



Environmental Taxes – The European UK Way

Environmental Taxes

EU is taking carbon reduction seriously

Carbon trading is only one part of tax jigsaw

More later

What else on the Environmental Tax front

Environmental Taxes

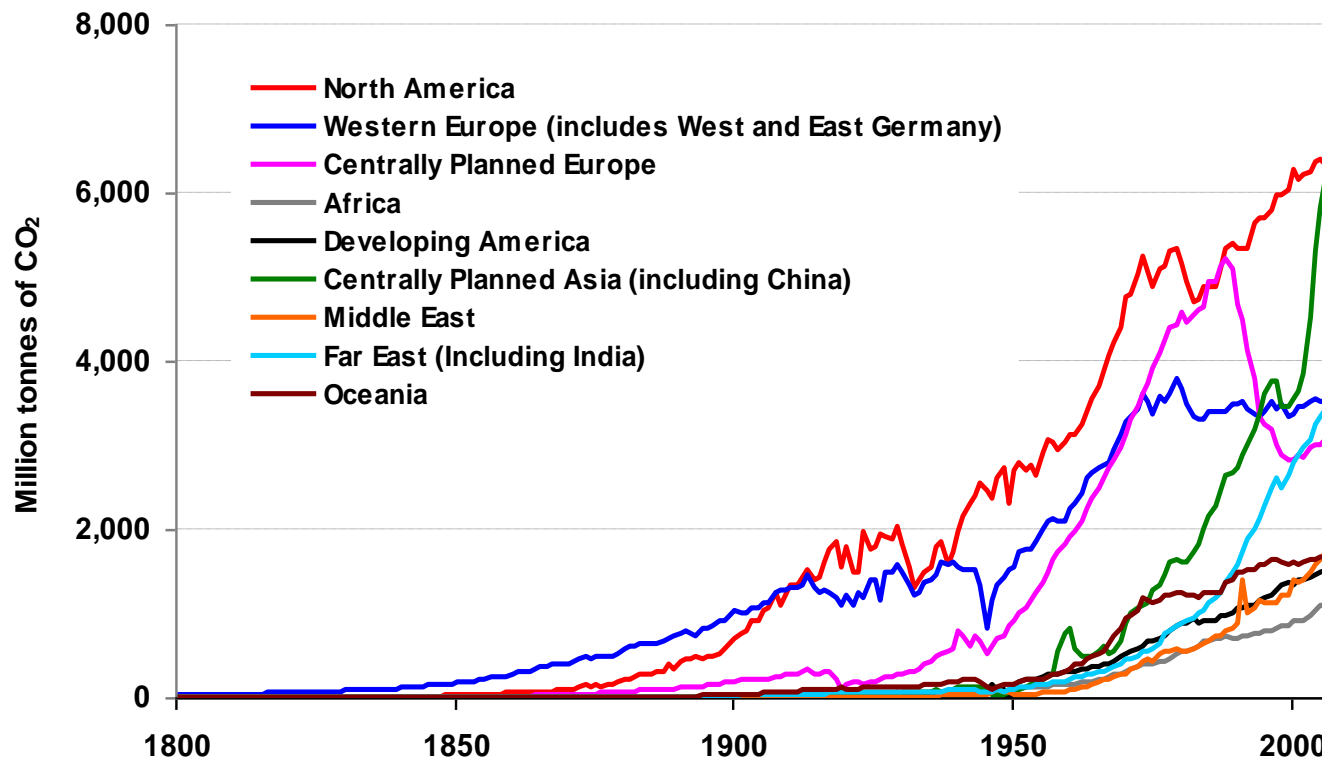
A surge in atmospheric CO₂ saw levels of greenhouse gases reach record levels in 2013

The World Meteorological Organisation (WMO)

Every day, according to the WMO, the oceans take up about 4kg of CO₂ per person

For the longest period when calculation of regional trends is sufficiently complete (1901 to 2012), almost the entire globe has experienced surface warming

