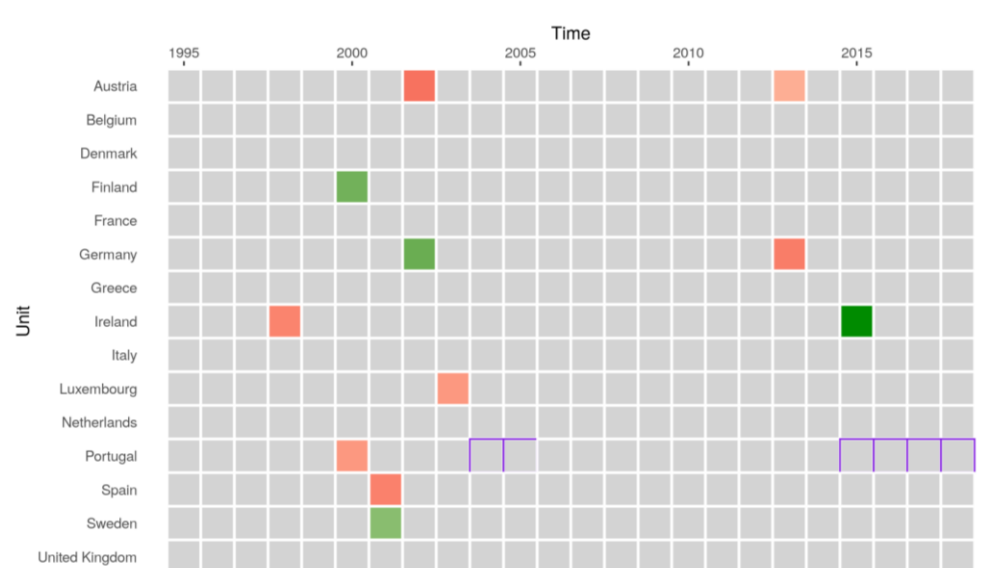


**DV:  $\log(CO2)$**

***without autoregressive lag***



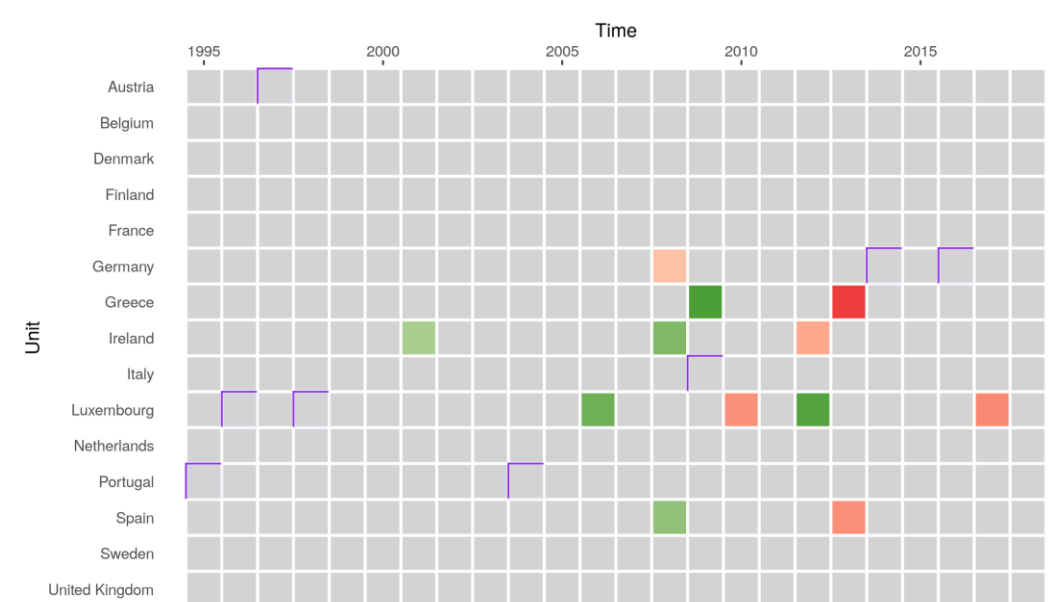
**DV:  $\log(\text{CO}_2 \text{ p.c.})$**

***without autoregressive lag***

[illegible]

**DV: growth rate(CO2 p.c.)**

***without autoregressive lag***

[illegible]

