

# Europe's cultural consumption in the digital age: Does fiscal policy matter?

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# **RICHES**

RENEWAL, INNOVATION AND CHANGE:  
HERITAGE AND EUROPEAN SOCIETY

# French VAT rate on ebooks ruled illegal

- France and Luxembourg lost their battle to apply reduced VAT rates to ebooks.
  - European court decides that the 5.5% rate imposed by France is illegal (same for the 3% of Luxembourg).
  - France and Luxembourg's argument that ebooks should be considered a good rather than a service.
  - The VAT rate is established based on the carrier and not on the content, resulting in a negative incentive for technologic development in Europe.



# Motivation

- Our times (we live in the Digital Age!) are extremely interesting and very dynamic.
  - Making now the right choices can/will have effects on future generations.
- Enlarging cultural audiences is of great importance to policy makers, NPOs and individuals.
  - Creative Europe 2014-2020: budget of €1.46 billion (9% higher than its predecessors).
  - So far, not much has been looked at fiscal policy and how it can be harnessed to achieve the goals of cultural policy.

# Cotribution

- Document fiscal rates on cultural goods and services in EU over time.
- Shed some light on the correlates of tax rates.
- Attempt to study the effects of fiscal incentives.
  - The impact of reduced rates on:
    - prices of cultural goods and services.
    - cultural expenditure of households.

# Background

Governments support production and consumption of the arts and culture through:

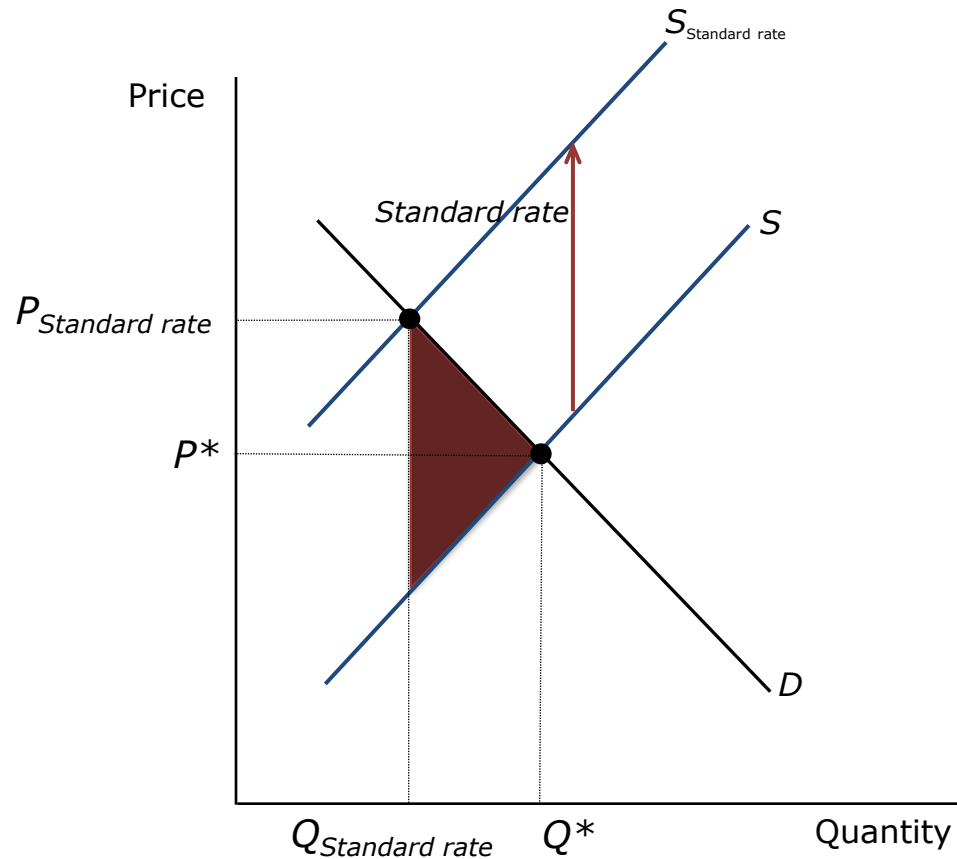
- **Direct financing** (e.g., grants and subsidies)
- **Indirect financing**, i.e. tax rules which have two main modalities:
  - Tax deductions to gifts (also in-kind)
  - **Reduced VAT rate** (only in EU)

# Literature

- Feld, O'Hare and Schuster (1982) and Schuster (1986) on donations (and income/wealth tax deductions), largely in the US.
- Reduced VAT rates to stimulate cultural activities has received less academic attention, compared to the multiple forms of tax deductions (O'Hagan, 2003, 2010).
  - There is limited documentation on cultural tax expenditure because it is difficult to estimate costs beforehand, it requires a high level of detailed reporting, and it is hardly recognized as a state expenditure by the public.
- Prieto-Rodriguez et al. (2005) estimate expenditure and price elasticities for various groups of goods (admission to arts and entertainment activities; books, magazines and newspapers; films and music).
  - Three alternative cuts in the VAT rate on cultural goods in Spain are microsimulated and evaluated in terms of revenue and welfare.