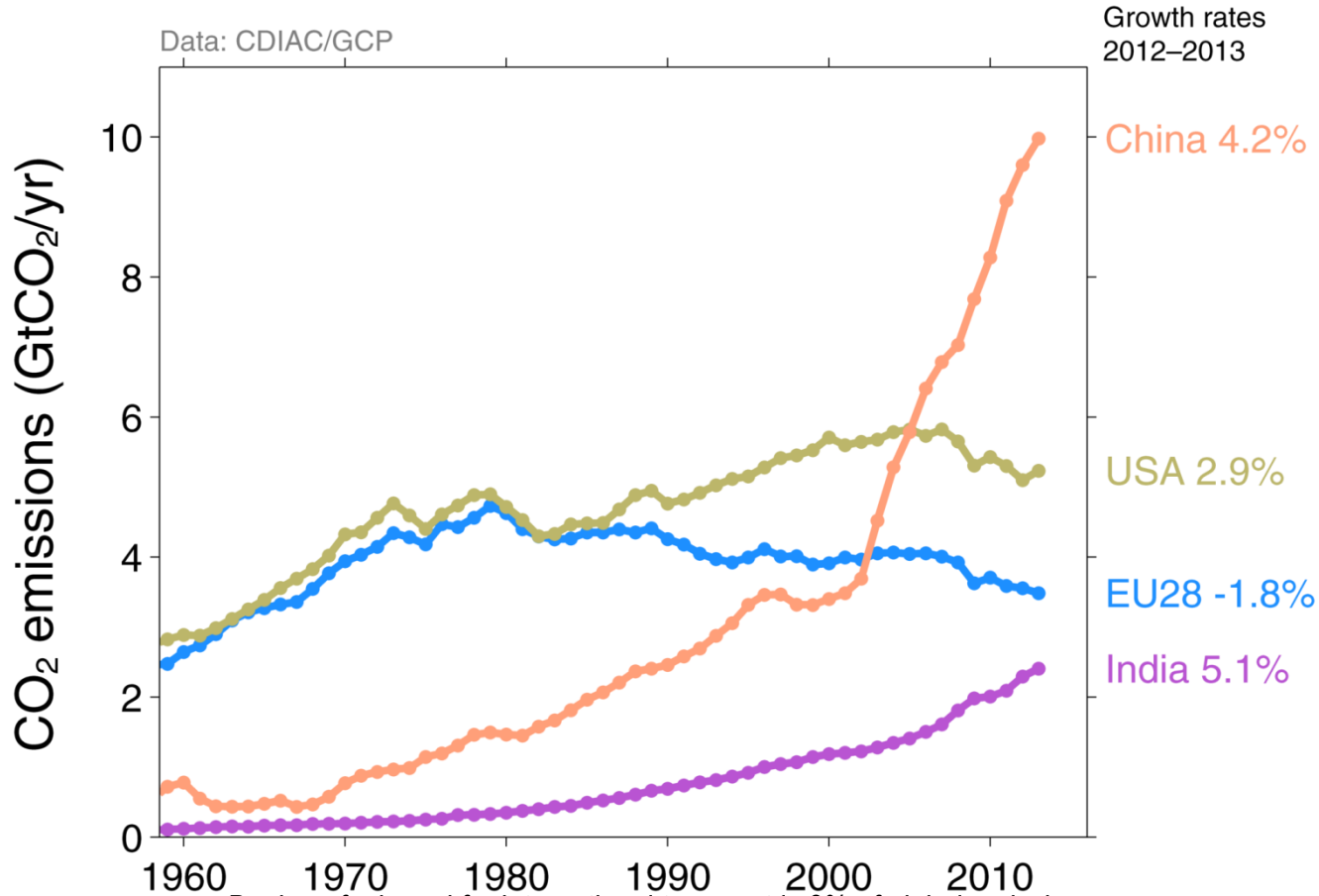
CO₂ emissions by region, 1800-2007 (fossil-fuel burning and cement)



Source: Boden, T.A., G. Marland, and R.J. Andres (2010): 'Global, Regional, and National Fossil-Fuel CO₂ Emissions' CDIAC, US Department of Energy

Top Fossil Fuel Emitters (Absolute)

The top four emitters in 2013 covered 58% of global emissions
 China (28%), United States (14%), EU28 (10%), India (7%)



Bunkers fuel used for international transport is 3% of global emissions
 Statistical differences between the global estimates and sum of national totals is 3% of global emissions

Source: [CDIAC](#); [Le Quéré et al 2014](#); [Global Carbon Budget 2014](#)

Environmental Taxes

Kyoto Protocol – one starting point

Emissions trading, as set out in Article 17 of the Kyoto Protocol

The new commodity created in the form of emission reductions or removals

2008-2012 is the commitment period

Trading since 2012

Environmental Taxes

Few would today dispute that humans are a part of the global warming problem

- This is not the reason for the interest

Our issue is how we create maximum CO₂ reductions with least pain

Generally the idea is to allow society to function, GDP and growth to be maintained yet progressively lower CO₂ emissions