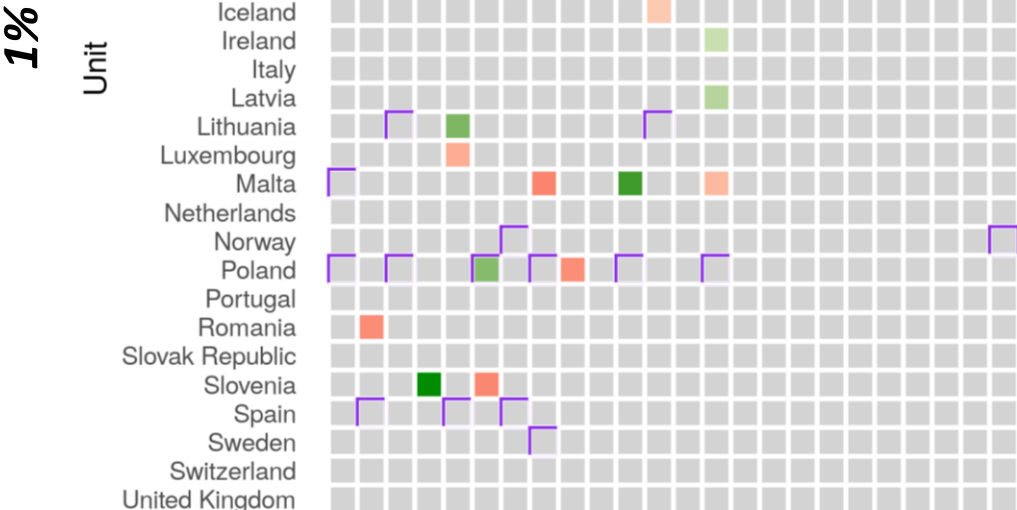
# EU31

DV:  $\log(CO_2)$

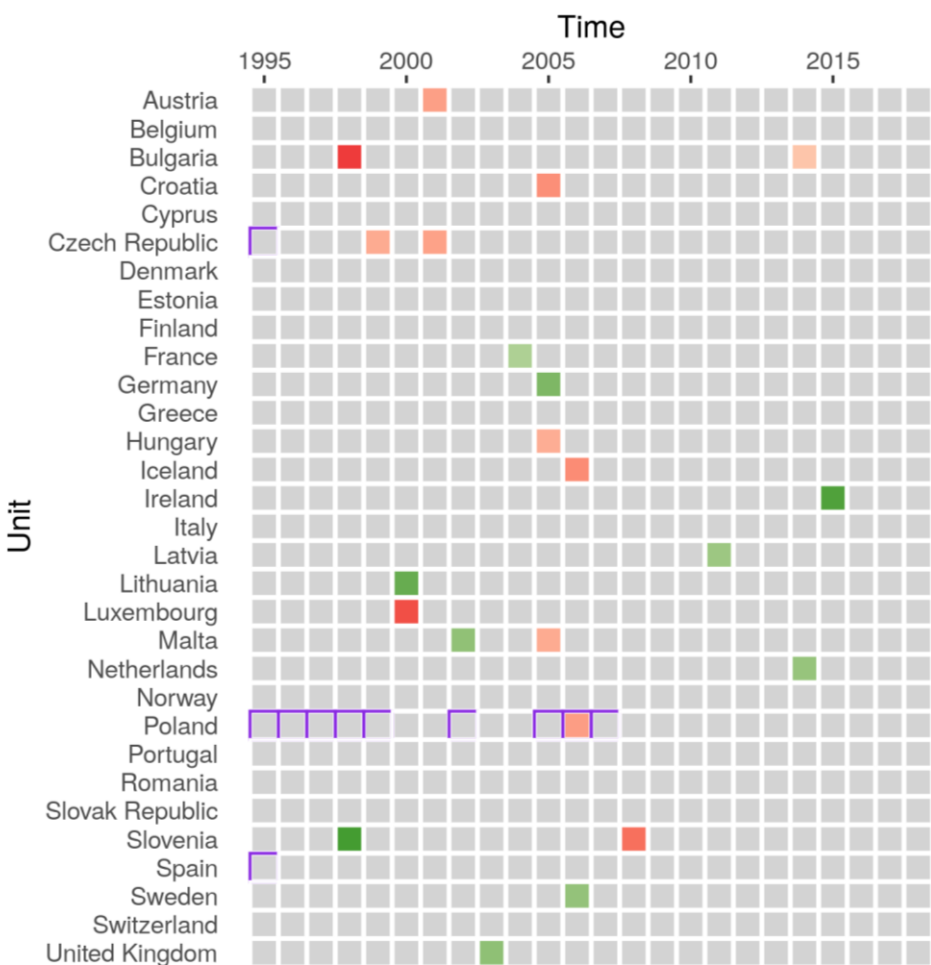
with autoregressive lag