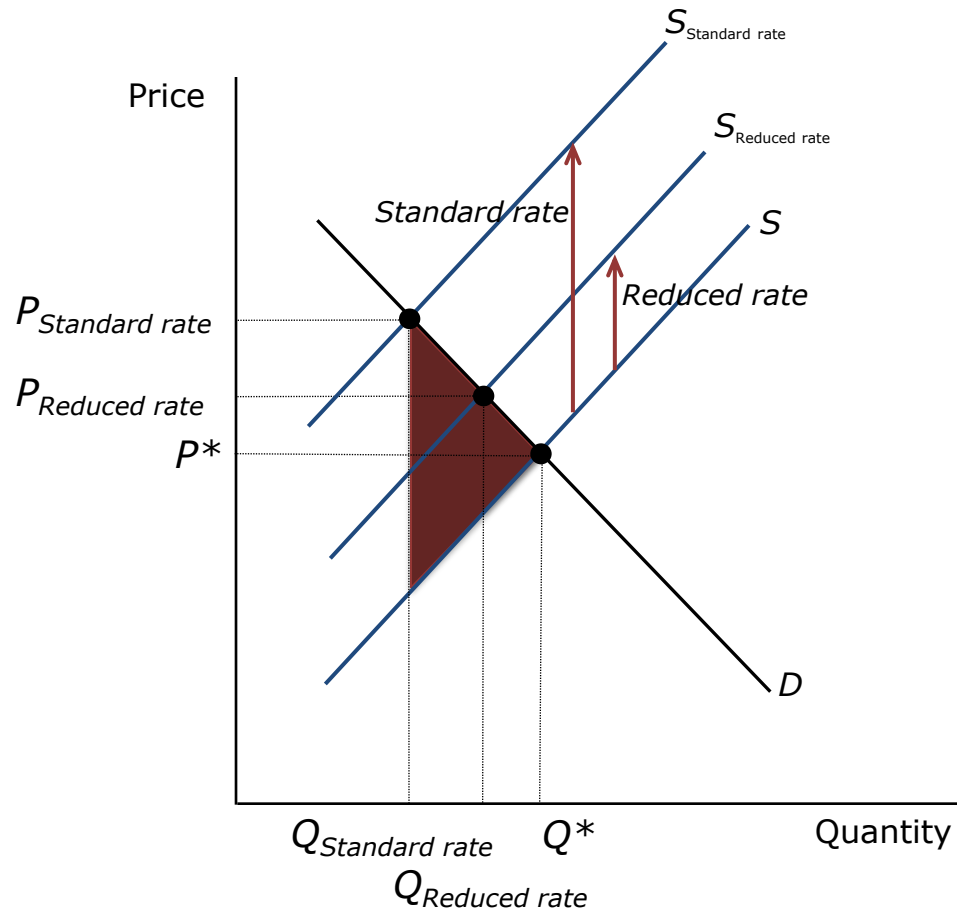


# The theory - Effects of a sales tax





# The theory - Effects of a sales tax



Tax  $\downarrow$  =  $P \downarrow$  ,  $Q \uparrow$

Tax  $\downarrow$  = DW Loss  $\downarrow$

# Data sources

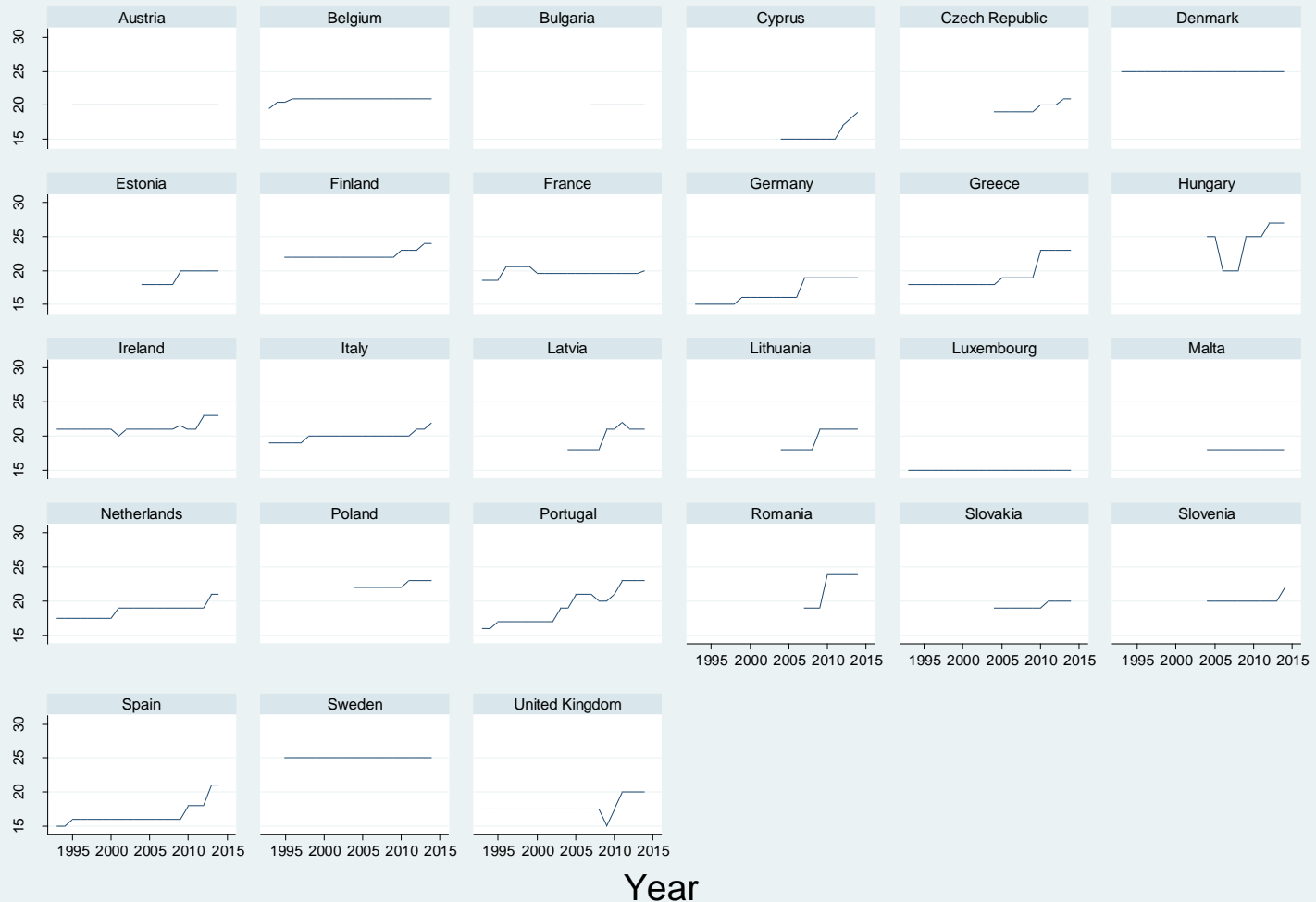
- **Fiscal data** comes from EC publications on VAT Rates Applied in the Member States of the European Union 1993-2014.
- Data on **household expenditure** on cultural goods and services are taken from the Household Budget Survey (wave 2005).
  - HBS data are collected according to the COICOP classification adapted to HBS needs (COICOP-HBS).
- **Price data** comes from the Council of Europe/ERICarts Compendium of Cultural Policies and Trends 2003-2013.
  - It covers cultural industries consumer price (e.g., price of books) and public arts services prices (e.g., price of art museum tickets).
- Data on **population size, GDP per capita** and **educational attainment** obtained from Eurostat and covers 1993-2013.
- Data on political orientation (wrt economic policy) taken from World Bank (2012).
- Data on **internet use** comes from Eurostat, Special module of ICT survey 2008: Individuals — Use of advanced services.



# Outline of empirical analysis

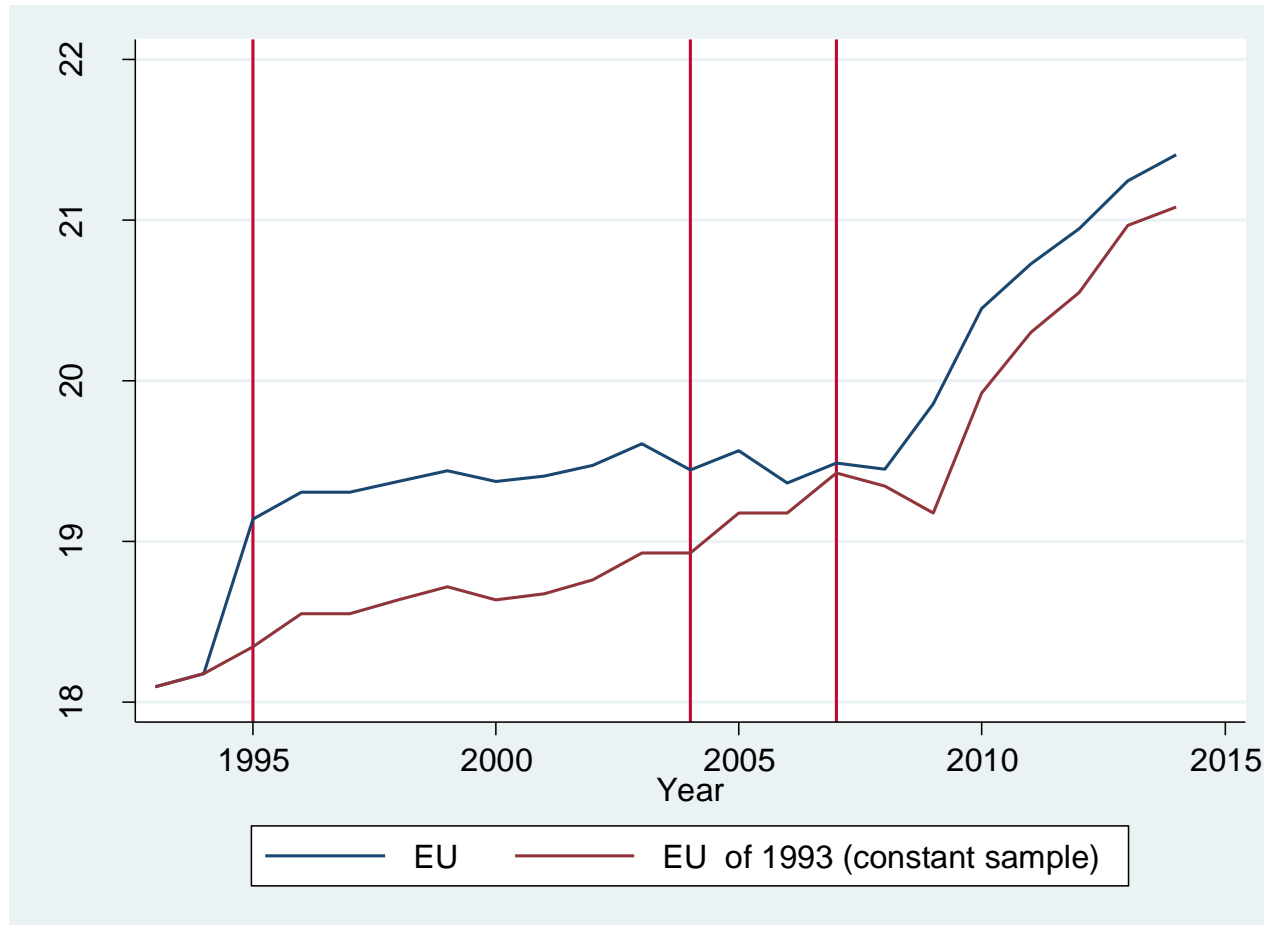
- Fiscal rates in EU over time and the correlates
- Fiscal rates and prices
- Fiscal rates and cultural expenditure