Is Tax Right

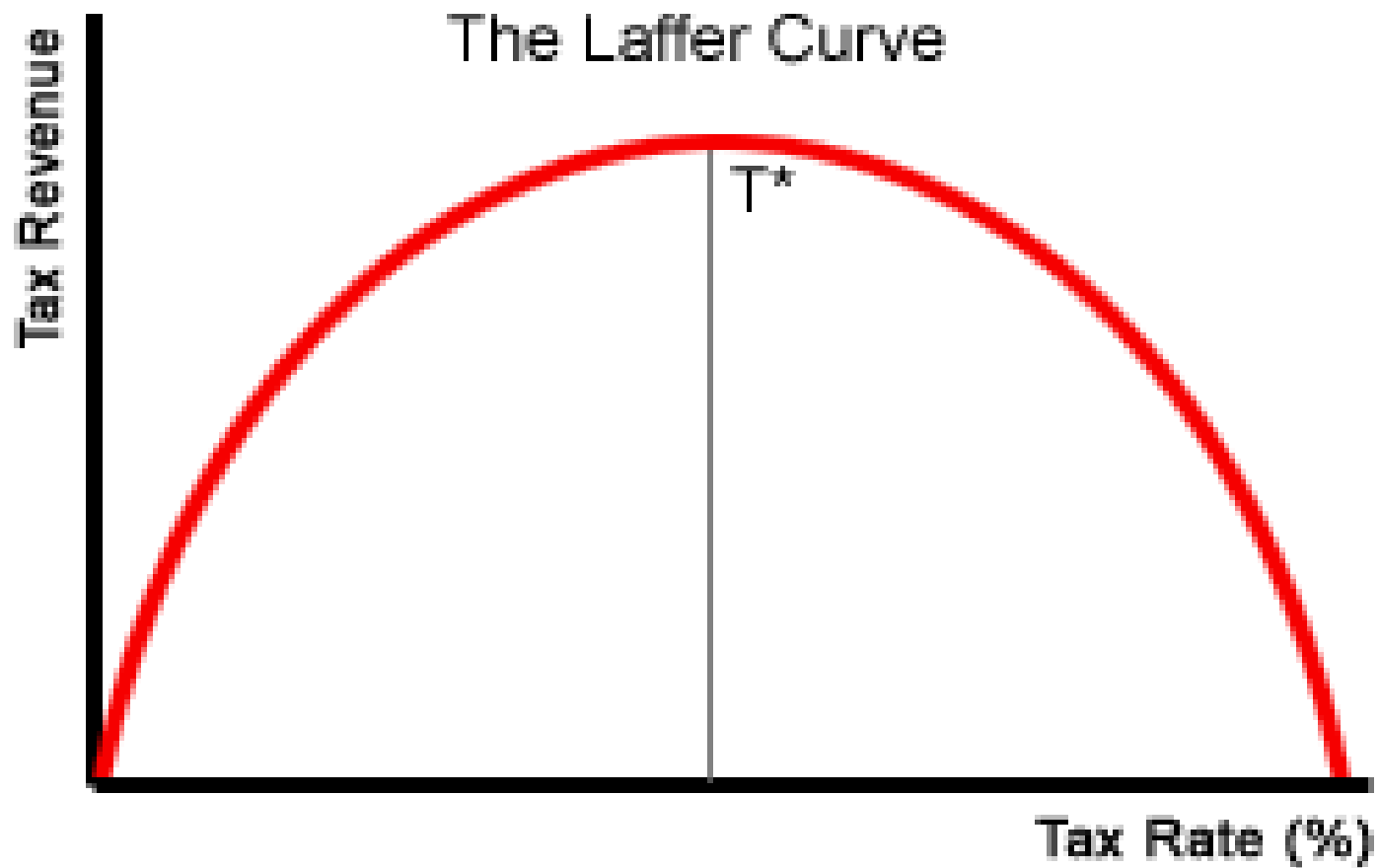
Environmental taxes are unique - why?

Taxes are not about stopping or curtailing behaviour

Taxes are revenue raisers - at least in developed economies

Only comparables are sin taxes – alcohol, tobacco and similar

Tax theory



Tax Theory

Optimisation may also be economically difficult if the Laffer Curve effect holds

This means the optimal rate could be where the tax take declines hence makes it even more difficult both economically and politically

