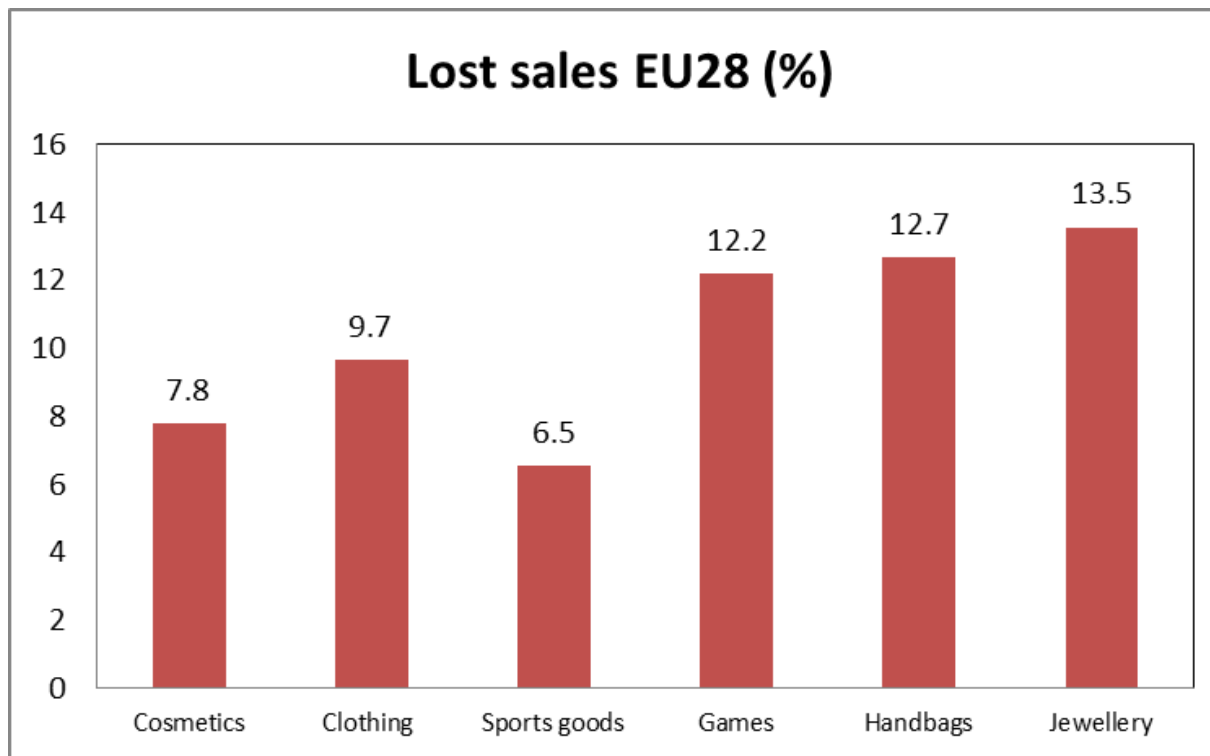
Example of results: lost sales for perfumes and toilet



The average over five years of total counterfeiting effect estimated for EU28 is **7.8% of consumption (4.7 billion €)**. *This is a **DIRECT** estimate of sales lost by industry in the EU as a result of counterfeiting.*

DIRECT effect on employment = 51,561 jobs.