# Standard VAT rates, by country

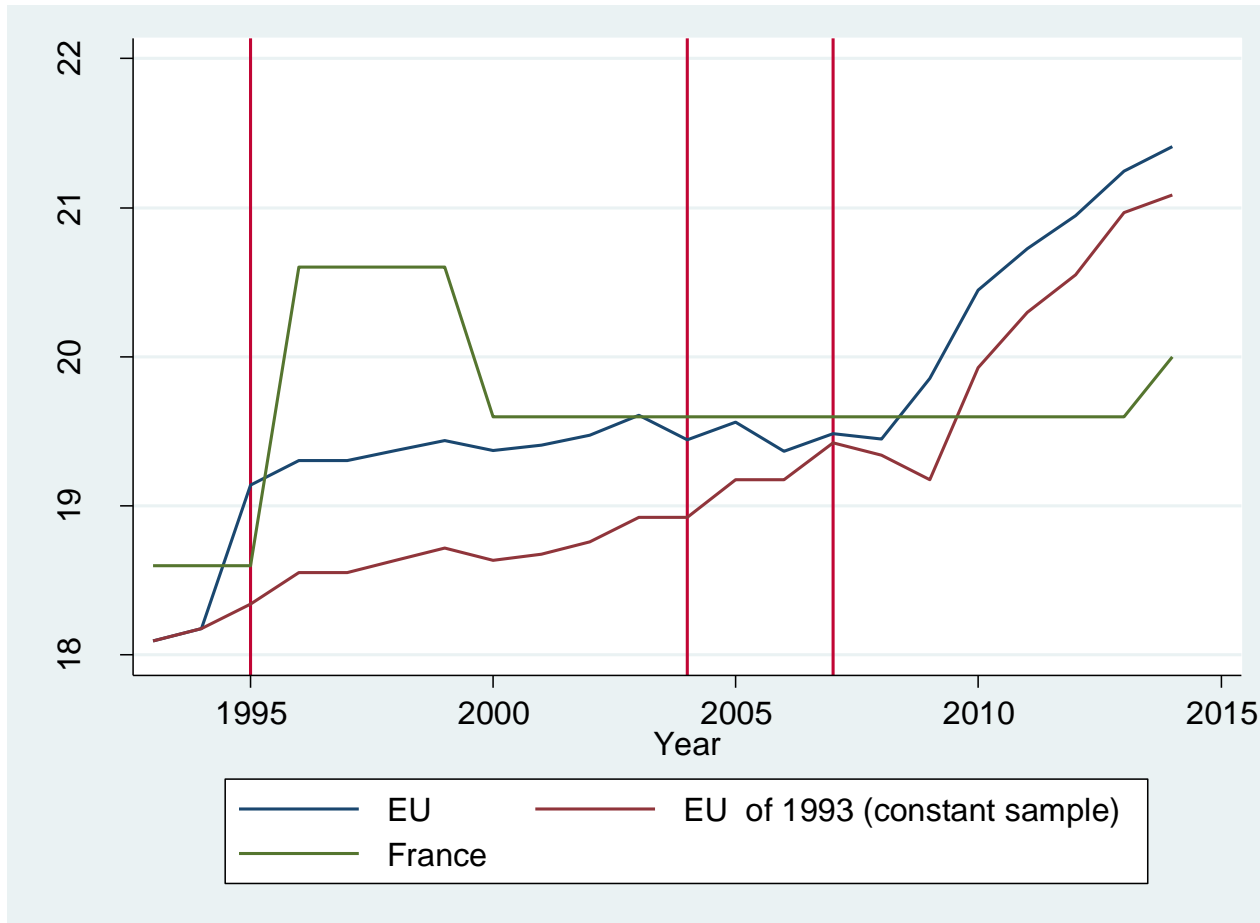


Graphs by country

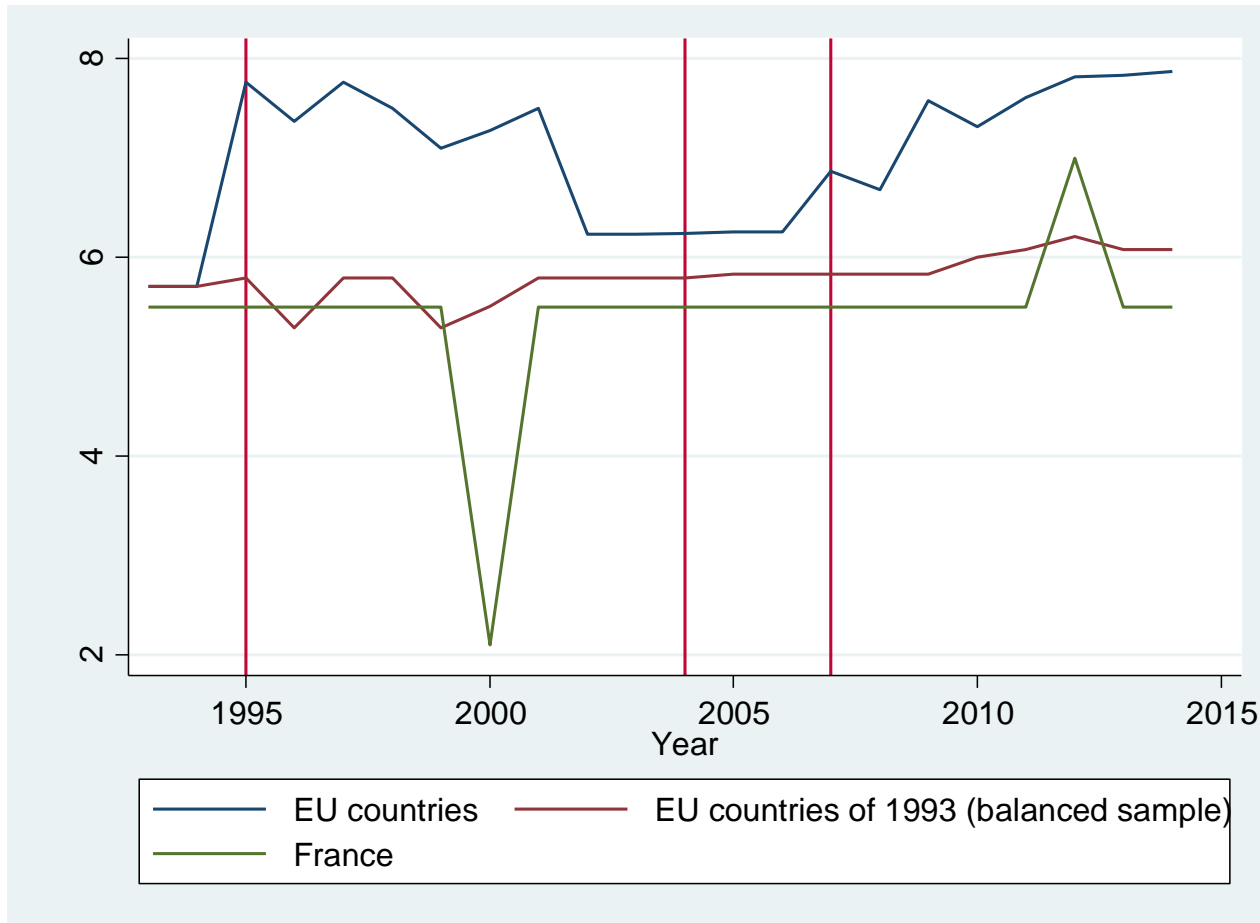
# Standard VAT rate, average



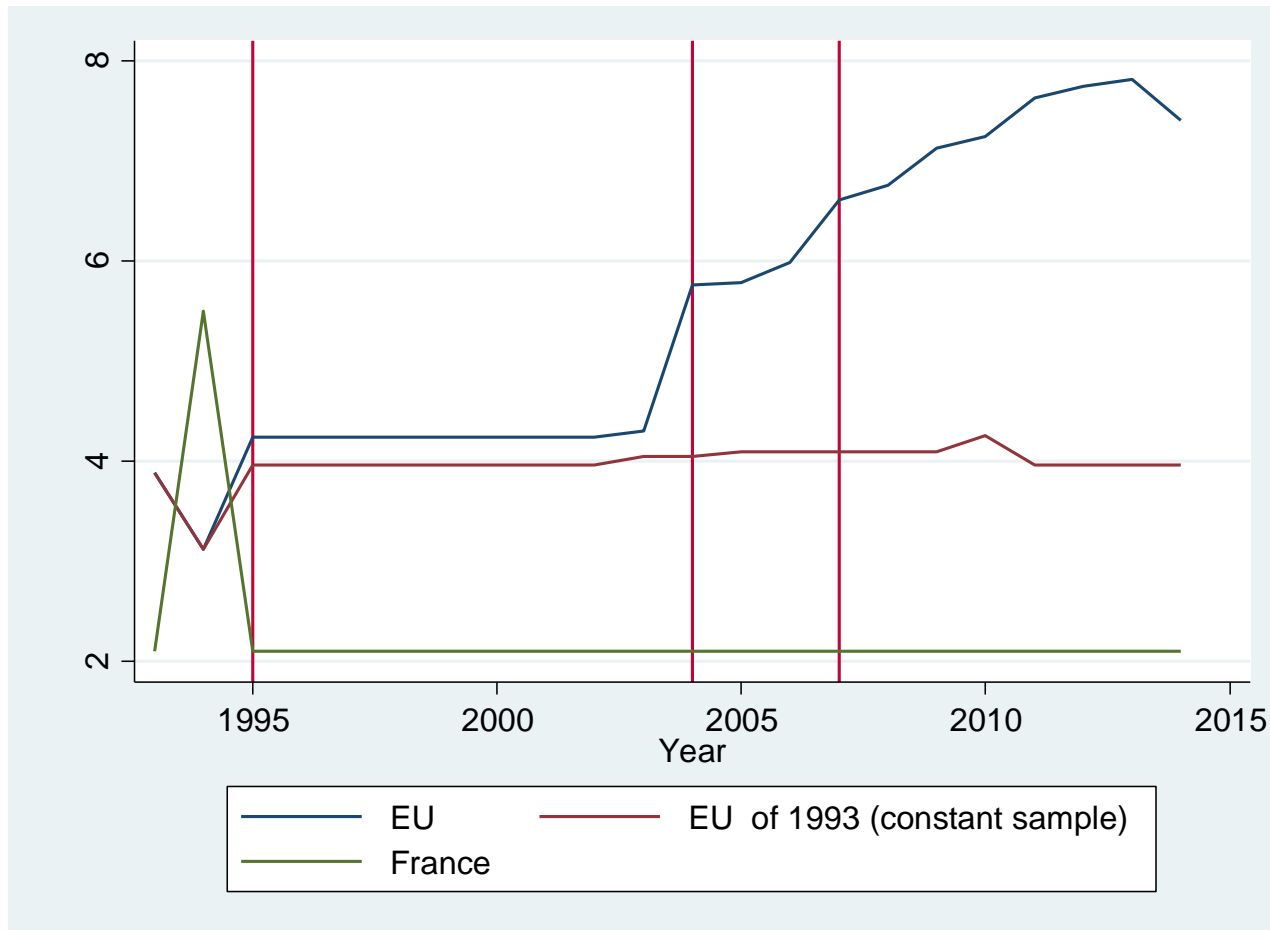
# Standard VAT rate, average



# Reduced rate books



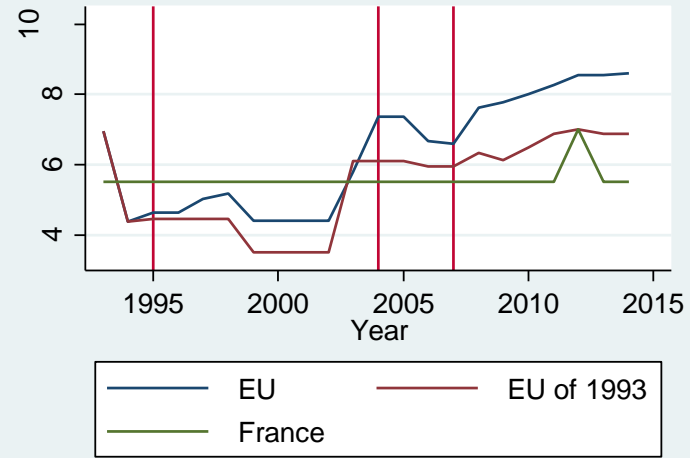