In addition the optimal tax point is dynamic and may never be truly attainable

The European Approach

Tax policy inevitably lags

Politicians need to go through a parliamentary due process

Thus to track a difficult moving target has proved impractical

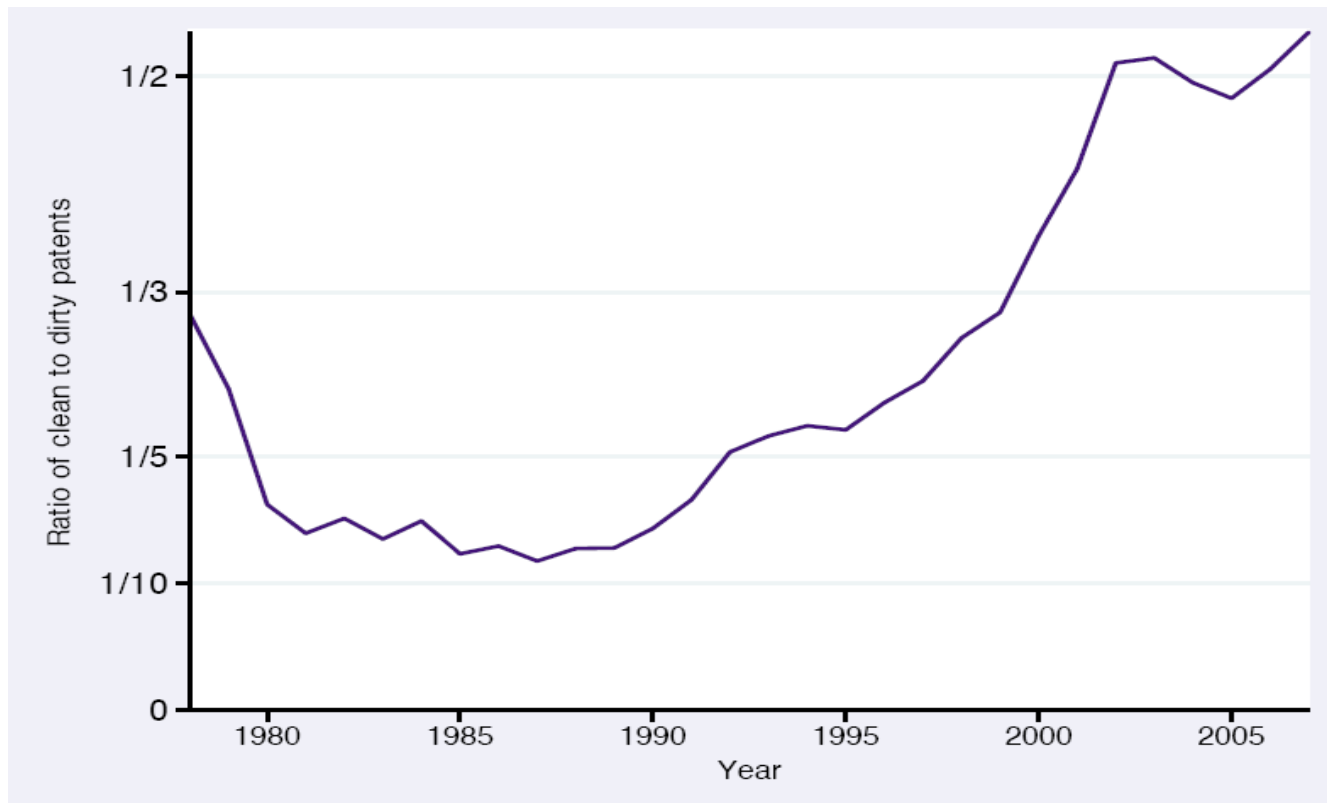
The European Approach

Price elasticity of demand for gasoline mean estimate:

(i) short-run -0.34

(ii) long-run -0.84 (Brons et al, 2008)

Relative prices drive innovation



The Reality on the Ground

Table 66: Environmental taxes as % of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Diff. (1) 2000 to 2012	Ranking 2012	Revenue (2) 2012
Belgium	2.4	2.4	2.4	2.4	2.5	2.5	2.3	2.2	2.1	2.2	2.2	2.3	2.2	-0.3	23	8 122
Bulgaria	2.7	2.5	2.3	3.0	3.2	3.0	2.9	3.4	3.4	3.0	2.9	2.9	2.8	0.2	9	1 119
Czech Republic	2.4	2.4	2.4	2.4	2.5	2.6	2.5	2.4	2.4	2.4	2.4	2.5	2.4	0.0	20	3 596
Denmark	4.7	4.7	4.8	4.7	4.8	4.9	4.8	4.6	4.2	4.0	4.0	4.0	3.9	-0.8	1	9 503
Germany	2.4	2.5	2.5	2.7	2.6	2.5	2.4	2.2	2.2	2.3	2.2	2.2	2.2	-0.2	22	58 004
Estonia	1.7	2.1	2.0	1.9	2.1	2.3	2.2	2.2	2.3	3.0	3.0	2.8	2.8	1.1	10	484
Ireland	2.8	2.4	2.4	2.3	2.5	2.5	2.5	2.5	2.4	2.4	2.6	2.5	2.5	-0.3	16	4 082
Greece	2.3	2.5	2.3	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.5	2.8	2.9	0.5	8	5 523
Spain	2.2	2.1	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.7	1.6	1.6	-0.6	28	16 152
France	2.2	2.0	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	-0.3	25	37 241
Croatia	:	:	4.1	4.2	4.0	3.9	3.8	3.7	3.4	3.4	3.7	3.3	3.2	:	4	1 390
Italy	3.2	3.0	2.9	3.0	2.8	2.8	2.8	2.7	2.5	2.7	2.6	2.7	3.0	-0.1	6	47 257
Cyprus	2.7	3.0	3.0	3.8	4.0	3.5	3.3	3.4	3.2	2.9	2.9	2.9	2.7	0.0	11	477
Latvia	2.4	2.2	2.3	2.5	2.6	2.7	2.4	2.1	2.0	2.3	2.4	2.5	2.4	0.0	19	538
Lithuania	2.5	2.6	2.8	2.8	2.7	2.3	1.8	1.8	1.6	2.0	1.8	1.7	1.7	-0.8	27	548
Luxembourg	2.8	2.8	2.8	2.8	3.1	2.9	2.6	2.5	2.6	2.6	2.4	2.4	2.4	-0.4	18	1 039
Hungary	3.0	2.9	2.8	2.8	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.5	2.5	-0.5	13	2 471
Malta	3.6	3.5	3.3	3.3	3.0	3.2	3.3	3.7	3.4	3.3	3.0	3.2	3.0	-0.6	7	204
Netherlands	3.8	3.6	3.5	3.6	3.7	3.8	3.9	3.7	3.8	3.8	3.8	3.7	3.6	-0.2	3	21 319
Austria	2.4	2.6	2.7	2.7	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.5	2.4	0.0	17	7 484
Poland	2.1	2.1	2.4	2.4	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.5	0.4	14	9 605
Portugal	2.6	2.9	3.0	3.0	3.0	3.0	2.9	2.8	2.6	2.5	2.5	2.4	2.2	-0.4	21	3 596
Romania	3.4	2.4	2.1	2.4	2.4	2.0	1.9	2.1	1.8	1.9	2.0	1.9	1.9	-1.5	24	2 551
Slovenia	2.9	3.2	3.3	3.3	3.3	3.2	3.0	3.0	3.0	3.6	3.6	3.4	3.8	0.9	2	1 348
Slovakia	2.2	2.0	2.2	2.4	2.5	2.4	2.3	2.1	2.0	2.0	1.9	1.9	1.8	-0.5	26	1 245
Finland	3.1	3.0	3.1	3.2	3.2	3.1	3.0	2.7	2.7	2.6	2.8	3.1	3.1	-0.1	5	5 909
Sweden	2.8	2.8	2.9	2.9	2.8	2.9	2.7	2.7	2.7	2.8	2.7	2.5	2.5	-0.3	15	10 168
United Kingdom	3.0	2.7	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.6	2.6	2.6	2.6	-0.3	12	50 709
Iceland	3.3	2.7	2.3	2.6	2.7	2.9	2.6	2.5	1.8	1.6	2.0	2.0	2.1	-1.2		220
Norway	3.2	3.2	3.3	3.2	3.2	3.0	2.9	2.9	2.6	2.6	2.7	2.5	2.4	-0.8		9 244
EU-28 averages															Total	311 683
weighted	:	:	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.4	2.4	2.4	2.4	:		
arithmetic	:	:	2.8	2.8	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	:		
EU-27 averages																