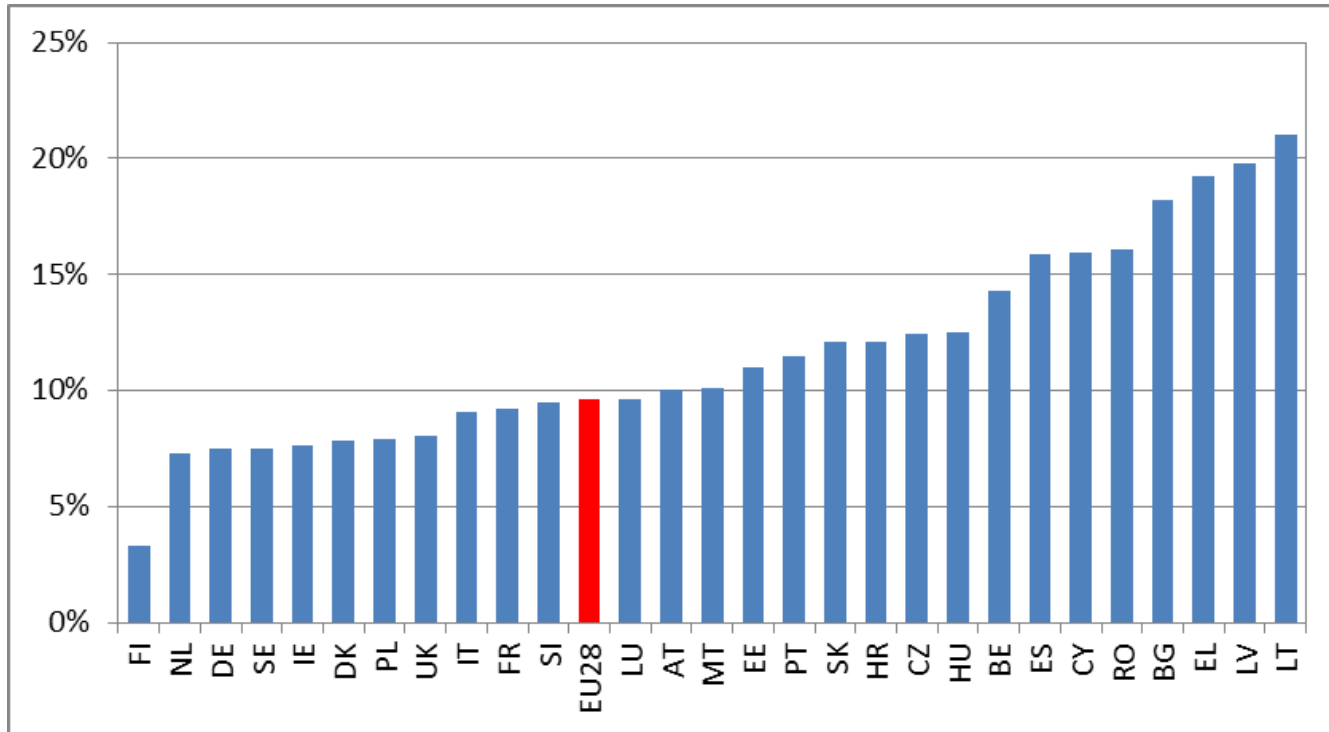
Sectorial studies: summary of results for 6 sectors



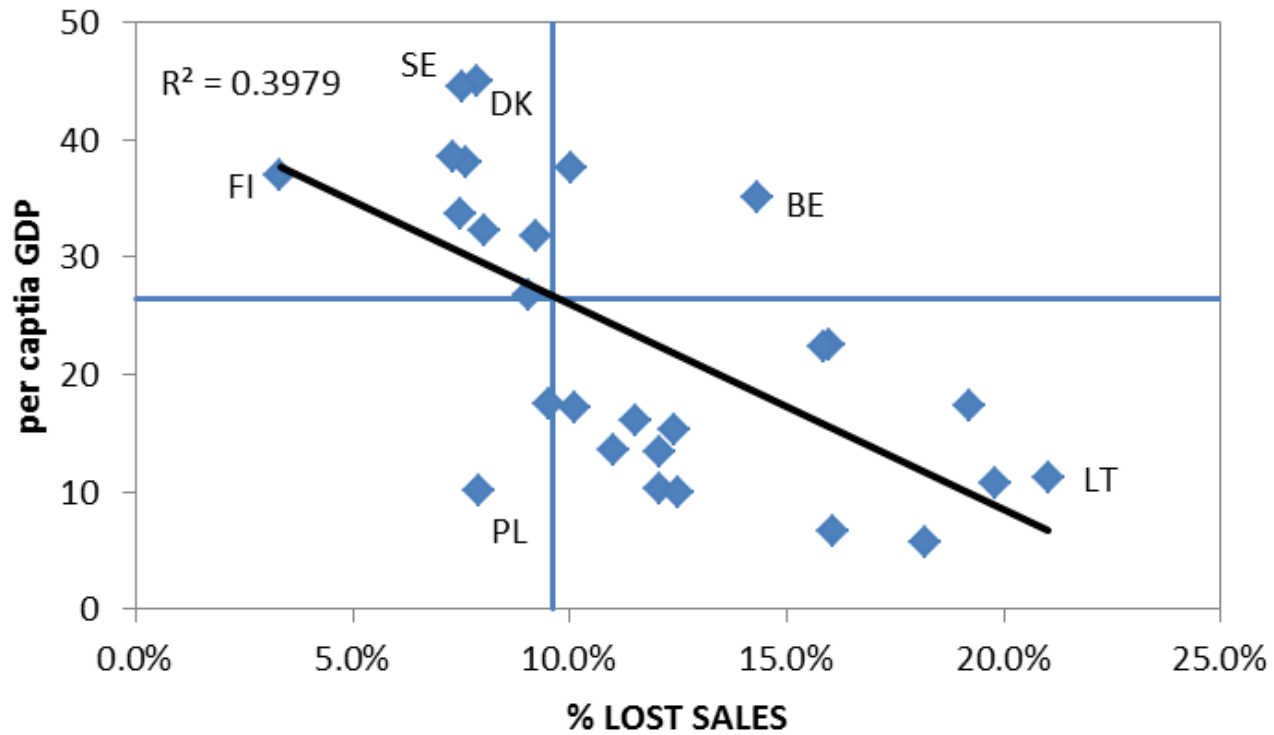
Direct effects:
Lost sales: €36.6 billion
Lost jobs: 451000
Lost taxes: €11.5 billion