without autoregressive lag

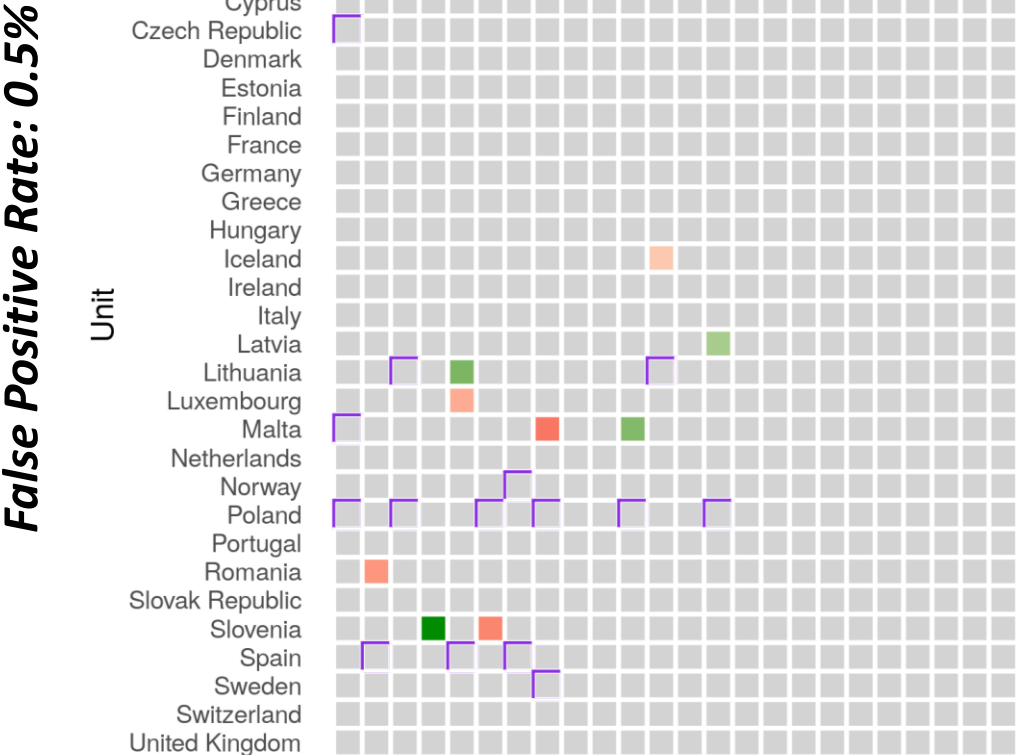
1%



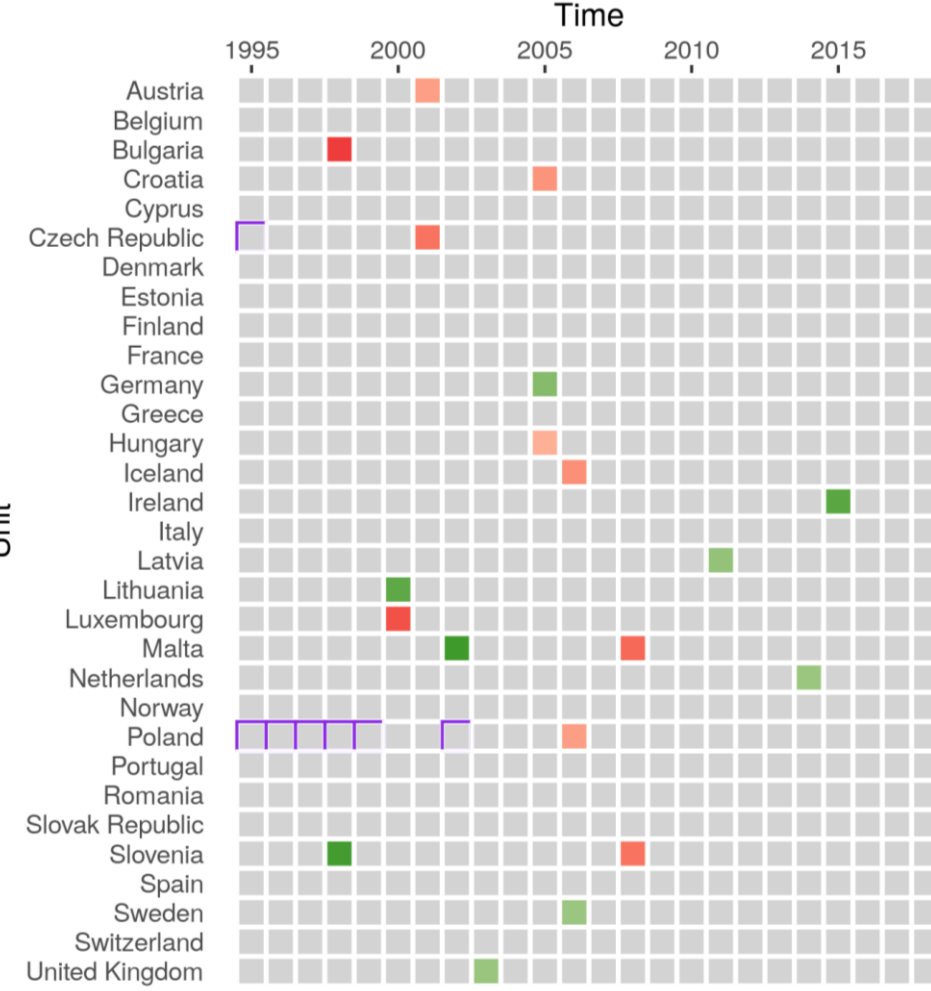
Unit