The Reality on the Ground

The UK has a declining trend

Many other EU countries the same

Scandinavia always seen as a leading light but

Denmark DK peaked below 5% of GDP in environmental taxes

Today at just 3.9%

The Reality on the Ground

Table 69: Environmental taxes as % of Total Taxation — Energy

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Diff. (%) 2000 to 2012	Ranking 2012	Revenue (%) 2012
Belgium	3.2	3.1	3.0	3.2	3.3	3.3	3.1	3.0	2.8	2.9	3.0	3.0	2.8	-0.4	28	4 812
Bulgaria	7.9	7.7	7.3	8.3	8.6	8.4	8.2	9.0	9.3	9.2	9.3	9.4	9.0	1.1	1	995
Czech Republic	6.1	6.5	6.1	6.2	6.5	6.7	6.5	6.2	6.3	6.7	6.6	6.6	6.3	0.1	7	3 349
Denmark	5.1	5.5	5.4	5.4	5.1	4.6	4.5	4.4	4.4	4.6	4.8	4.9	4.6	-0.6	23	5 388
Germany	5.0	5.4	5.6	6.0	5.7	5.5	5.2	4.8	4.8	5.0	4.9	4.8	4.5	-0.5	24	46 850
Estonia	4.0	5.3	4.8	5.0	5.9	6.3	5.9	5.7	6.1	7.2	7.7	7.5	7.5	3.6	3	427
Ireland	4.5	4.1	4.5	4.3	4.4	4.2	3.8	3.8	4.2	5.0	5.1	4.9	4.6	0.1	21	2 171
Greece	4.6	4.6	4.1	4.1	4.0	3.9	3.7	3.8	3.6	3.9	5.8	6.4	6.4	1.9	6	4 206
Spain	5.1	4.9	4.9	4.8	4.6	4.2	3.9	3.7	4.1	4.4	4.2	4.1	3.9	-1.2	25	13 113
France	4.0	3.8	4.0	3.9	3.9	3.7	3.6	3.4	3.3	3.5	3.4	3.3	3.3	-0.8	27	29 802
Croatia	:	:	7.1	7.0	6.6	6.2	5.9	5.4	4.7	5.2	6.0	5.2	4.8	:	17	758
Italy	6.2	5.9	5.6	5.8	5.5	5.4	5.2	4.8	4.4	4.8	4.7	4.9	5.3	-0.8	14	36 598
Cyprus	2.4	3.2	3.2	6.0	6.4	5.5	5.1	4.4	4.1	4.6	5.2	5.6	5.4	3.0	11	338
Latvia	6.2	5.8	6.2	6.9	7.5	7.7	6.5	5.6	5.7	7.7	7.3	7.0	6.8	0.6	4	425
Lithuania	5.6	6.2	6.9	6.9	6.3	6.0	5.5	5.3	5.0	6.3	6.2	5.9	5.8	0.1	9	516
Luxembourg	6.8	6.8	6.7	7.0	7.9	7.6	7.0	6.6	6.6	6.1	5.9	6.0	5.7	-1.0	10	968
Hungary	6.2	6.0	5.9	5.7	5.1	5.7	5.6	5.0	4.9	5.1	5.5	5.3	4.8	-1.4	18	1 834
Malta	4.9	5.1	4.4	4.0	3.9	3.8	3.9	5.2	4.4	4.3	4.5	4.9	4.7	-0.2	20	108
Netherlands	4.6	4.8	4.8	4.9	5.1	5.3	5.2	4.7	4.9	5.3	5.3	5.2	5.0	0.3	16	11 618
Austria	3.7	3.8	4.0	4.1	4.3	4.2	3.9	3.9	3.8	3.8	3.8	4.0	3.8	0.1	26	5 012
Poland	5.4	5.5	6.1	6.5	6.7	6.9	6.7	6.6	6.4	6.6	6.8	6.6	6.6	1.2	5	8 216
Portugal	5.0	5.8	6.6	6.8	6.9	6.5	6.2	6.0	5.7	6.1	5.8	5.3	5.2	0.2	15	2 802
Romania	10.7	6.7	6.2	7.3	7.9	6.6	6.0	5.8	5.0	6.0	6.7	6.0	6.1	-4.6	8	2 261
Slovenia	6.1	6.9	6.8	6.4	6.4	6.1	5.9	6.0	6.2	7.9	7.9	7.6	8.2	2.1	2	1 095
Slovakia	5.8	5.2	5.7	6.5	7.1	6.8	6.8	6.3	6.2	6.0	5.8	5.6	5.4	-0.4	12	1 083
Finland	4.2	4.4	4.4	4.5	4.5	4.2	4.1	3.8	4.0	4.2	4.2	4.8	4.7	0.5	19	4 007
Sweden	4.5	4.8	5.1	5.2	5.0	4.9	4.7	4.6	4.6	4.9	4.9	4.6	4.6	0.0	22	8 248
United Kingdom	6.5	6.1	6.2	6.0	5.8	5.5	5.1	5.1	4.9	5.7	5.6	5.3	5.4	-1.1	13	36 762
Iceland	3.0	2.7	2.6	2.4	2.4	2.5	3.0	2.9	2.7	3.4	4.1	3.8	3.9	0.9		150
Norway	4.3	4.2	4.1	4.1	3.6	3.4	3.2	3.2	3.1	3.3	3.1	2.9	2.7	-1.6		4 437
EU-28 averages															Total	233 762
weighted	:	:	5.2	5.3	5.1	4.9	4.7	4.5	4.4	4.7	4.7	4.6	4.6	:		