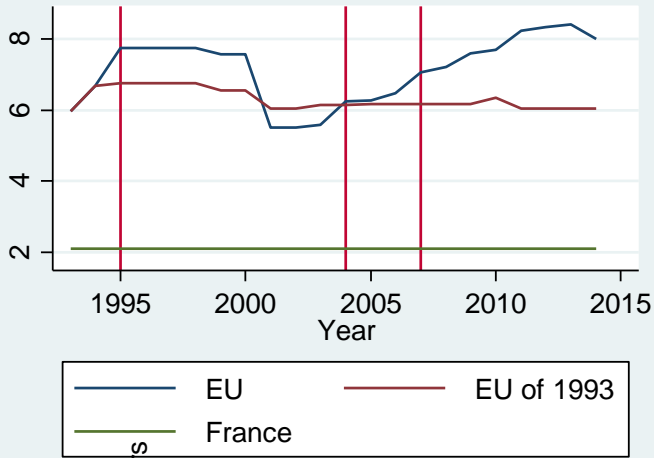
# Reduced rate newspapers



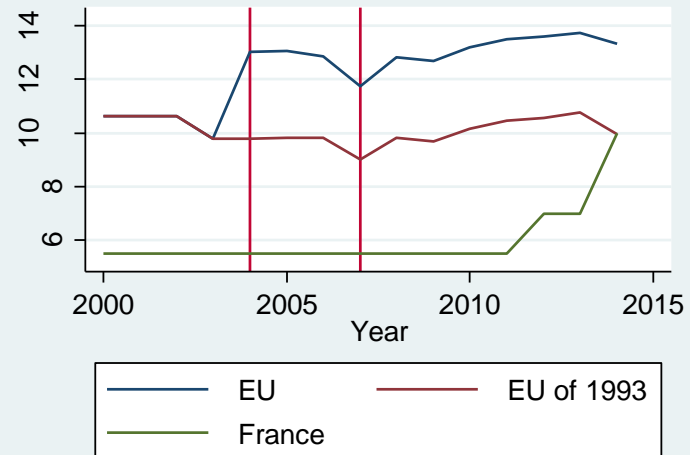
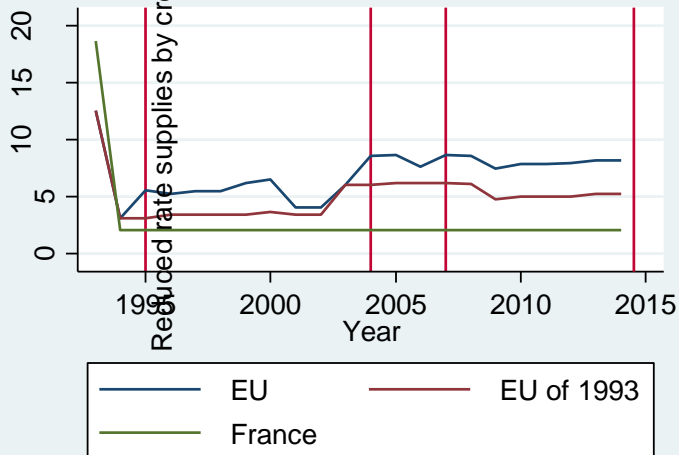


# Reduced rate periodicals, admission to cultural services, TV license, supplies by creators

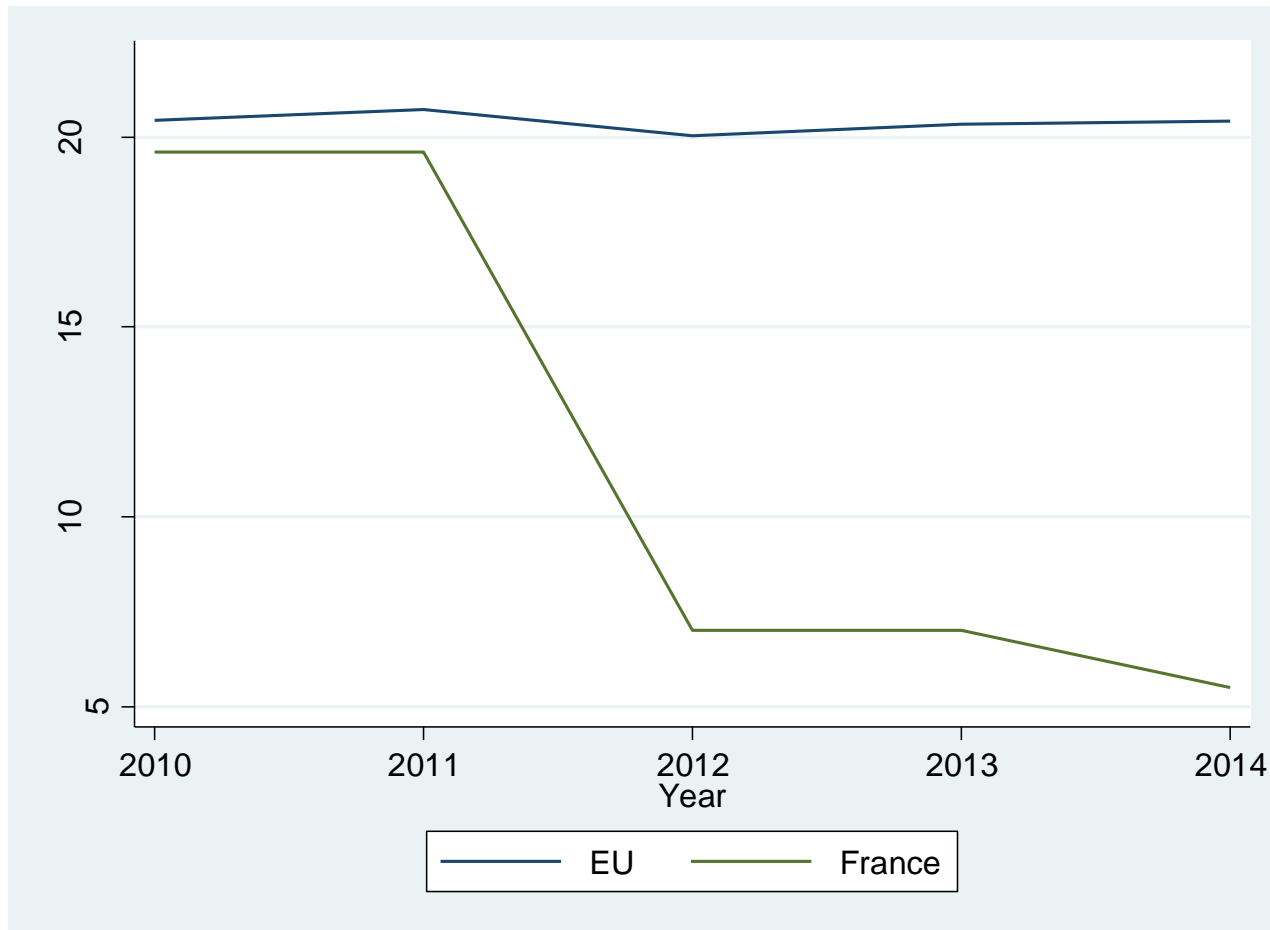
Reduced rate admission to cultural services