False Positive Rate: 0.5%



Unit

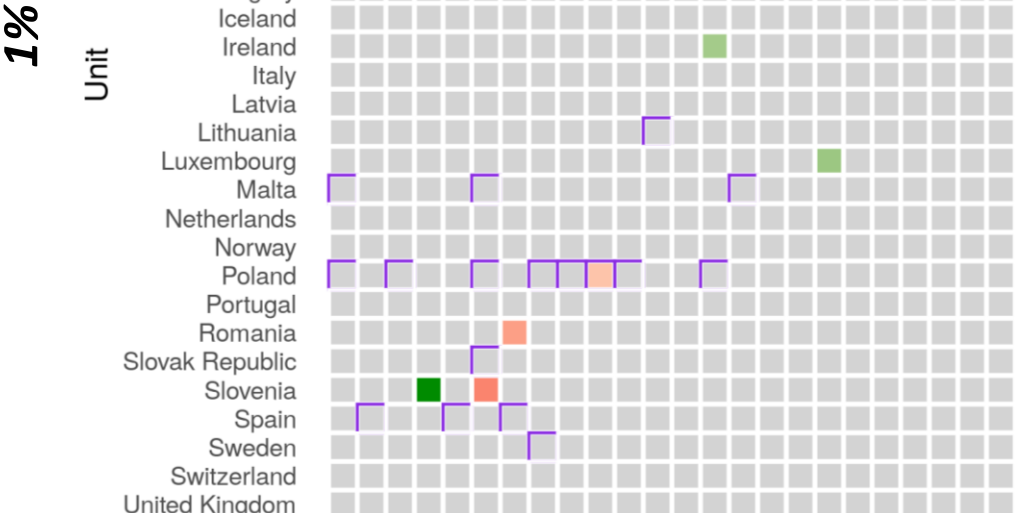


DV:  $\log(CO_2 \text{ p.c.})$

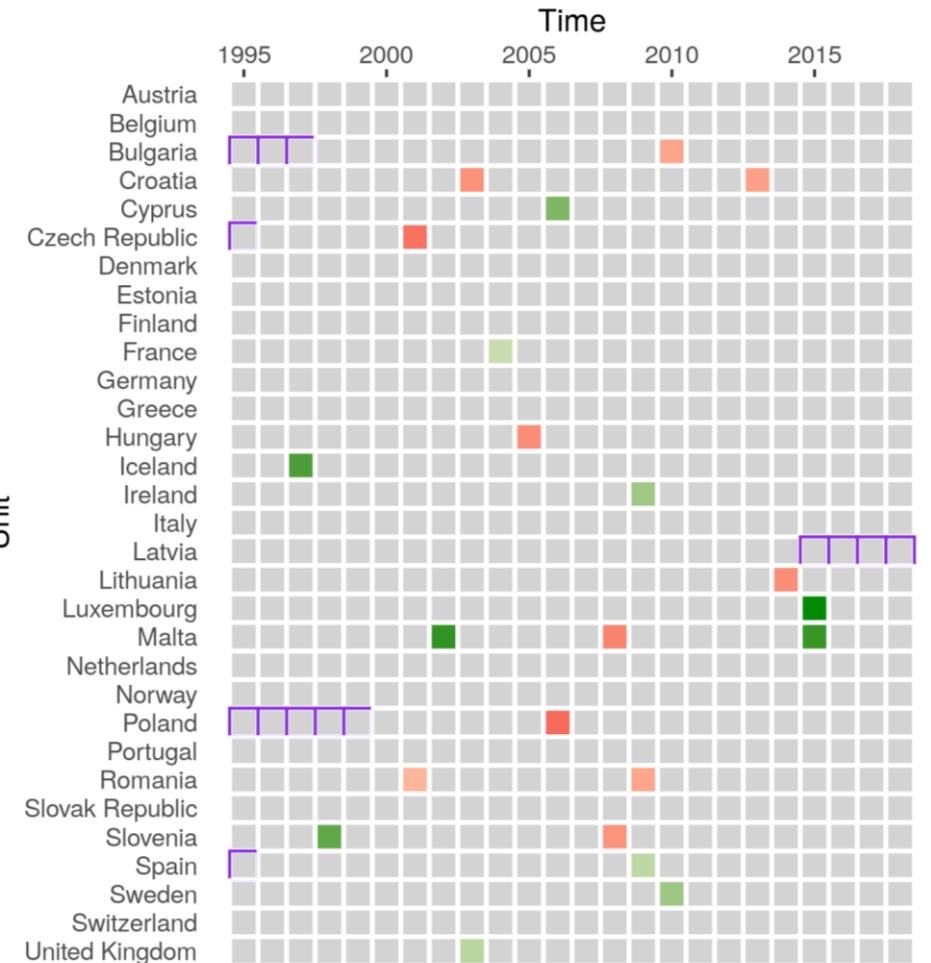