The Reality on the Ground

Surprise challenger on environmental tax front Bulgaria over 9% of tax take.

Denmark drops to 7th

France surprise last but socialist Government may change this

Realistically Southern European tax numbers not reliable.

Evasion 40% or more

The European Approach

Table 68: Environmental taxes as % of GDP — Energy

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Diff. (1) 2000 to 2012	Ranking 2012	Revenue (2) 2012
Belgium	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.3	1.2	1.3	1.3	1.3	1.3	-0.2	27	4 812
Bulgaria	2.5	2.4	2.1	2.6	2.8	2.6	2.5	3.0	3.0	2.7	2.6	2.6	2.5	0.0	2	995
Czech Republic	2.1	2.2	2.1	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	0.1	7	3 349
Denmark	2.5	2.7	2.6	2.6	2.5	2.3	2.2	2.1	2.1	2.2	2.3	2.3	2.2	-0.3	6	5 388
Germany	2.1	2.1	2.2	2.3	2.2	2.1	2.0	1.9	1.8	2.0	1.9	1.8	1.8	-0.3	17	46 850
Estonia	1.2	1.6	1.5	1.5	1.8	1.9	1.8	1.8	2.0	2.5	2.6	2.4	2.4	1.2	3	427
Ireland	1.4	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.4	1.4	1.4	1.3	-0.1	26	2 171
Greece	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.2	1.8	2.1	2.2	0.6	8	4 206
Spain	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.4	1.3	1.3	-0.5	28	13 113
France	1.8	1.6	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.5	1.4	1.5	1.5	-0.3	25	29 802
Croatia	:	:	2.7	2.6	2.4	2.3	2.2	2.0	1.8	1.9	2.2	1.8	1.7	:	18	758
Italy	2.6	2.4	2.3	2.4	2.2	2.2	2.2	2.0	1.9	2.1	2.0	2.1	2.3	-0.2	4	36 598
Cyprus	0.7	1.0	1.0	1.9	2.1	1.9	1.8	1.8	1.6	1.6	1.8	2.0	1.9	1.2	14	338
Latvia	1.9	1.7	1.8	2.0	2.1	2.2	2.0	1.7	1.7	2.1	2.0	1.9	1.9	0.1	13	425
Lithuania	1.7	1.8	2.0	2.0	1.8	1.7	1.6	1.6	1.5	1.9	1.8	1.6	1.6	-0.2	23	516
Luxembourg	2.7	2.7	2.6	2.7	2.9	2.8	2.5	2.4	2.5	2.4	2.3	2.3	2.3	-0.4	5	968
Hungary	2.5	2.3	2.2	2.2	1.9	2.1	2.1	2.0	2.0	2.0	2.1	2.0	1.9	-0.6	16	1 834
Malta	1.3	1.5	1.3	1.2	1.2	1.3	1.3	1.8	1.4	1.5	1.5	1.6	1.6	0.2	22	108
Netherlands	1.9	1.8	1.8	1.8	1.9	2.0	2.0	1.8	1.9	2.0	2.0	2.0	1.9	0.1	12	11 618
Austria	1.6	1.7	1.7	1.8	1.8	1.8	1.6	1.6	1.6	1.6	1.6	1.7	1.6	0.1	21	5 012
Poland	1.8	1.8	2.0	2.1	2.1	2.3	2.3	2.3	2.2	2.1	2.2	2.1	2.2	0.4	9	8 216
Portugal	1.6	1.8	2.1	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.7	0.1	20	2 802
Romania	3.2	1.9	1.7	2.0	2.1	1.8	1.7	1.7	1.4	1.6	1.8	1.7	1.7	-1.5	19	2 261
Slovenia	2.3	2.6	2.6	2.4	2.5	2.4	2.3	2.3	2.3	2.9	3.0	2.8	3.1	0.8	1	1 095
Slovakia	2.0	1.7	1.9	2.2	2.2	2.1	2.0	1.8	1.8	1.7	1.6	1.6	1.5	-0.5	24	1 083
Finland	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.6	1.7	1.8	1.8	2.1	2.1	0.1	10	4 007
Sweden	2.3	2.4	2.4	2.5	2.4	2.4	2.3	2.2	2.2	2.3	2.2	2.0	2.0	-0.3	11	8 248
United Kingdom	2.3	2.2	2.1	2.1	2.0	1.9	1.8	1.8	1.8	2.0	2.0	1.9	1.9	-0.4	15	36 762
Iceland	1.1	1.0	0.9	0.9	0.9	1.0	1.2	1.2	1.0	1.2	1.4	1.4	1.4	0.3		150
Norway	1.8	1.8	1.8	1.7	1.5	1.5	1.4	1.4	1.3	1.4	1.3	1.2	1.1	-0.7		4 437
EU-28 averages															Total	233 762
weighted	:	:	2.0	2.0	2.0	1.9	1.9	1.8	1.7	1.8	1.8	1.8	1.8	:		
arithmetic	:	:	1.9	2.0	2.0	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.9	:		