Reduced rate supplies by creators



# Reduced rate E-books



# Correlates of tax rates (EU, 1993-2013)

	(1) VAT standard rate	(2) Reduced rate Books	(3) Reduced rate Newspapers	(4) Reduced rate Periodicals	(5) Reduced rate Admission to cultural services	(6) Reduced rate TV license	(7) Reduced rate Supplies by creators
log(population)	-7.690*** (2.411)	-3.782 (7.054)	-4.987 (3.912)	-7.806 (9.083)	-8.858 (11.18)	38.13*** (13.51)	15.11 (9.575)
GDP per capita	-0.0490*** (0.0170)	-0.0316 (0.0497)	0.0297 (0.0275)	-0.0194 (0.0640)	0.125 (0.0787)	-0.101 (0.0913)	-0.123 (0.0746)
Share of mid or high educational attainment (15-64 ages)	0.0393** (0.0162)	0.136*** (0.0473)	0.0166 (0.0262)	0.111* (0.0609)	-0.291*** (0.0752)	-0.130 (0.0849)	-0.213*** (0.0779)
Left - party orientation	-0.0983 (0.121)	0.359 (0.354)	0.259 (0.196)	0.602 (0.455)	-1.200** (0.564)	0.117 (0.653)	1.039** (0.447)
Year FE	yes	yes	yes	yes	yes	yes	yes
Country FE	yes	yes	yes	yes	yes	yes	yes
Observations	346	346	346	346	343	307	251
R-squared	0.924	0.860	0.912	0.817	0.728	0.792	0.856
Number of years	20	20	20	20	20	20	13

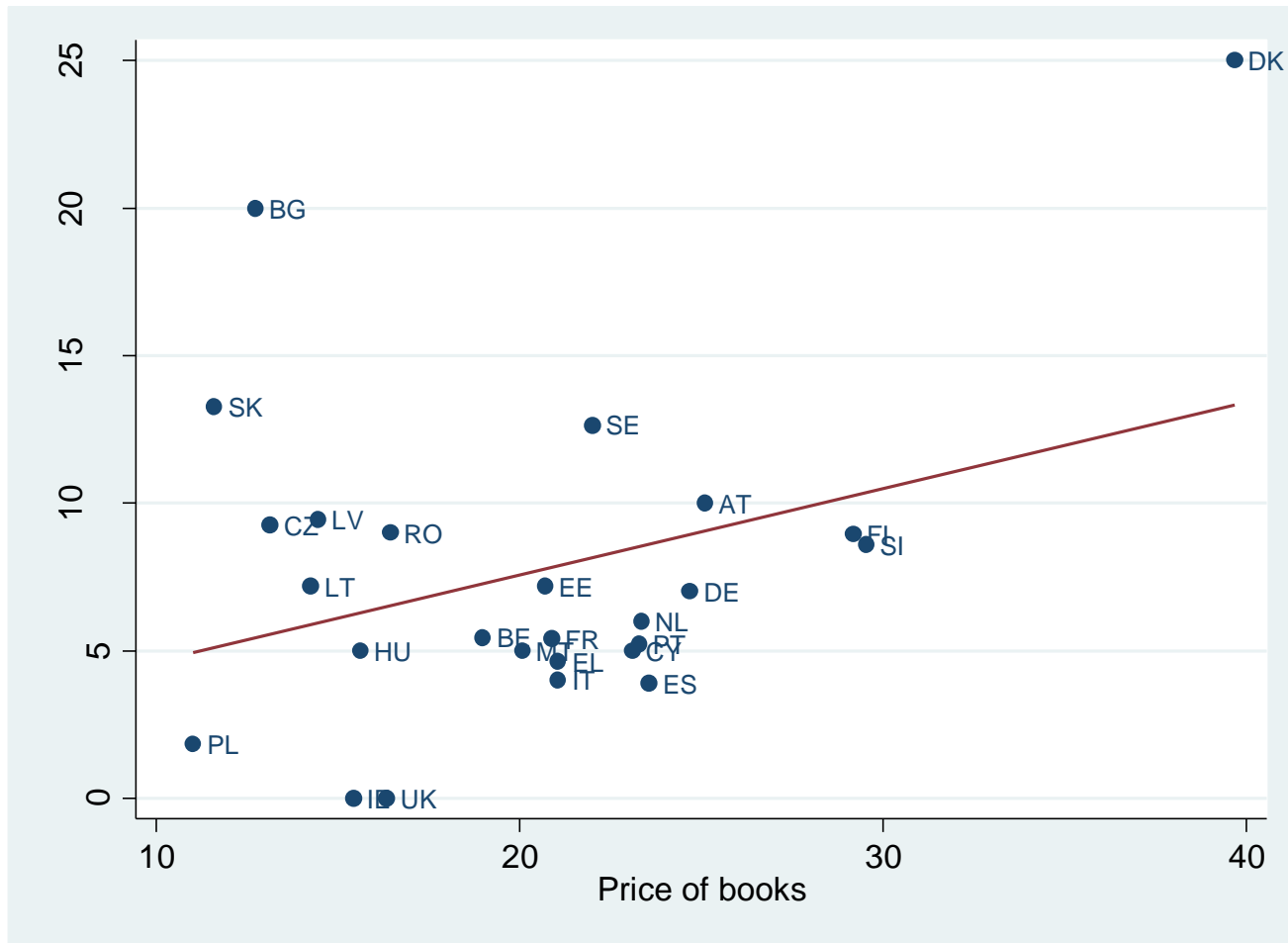
Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

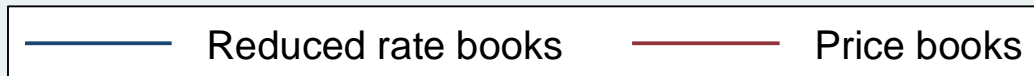
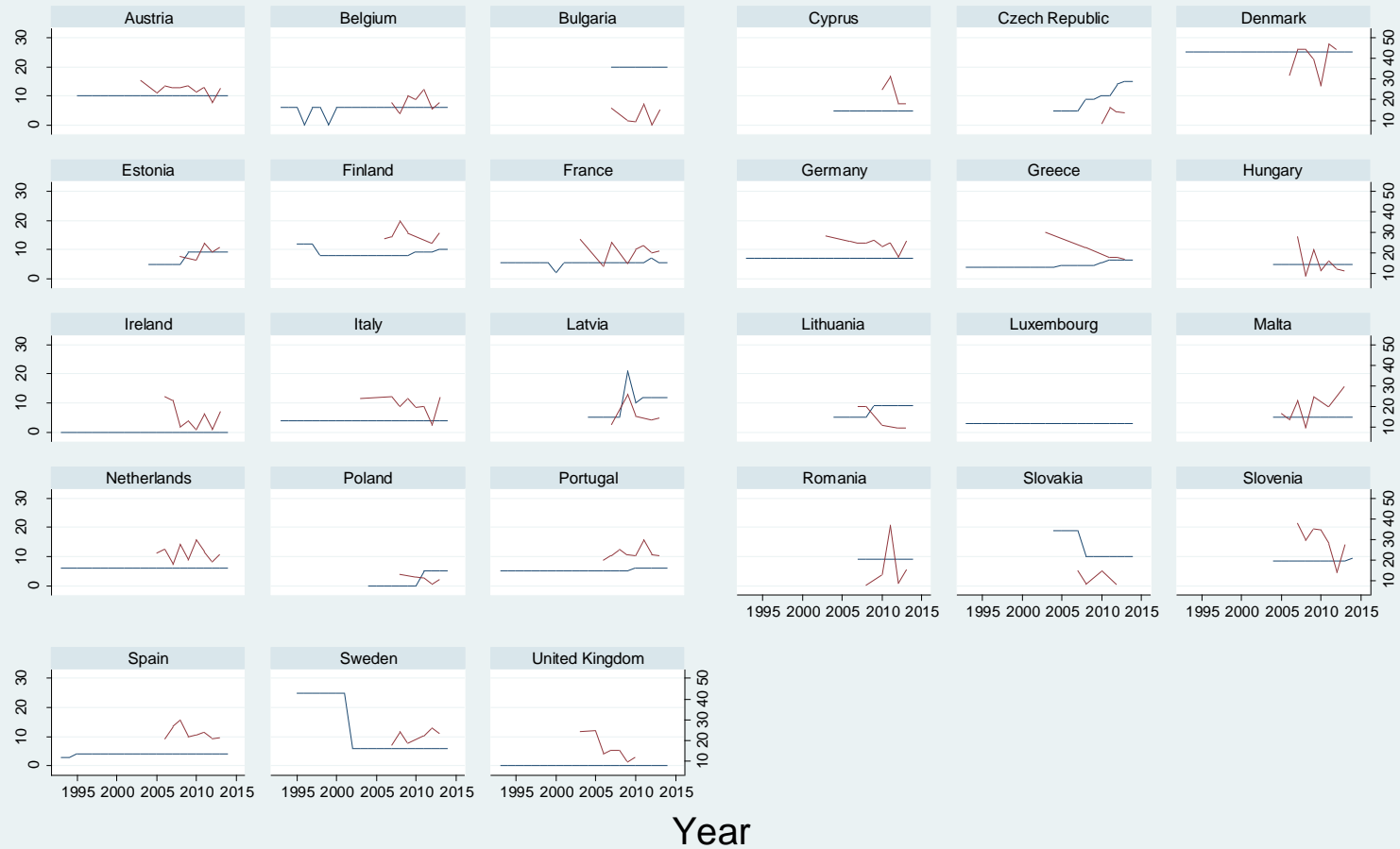
# Outline of empirical analysis

- Fiscal rates in EU over time and the correlates
- Fiscal rates and prices
- Fiscal rates and cultural expenditure