with autoregressive lag

without autoregressive lag

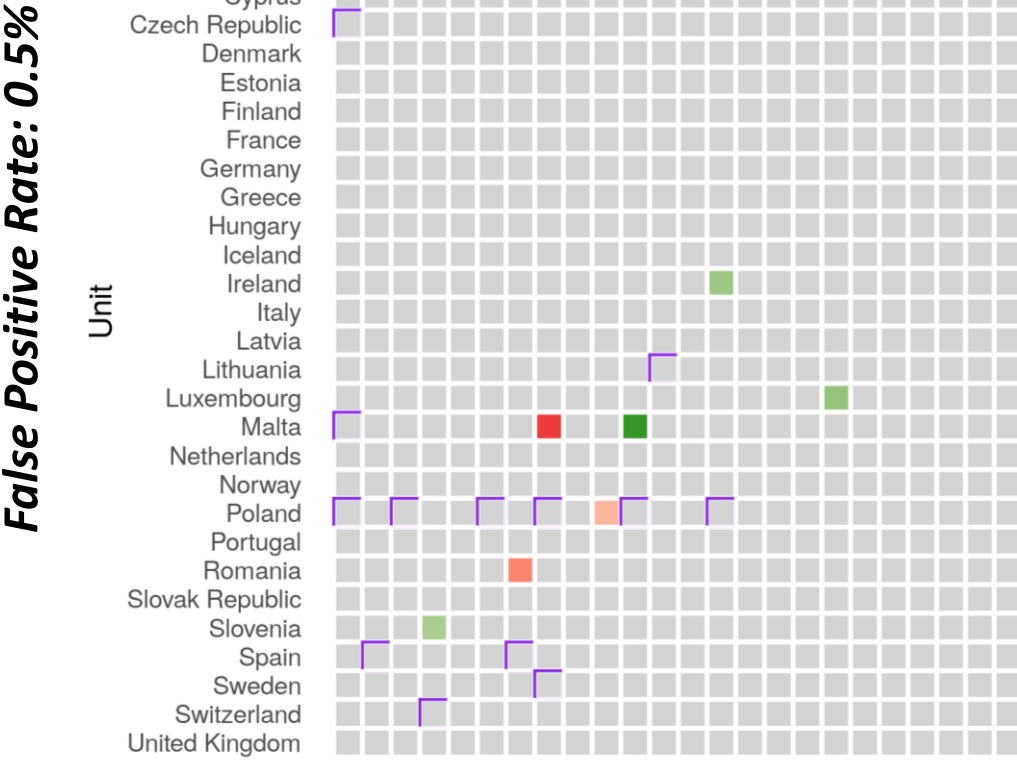
1%



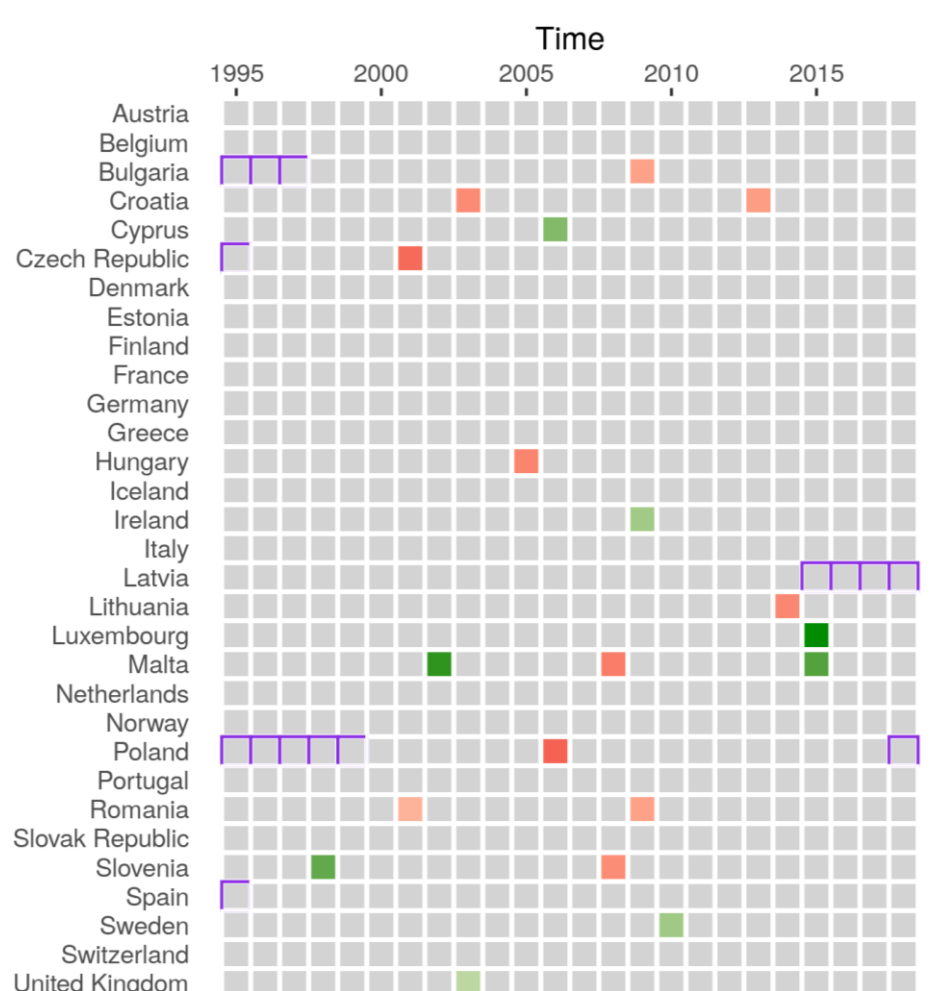