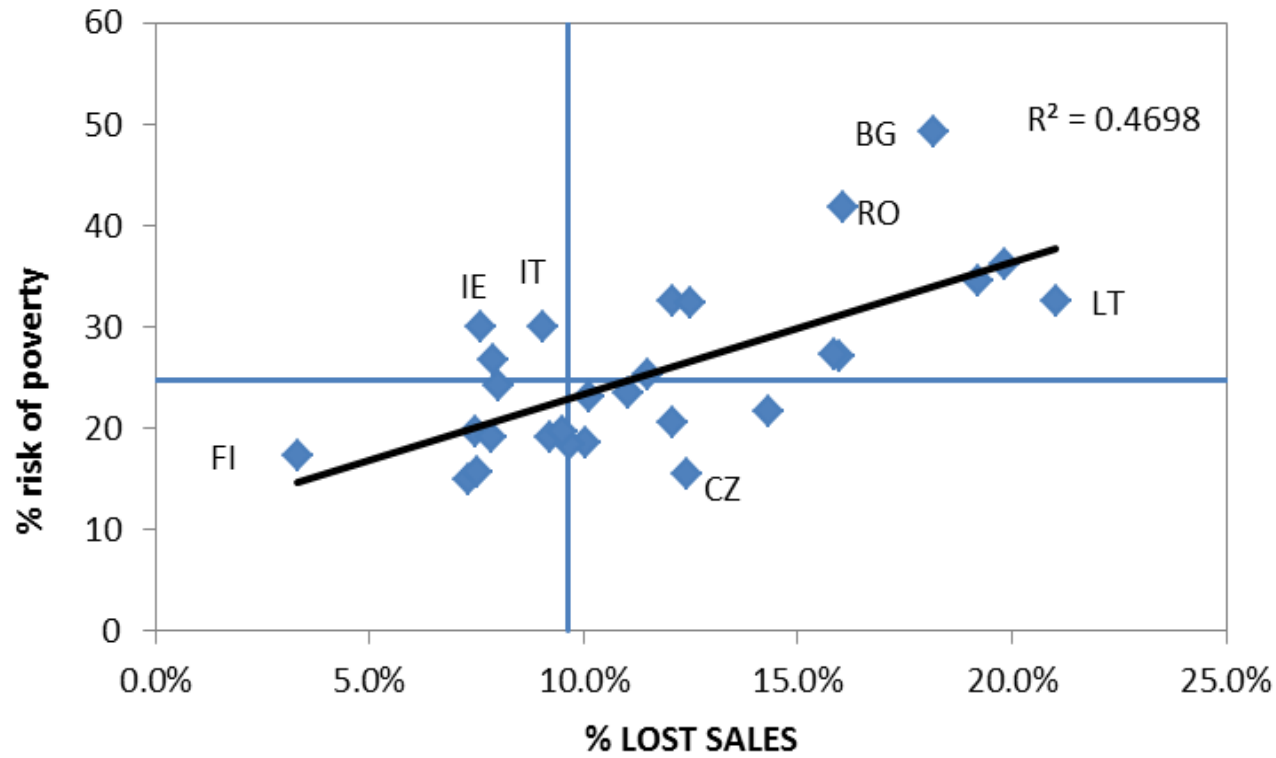
Direct effects on sales by MS



Lost sales (%) and level of GDP/capita



Lost sales (%) and inequality





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Thank you