# Reduced rate and price of books



# Reduced rates and book prices, by country



Graphs by country

# Prices and reduced tax rates (EU, 2003-2013)

	(1)	(2)	(3)	(4)
	Book price	Museum price	Opera price	Cinema price
Reduced rate books	0.504* (0.260)			
Reduced rate admission to cultural services		0.0685* (0.0380)	0.570** (0.242)	-0.0187 (0.0303)
log(population)	1.026 (1.285)	0.290 (1.442)	155.4*** (48.56)	13.02** (4.134)
GDP per capita	0.643*** (0.160)	0.597*** (0.166)	2.875*** (0.611)	0.341** (0.107)
Share of mid or high educational attainment (15-64 ages)	-0.455*** (0.101)	0.164 (0.202)	-0.391 (0.467)	0.0561 (0.0716)
Year FE	yes	yes	yes	yes
Country FE	yes	yes	yes	yes
Observations	169	172	178	180
R-squared	0.692	0.735	0.858	0.760
Number of year	10	10	10	10

Standard errors in parentheses

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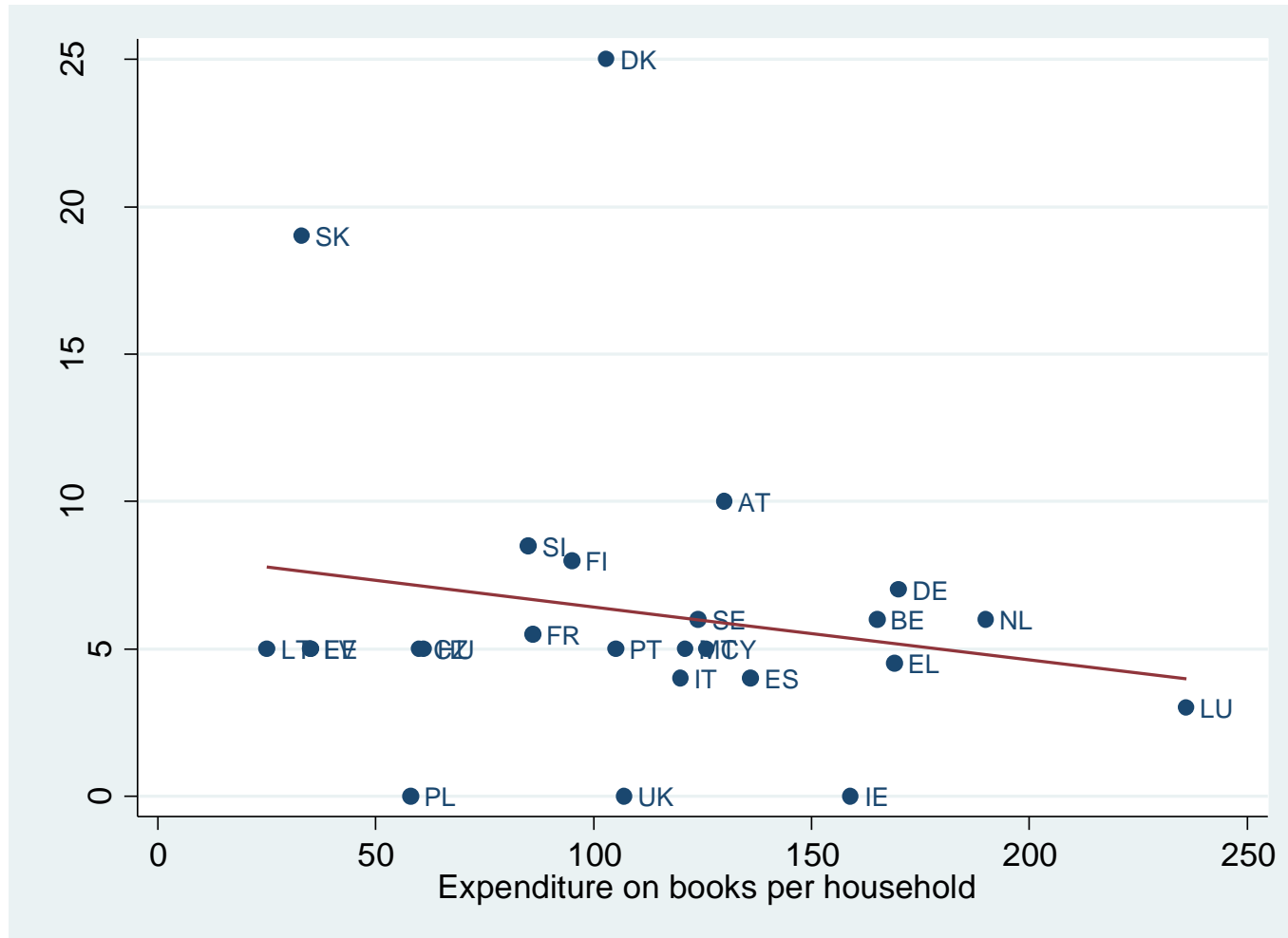