The Specifics

Energy taxes are favourite

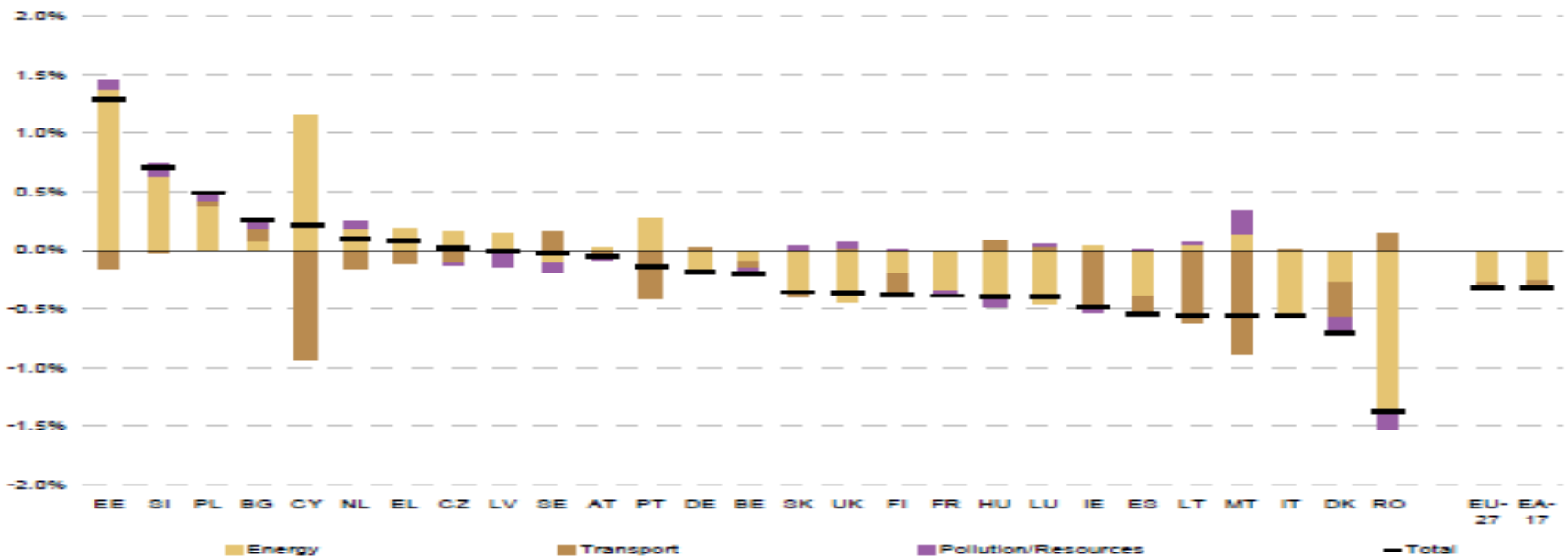
But no general trend

Cultural mind set and political expedience decides

Real zig zagging in implementation

The Trend

Graph 1.21: Evolution of the structure of environmental taxes
2000-2010, difference in % of GDP



Note: Weighted averages
Source: Commission services

The Trend

Quite a mix between EU states

Around 50% of member states have reduced their tax take from environmental taxes

Most interesting is that the net amount of take has also been reduced

Reduced for EU25, EU27, and EA 15

What Are The Taxes

Market failure	Tax	Trading schemes	Tax credits/ public spending	Voluntary agreements	Publicity campaigns	Regulation
Negative externalities	<ul style="list-style-type: none"> • Aggregates levy • Climate change levy • Landfill tax • Fuel duty 	<ul style="list-style-type: none"> • Emissions trading scheme • Landfill permits • Acid gas trading (proposed) 	<ul style="list-style-type: none"> • Reduced rate of VAT on grant-funded installation of central heating and heating appliances 	<ul style="list-style-type: none"> • Pesticides • EU CO₂ from cars agreement 		<ul style="list-style-type: none"> • Integrated pollution prevention and control • Water quality legislation
Positive externalities or public good			<ul style="list-style-type: none"> • Tax relief for cleaning up contaminated land • Public space • Agri-environment schemes 			<ul style="list-style-type: none"> • Habitats and species protection legislation
Information failures	<ul style="list-style-type: none"> • Differential rates of fuel duty 				<ul style="list-style-type: none"> • 'Are you doing your bit?' • Car labelling scheme • EU eco-label scheme and energy labelling 	<ul style="list-style-type: none"> • Environmental impact assessment directive

Note: Measures such as fuel duty can help to address information failures as well as external environmental effects.

