



# Counterfeiting & Piracy

## Measurement issues of **magnitude and impact**

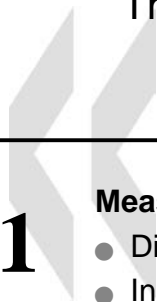
OECD / WIPO

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## This presentation will **focus on**

>> **issues** concerning...

**1**

### Measuring the magnitude and scope (extent)

- Direct methods
- Indirect methods

**2**

### Estimating the impacts and effects

- How can the impacts and effects be quantified ?
- How are the effects related to the magnitude of counterfeiting and piracy?

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# Measuring the **magnitude** and **scope**

## Counterfeiting & Piracy

How can we obtain measures

**Directly?**



Consumer surveys

Enforcement statistics



Sampling

Producer surveys

## Direct measures >> Enforcement statistics

### Useful for information on

- **Extent** of product infringements (*physical seizures and legal actions*)
- **Magnitude** of infringements (*legal actions*)

### Issues

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#### Physical seizures

- **Hard to know** % of infringing products seized
- Seizure data may be **biased**
  - **Investigation process** behind seizure actions
  - Seizures follow **profiling schemes**

#### Legal actions

- Data is influenced by
  - **Ability to discover** existence and source of infringements
  - The **rights holder's interest** in initiating challenge

## Direct measures >> Consumer surveys

### Useful for information on

- Consumer **attitudes** and **behaviour**
- **Extent** and **intensity** of consumption
- Consumer **awareness** of consumption

### Issues

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#### General concerns

- Surveys are **sensitive to the structure of questions**
- Results may be **sensitive to cultural** and **socio-economic** factors
- **Difficult to generalise** from extent and intensity patterns

#### Other concerns

- Good for specific products, **less valuable for broader analysis**
- Actual purchasing may **not be directly related to attitudes**
- Surveys most **revealing** when **consumers are aware** of their counterfeit consumption

## Direct measures

>> Producer surveys

### Useful for information on

- **Types** and **extent** of infringement activity
- Information on associated **sales** and **profit losses**
- **Magnitude** of counterfeiting that consumers are less aware of

### Issues

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- Infringement activity measures often based on **company perceptions**
- Producer and distributor surveys are likely to be **sensitive to confidentiality**

## Direct measures

>> Sampling

### Useful for information on

- **Magnitude** of counterfeiting
- and especially so for **deceptive infringements**

### Issues

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- **Difficult** and **expensive**

How can we obtain measures

**Indirectly?**



Enforcement statistics

Consumer surveys



Producer surveys

Sampling

How can we obtain measures

**Indirectly?**



Enforcement statistics

Consumer surveys



Producer surveys

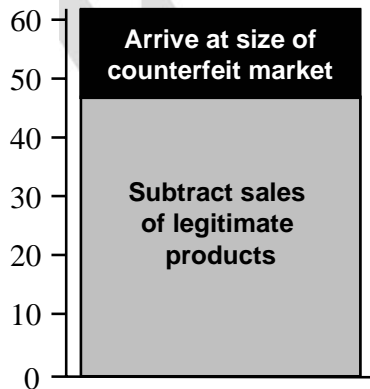
Sampling

**through modelling  
using direct measures  
as inputs**

## Indirect measures

>> Modelling

Common approach...



### Issues

- Estimation of total market size can be based on **several inputs**
  - Consumption of **related products**
  - Consumer/producer **surveys**

**Not easy to do!**

## Indirect measures

>> Regression analysis

### Legitimate sales regression

1. **Estimate sales** model for product in **reference country**
2. Use model estimates to **predict sales in other countries**
3. In the other countries **compare predictions with actual sales**

### Piracy levels regression

1. **Estimate piracy** model for countries with good data
2. Use model estimates to **predict piracy levels** in country with poor or no data

### Issues

#### Legitimate sales regression

- Low level of counterfeiting in reference country must be known
- Assumes similar sales model across countries

#### Piracy rate regression

- Dependent on existing piracy data
- Assumes piracy can be explained by same factors across countries
- Mostly used for explaining piracy and not predicting



How can we quantify impacts

**Directly?**

- on **companies**
  - Sales revenues
  - Profitability
- on **governments**
  - Tax revenues
- on **consumers**
  - Health and safety
  - Economic effects

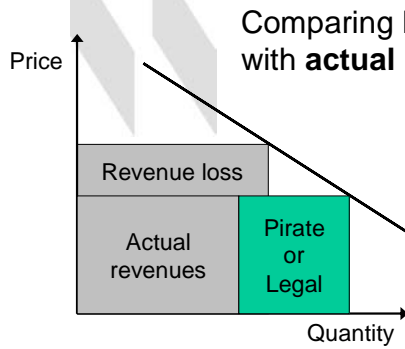


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## Direct effects

>> on **companies**

Effects on **revenues and profits**



### Critical elements of analysis

- How is legitimate demand affected by counterfeit presence ? (*awareness & product substitution*)
- What is the supply of counterfeits (*counterfeit assumption necessary*)
- How responsive is counterfeit supply to legal markets

## Direct effects

>> on **governments**

Tax **revenues losses** are based on **revenue and profit losses** of companies

## Direct effects

>> on consumers

Economic, health and safety implications

### Issues

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- General lack of data on effects on health and safety
- Calculation of economic effects requires information on prices – which is not readily available

## Indirect effects

On economic and firm performance

- International investment and trade
- Employment
- Economic growth
- Innovation
- Expenses on protecting properties



Other

- Effects on organised crime

## Indirect effects >> macro-economic models

By analyzing '**shocks**' to the economy *through*...

- Reductions in **investment**
  - caused by profit losses from counterfeiting
- Change in **consumption patterns**
  - redirected from counterfeit to legitimate products

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### Issues

Modeling enables **concrete estimates** on **GDP, tax revenues** and **employment**

...but estimates depend critically on the **underlying driver**

(i.e., investment reduction or change in consumption)

...and different approaches can lead to **large impact differences**

## Indirect effects >> related variable analysis

If the **strength of intellectual property rights (IPR)** can be **related to** the **magnitude of counterfeiting** across countries

then analyze **impact of IPR on economic performance**

- Economic growth
- International trade and investments
- Innovation

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### Issues

- Indications of positive IPR effects, but **evidence is mixed**
- **Unclear relation** between IPR and counterfeiting
  - Becomes **difficult to determine impact**



**Thank you for listening**