# Outline of empirical analysis

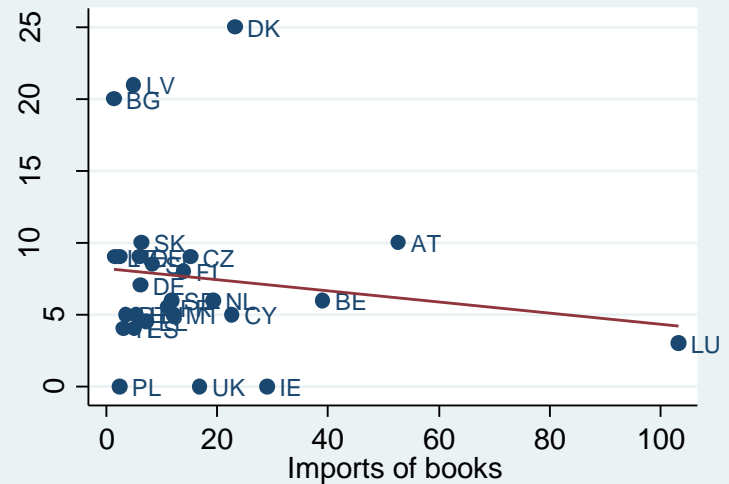
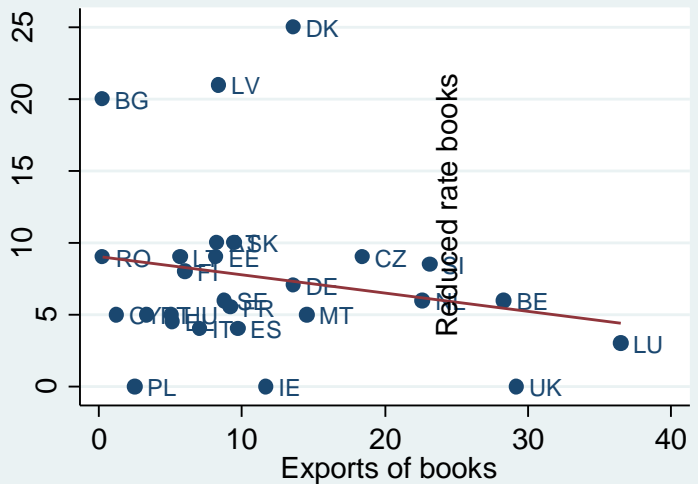
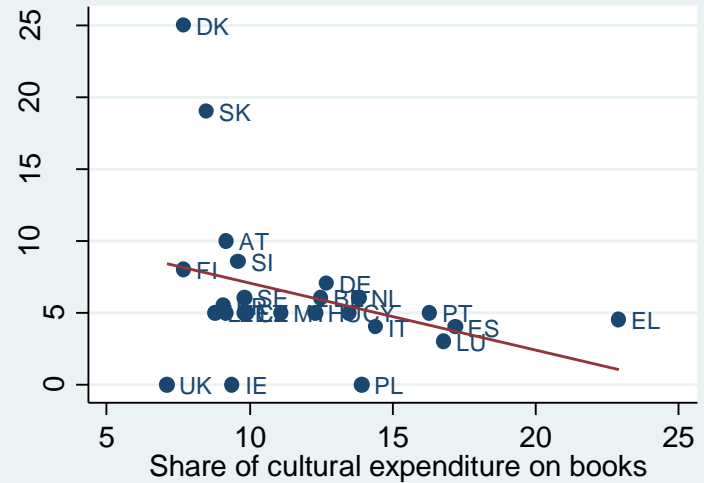
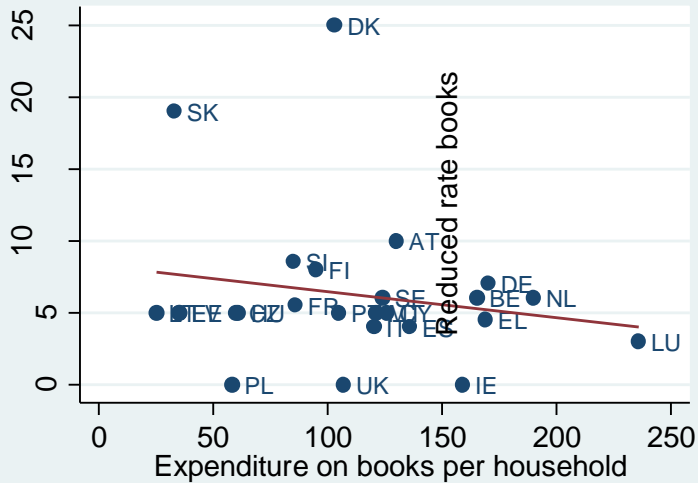
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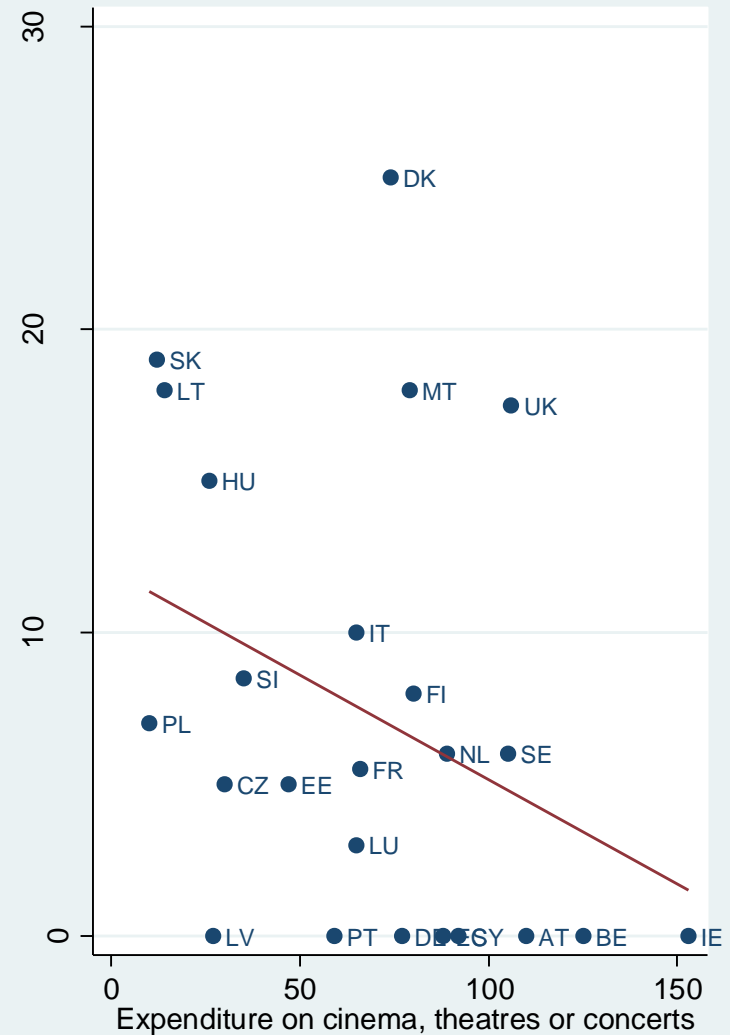
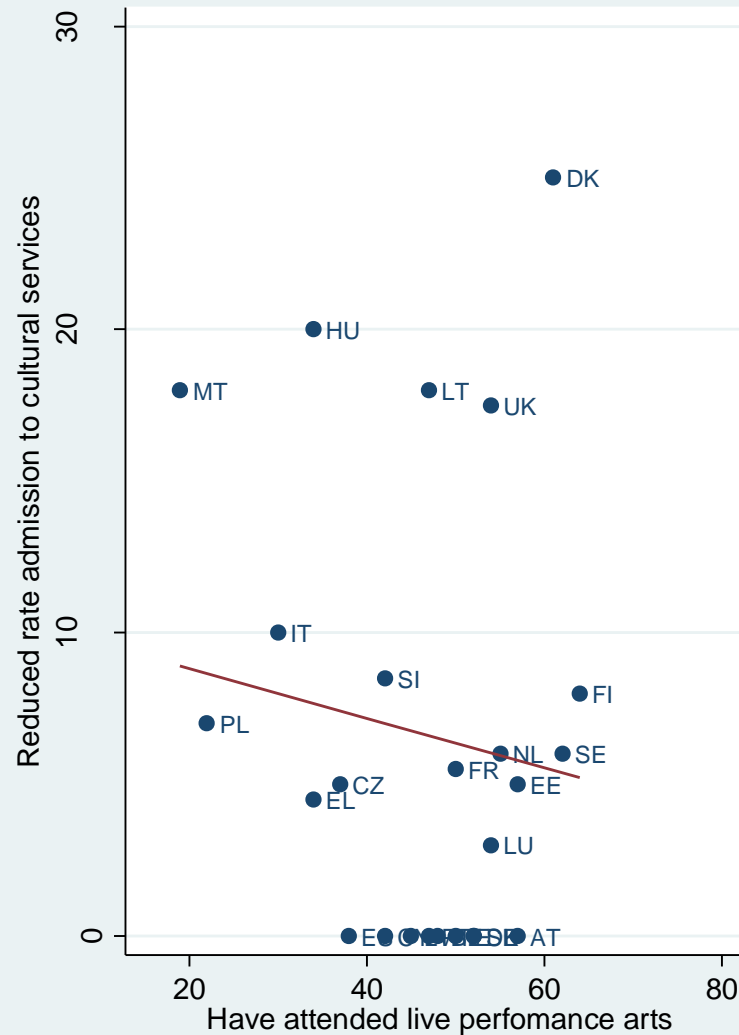
# Expenditure on books