Unit



False Positive Rate: 0.5%



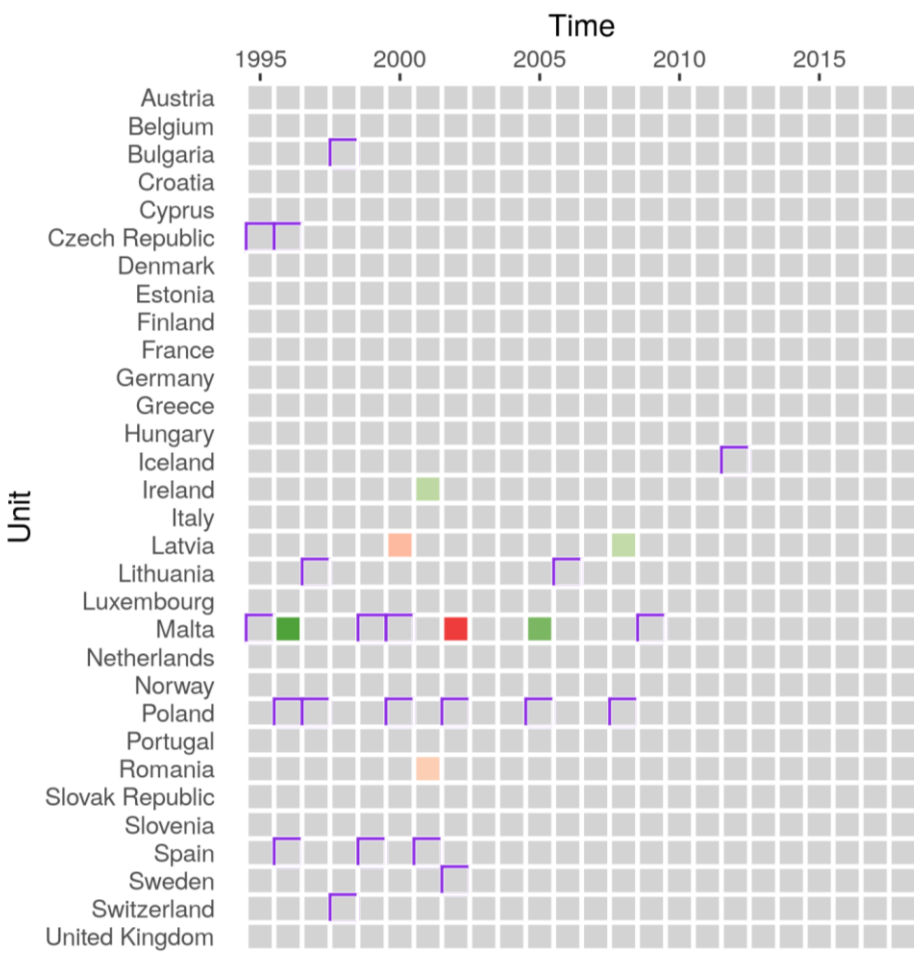
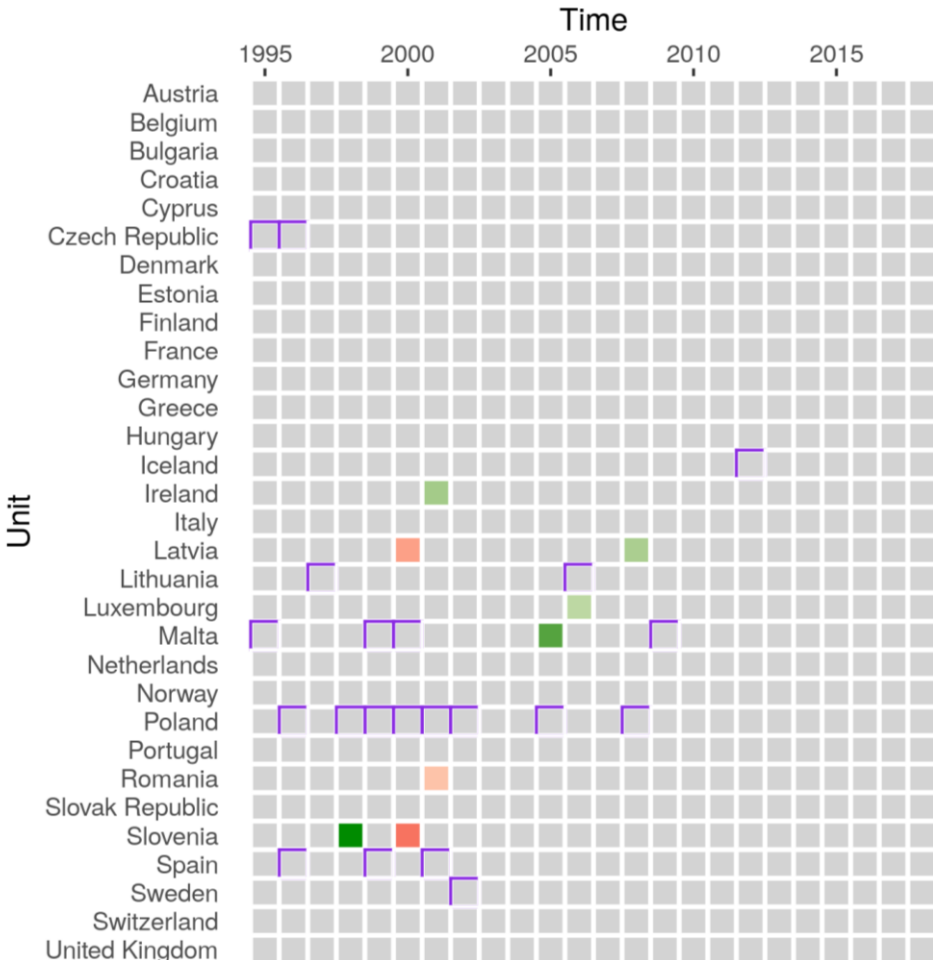
Unit