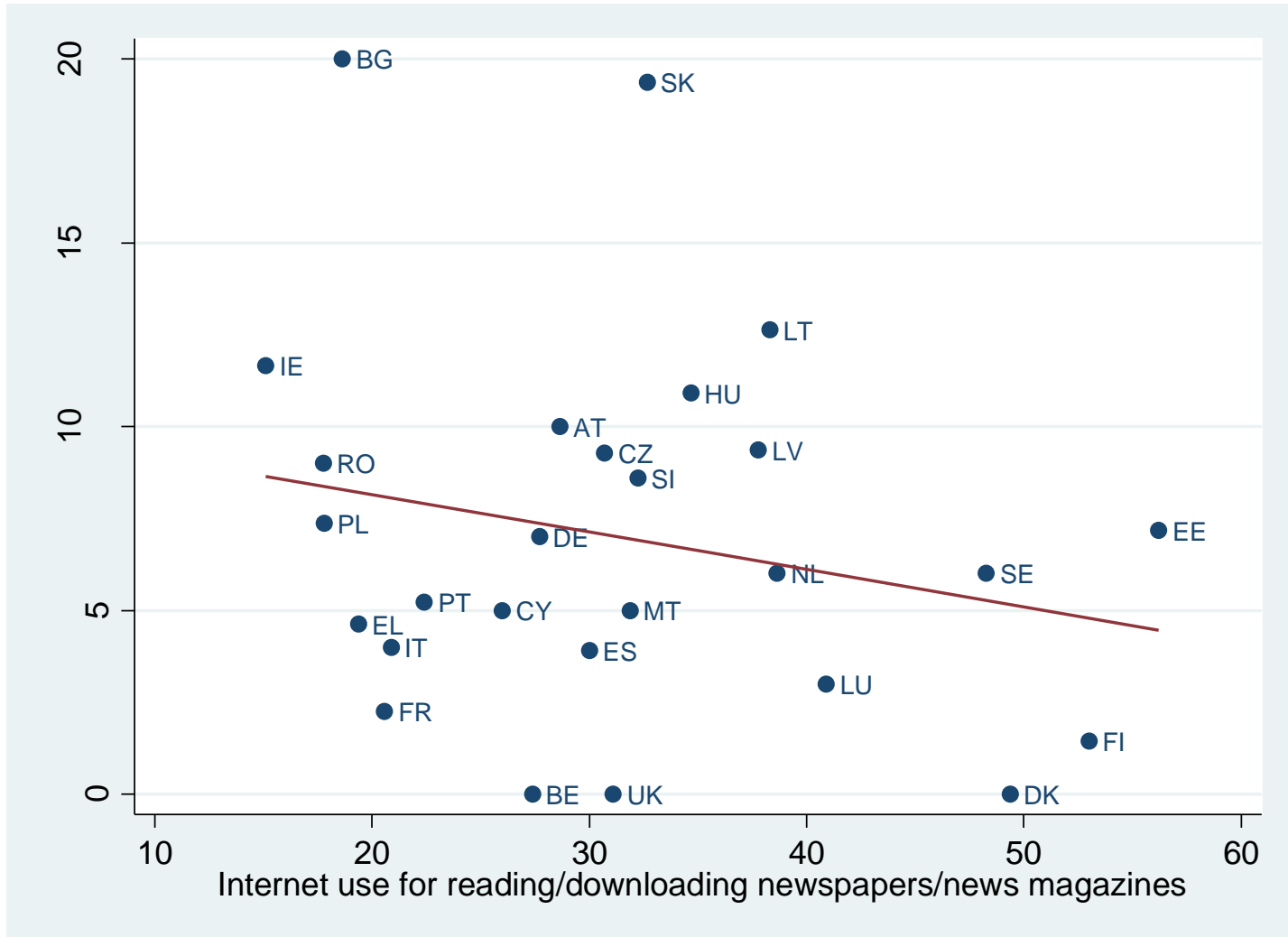
# Expenditure and trade of books



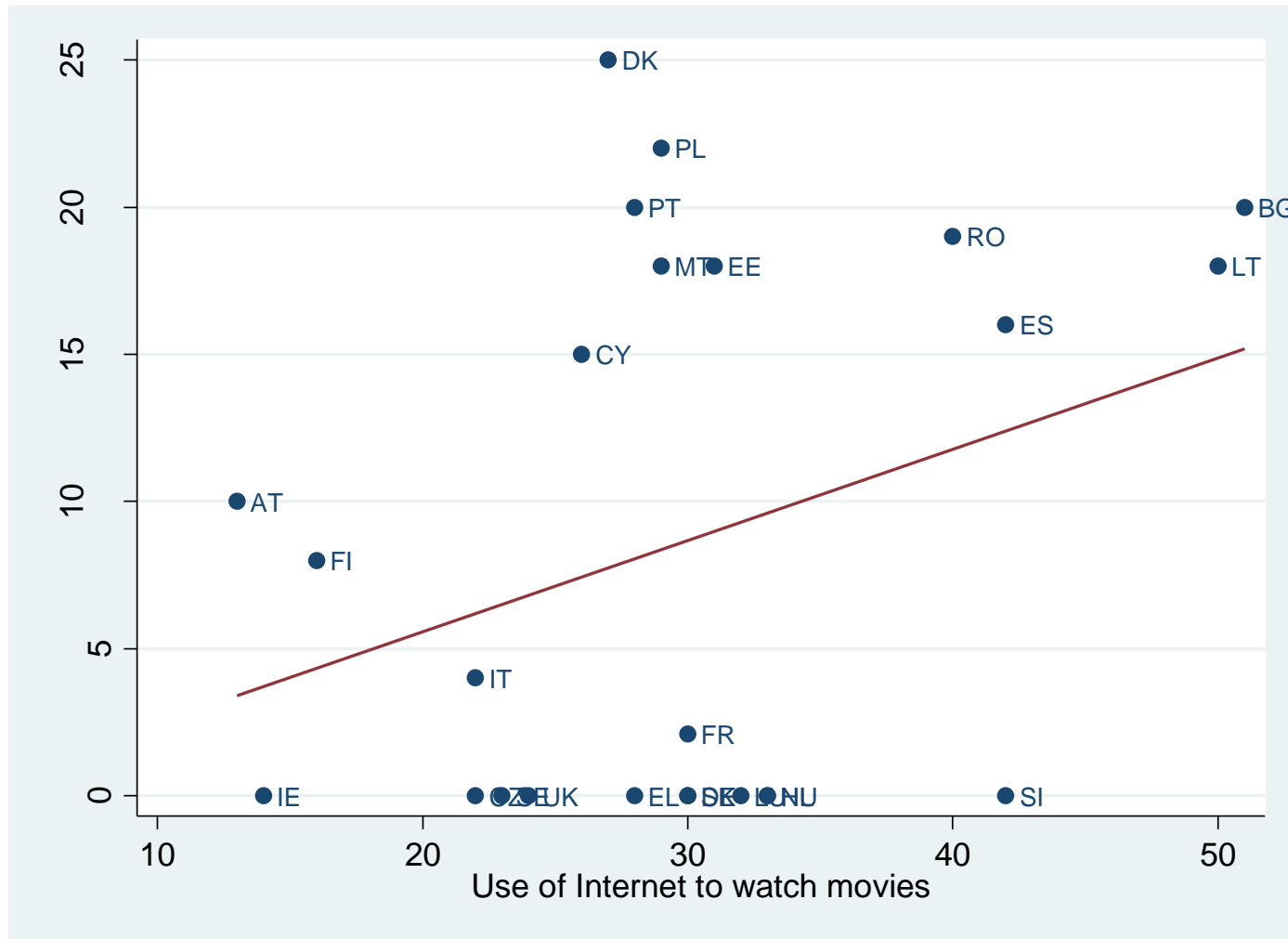
# Reduced rate admission to cultural services



# Use of internet to access news, averages 2002-2012



# Use of Internet for leisure activities related to obtaining and sharing audiovisual content, 2008 (% of Internet users)



# What about causality?

- Correlation does not imply causality!
  - The association could be reverse: countries with high cultural consumption decide on lower tax rates.
  - Fiscal rates could be endogeneous and depend on some other variable (e.g., country-specific preferences for culture).
  - Furthermore, our analysis is subject to omitted variable biases.
- Try to use instrumental variable to shed light on causality.

# IV-identification: A proposal

- Use standard VAT rate as an instrument for reduced rates for books.
- Policy makers do not consider book consumption when deciding on VAT rates.
- And yet, reduced rates for books are arguably related to the standard VAT rate.
  - The reduced rates are likely in proportion to the standard rate.

# The causal impact of reduced rates on book expenditure

VARIABLES	(1) Expenditure books OLS	(2) Reduced rate books First-stage	(3) Expenditure books IV
Standard VAT rate		0.467*** (0.145)	
Reduced rate books	-2.179* (1.262)		-2.778** (1.303)
log(population)	-0.390 (4.508)	-4.218 (5.398)	-0.839 (4.379)
GDP per capita	3.518*** (0.568)	0.00246 (0.0446)	3.442*** (0.549)
Share of mid or high educational attainment (15- 64 ages)	-0.716 (0.485)	0.127*** (0.0441)	-0.644 (0.468)
Observations	25	409	25
R-squared	0.693	0.856	0.712
Number of years		21	

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



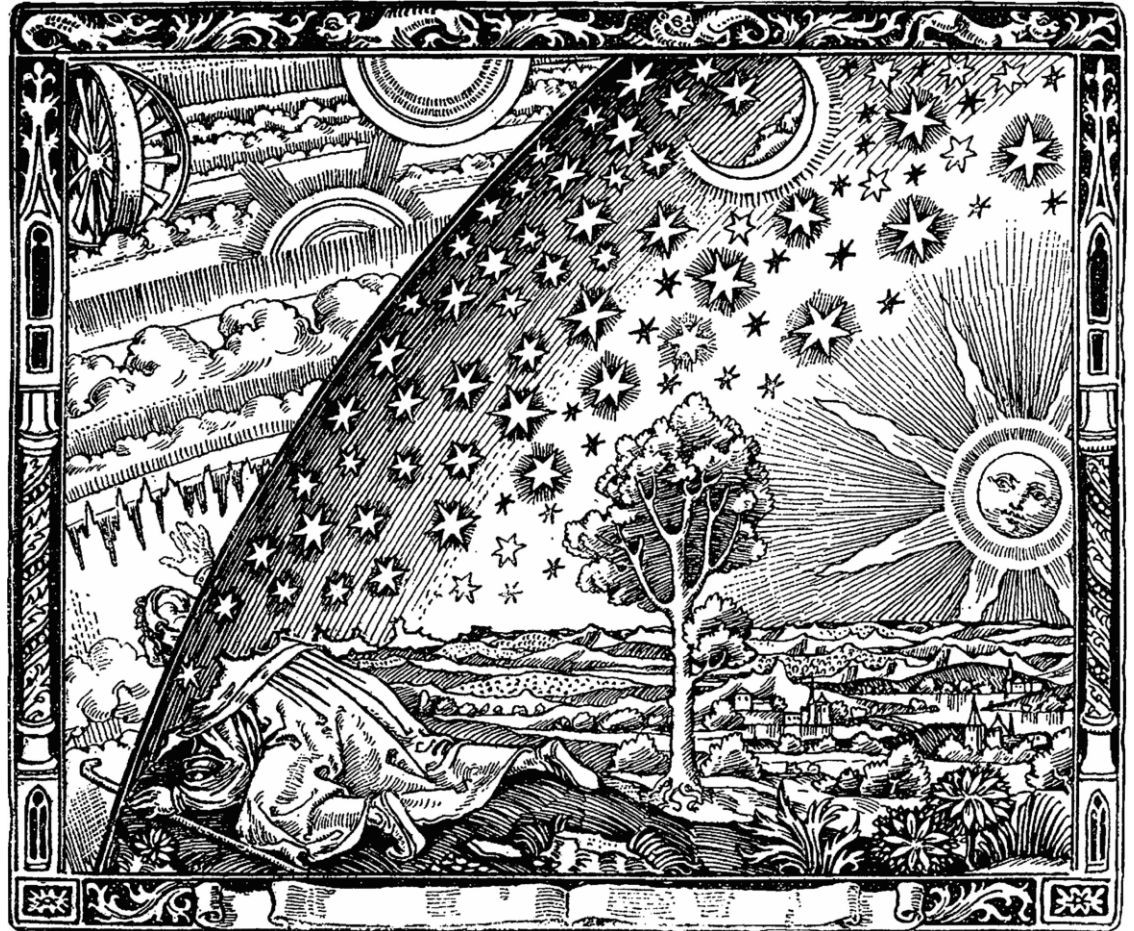
# Conclusions

- We study whether (and how) fiscal policy can stimulate consumption of Europe's cultural heritage in the Age of Digitalisation. So far by:
  - Documenting fiscal rates on cultural goods and services in EU over time.
  - Shedding some light on the correlates of tax rates.
  - Attempting to study the effects of fiscal incentives.
    - The impact of fiscal rates on prices and expenditure.

# Future work

- Study the impact on **production** of cultural goods and services (e.g., the role of reduced rates for creators).
- Look at **other forms of subsidy**, as those affect the overall picture as well (e.g., significant funding of the film industry in Denmark).
- Complement this aggregate analysis with **specific case-studies** to understand the mechanisms behind the patterns disclosed here.
  - With a particular focus on the changes brought by **digitisation**.

# Thank you!



*A missionary of the Middle Ages tells that he had found  
the point where the sky and the Earth touch...*

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