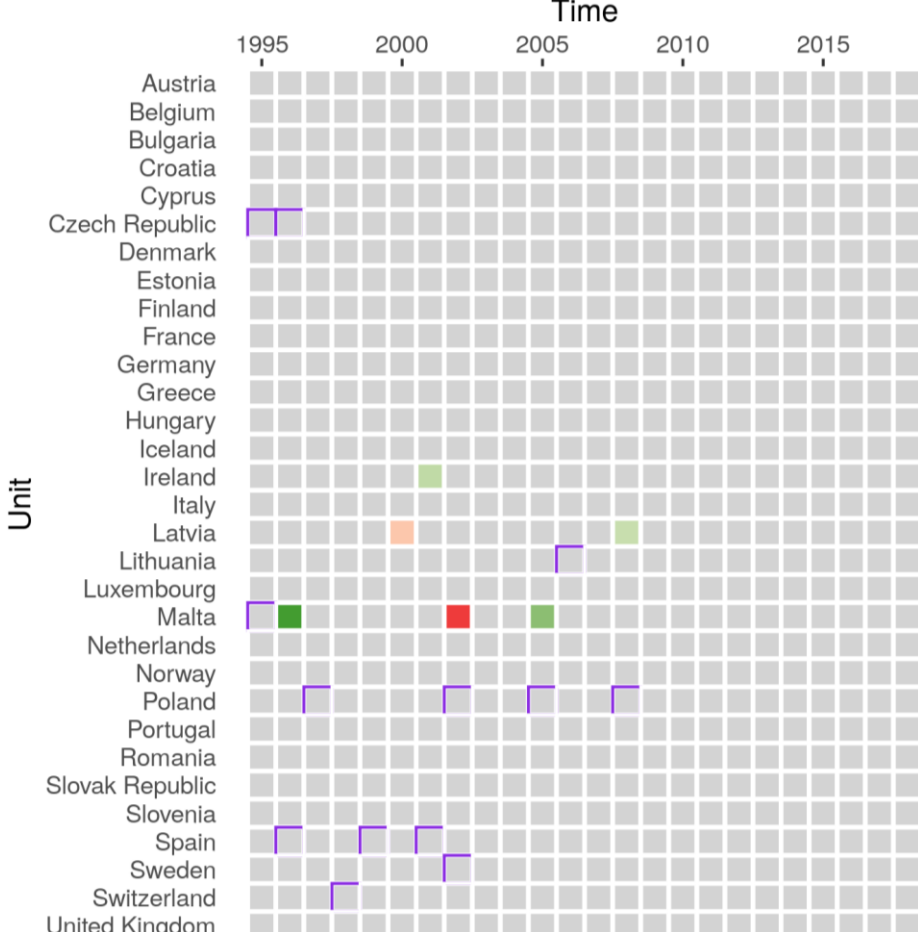
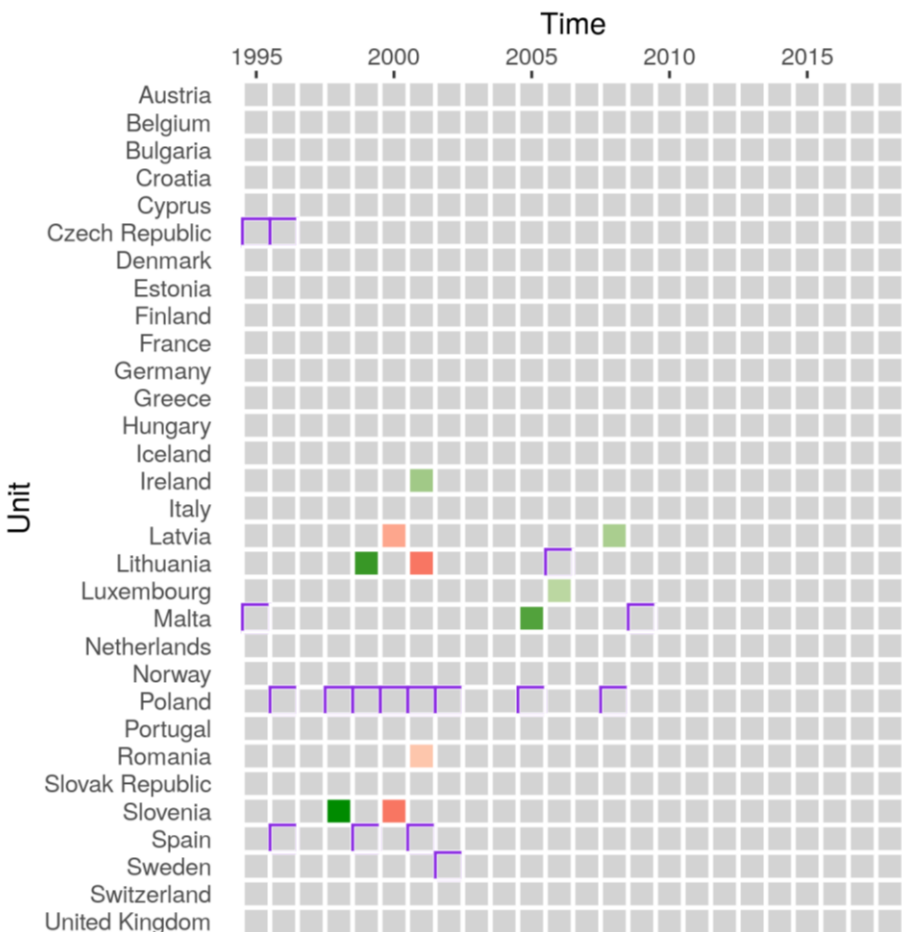
EU31

DV: growth rate(CO2 p.c.)  
with autoregressive lag      without autoregressive lag

1%



False Positive Rate: 0.5%





Country	Year	Sam ple	DV	Effect Size	Possible Treatment
Finland**	2000	EU15	level	-0.12	?2001: Change of basis for annual car ownership tax from total mass to CO2 emissions (ACEA 2016)?  ?1997: <a href="#">Significant increase</a> in carbon tax?
Sweden**	2001	EU15	<b>both</b>	-0.10 (level) -0.07 (pc)	2001-2005: <a href="#">Carbon tax increase from US\$44 to US\$109</a> per ton of CO2 (roughly <a href="#">equivalent</a> to 10ct/litre of petrol burned -> 25ct/litre) ⇔ 2001-2006: „ <a href="#">Green Tax Shift</a> “ (2001-2006): overall raise of environmental taxes, income tax cuts, <a href="#">tax relief for biofuels</a>
Germany**	2002/ 2003	EU15	<b>both</b>	-0.13	?1999-2003: <a href="#">Annual increase of mineral oil tax</a> on fuel by 3.07ct/litre, respectively?  ?2004: Reduction of distance-based tax allowance for commuters from 36ct/km to 30ct/km ( <a href="#">National Communication, p.87</a> )?  ?2004: fuel and CO2 consumption labelling obligations for cars enter into force (ibid, p.88)?
UK**	2003	EU31	<b>both</b>	-0.15 (level) -0.11(pc)	2002: <a href="#">Company Car Tax Reform</a> : now taxed on a percentage of their list price according to CO2 emission bands; “ <a href="#">following</a> a review of the existing regime [which] encouraged those using company cars to drive extra, unnecessary miles on business”
France*	2004	EU31	<b>both</b>	-0.11 (level) -0.09 (pc)	2002: Road safety measures (speed limit decrease, penalty increase, extension of controls) ( <a href="#">National Communication, p.74</a> )
Germany**	2005	EU31	level	-0.18	2005: <a href="#">Einführung der LKW-Maut</a> auf Autobahnen und einigen Bundesstraßen
Sweden**	2006	EU31	level	-0.15	2001-2005: <a href="#">Carbon tax increase from US\$44 to US\$109</a> per ton of CO2 between (roughly <a href="#">equivalent</a> to 10ct/litre of petrol burned -> 25ct/litre) ⇔ 2001-2006: „ <a href="#">Green Tax Shift</a> “ (2001-2006): overall raise of environmental taxes, income tax cuts, <a href="#">tax relief for biofuels</a>  ?2007-2009: Green Car Subsidy of 1000€ ( <a href="#">National Communication, p.48</a> )?
Luxembourg**	2007	EU15	<b>both</b>	-0.08 (level) -0.138 (pc)	2007: Vehicle Tax Reform based on CO2 emissions ( <a href="#">National Communication, p. 163</a> )  ?2007: subsidy of 750€ for purchase of energy efficient cars (ibid, p.164)?  ?2007-2008: Raise in fuel tax by 2ct/litre (ibid, p.167)?
Ireland**	2009/ 2010	<b>both</b>	pc	-0.15	?2008: <a href="#">Change of basis</a> for Vehicle Registration Tax and Motor Tax (annual) from engine size to CO2 emissions?  2009: Introduction of Carbon Tax of 15€/tonne, increase of 20€ in 2011 ( <a href="#">National Communication, p. 99</a> )  ?2009: introduction of tax incentive of up to 1000€ for the purchase of bicycles for commuting (ibid, p.108)?
Sweden**	2010	EU31	pc	-0.16	2009: Exemption of „green cars“ from annual road tax for five years, both private and business (ACEA 2016)  ?2011: „ <a href="#">Inclusion of light commercial vehicles</a> and light vehicles into system of CO2-differentiated vehicle tax“?
Netherlands**	2014	EU31	level	-0.14	???
Ireland	2015	<b>both</b>	level	-0.19 (EU15) -0.24 (EU31)	?2015: <a href="#">Increase in Mineral Oil Tax</a>
Luxembourg	2015	EU31	pc	-0.4	???