CO ₂ emissions (g/km)	Column 1 (%)	Column 2 (%)	CO ₂ emissions (g/km)	Column 1 (%)	Column 2 (%)	CO ₂ emissions (g/km)	Column 1 (%)	Column 2 (%)
1 to 75 (unrounded)	5	8	130	18	21	175	27	30
76 to 94 (unrounded)	10	13	135	19	22	180	28	31
95	11	14	140	20	23	185	29	32
100	12	15	145	21	24	190	30	33
105	13	16	150	22	25	195	31	34
110	14	17	155	23	26	200	32	35
115	15	18	160	24	27	205	33	35
120	16	19	165	25	28	210	34	35
125	17	20	170	26	29	215*	35	

* This is the maximum CO₂ value for which a different percentage applies. Use this value if the figure at box G is greater than the maximum.

2014-15

The lower threshold will be reduced from 115g/km to 110g/km.

The lowest appropriate percentages are still 0 per cent and 5 percent. 11 per cent will now apply to cars with CO₂ emissions of 76g/km to 94g/km.

The appropriate percentage will increase by 1 per cent for all vehicles with CO₂ emissions between 95g/km and 210g/km, to a maximum of 35 per cent.

Changes from 2015-16

The appropriate percentage for zero emission cars reverts to 9 per cent unless this figure is changed in any future announcement.

The special rules for cars with CO₂ emissions not exceeding exactly 75g/km will be abolished.

The Specifics

Shown are the obvious taxes

The UK Government has said that it wishes to use the market to address environmental issues

The taxes are there to address what it considers to be areas of market failure

“Market failure” is an euphemism for higher than desirable CO2 output for an activity

These euphemisms however raise suspicions for Taxpayers

The Specifics

There are also some very detailed tax measures

E.g. enhanced Capital Allowances for environmentally friendly building components.

Highly complex and technical

Relief can apply to a specified type of wall which could reduce energy use

Separate relief was available from Stamp Duty for zero emissions residential property

Aggregates Levy

There is one rate per whole tonne. This is apportioned on amounts less than one tonne. So, for example, the levy due on half a tonne from 1 April 2009 is £1.00.

£ per tonne

£1.60 01.04.02 to 31.03.08 (inclusive)

£1.95 01.04.08 to 31.03.09 (inclusive)

£2.00 From 01.04.09

Emissions Trading

A part of the EU strategy in this area involves what is called emissions trading

Applies to 20 MW plus units

Broadly this is how it works

2008 EU member states will allocate/sell emissions credits to CO2 emitters via an approved purchaser known in the UK as a “primary purchaser”

The UK was in phase 2 which started 2008 i.e. most emissions credits issued free but a market created

Emissions Trading

Phase 2 from 2008 - 2012

2013 – 2020 onwards, known as phase 3, around 100% of credits will be auctioned

There can then be additional buying and selling among holders of the credits thus creating a full market

Year by year the level of credits hence CO₂ emissions will reduce therefore reducing EU emissions

While CO₂ trading EU interested in widening to other gases (nitrous oxide and per fluorocarbons for instance)

Emissions Trading

Australia introduced an emissions trading scheme from 1st July 2012 with a credit price floor per tonne of A\$23

Rising 2.5% per year until July 2015

Two points:

- Opposition party has promised to scrap
- Otherwise intend to join EU scheme 2015

Floor price will reduce to A\$15 in joining

New Australian Government in 2013 scheme scrapped in 2014

Emissions Trading

Tax effects are meant to be benign

Full VAT (GST) recovery where appropriate

May also be out side the scope in certain cases therefore not creating partial exemption of itself

Companies may elect

Emissions Trading

Direct tax perspective

Tax profits from sales

Deduct from profits costs

Therefore see-through and transparent

EU Level

The commission is also looking at tax in this area

They are in favour of market based instruments (MBIs) – as now happens in member states

But also looking to minimum tax levels for energy producing products i.e. gas, coal etc.

The commission will look much more to promoting the use of MBIs in the areas of transport, trying to extend these to shipping and aviation

The commission recognises that the distributional impacts i.e. less well off impacted more would need to be addressed perhaps through targeted measures

For instance UK offers free transport for pensioners

The Future

The global recession has probably delayed or deferred a greater switch to environmental taxes

With any new administration in the US starting in January there will be little appetite for environmental measures

California may well lead plans for CO2 emissions reductions and join global trading scheme

Globally, much more anti-tax sentiment than before

What about regulation?

Therefore watch this space tax and the environment may need to tread water for a while



ACCA

The global body for professional accountants



ACCA

The Tax Theory

The optimal tax should be set so that :

Marginal environmental damage = Marginal economic benefit

(MED = MEB)

Therefore MED = £5bn on car pollution may require another 50p / litre tax on fuel. But would create political problems

In addition while social welfare may increase by reducing CO2 emissions GDP may drop – currently or any other time not easy to accept by societies

Table 66: Environmental taxes as % of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Diff. (%) 2000 to 2012	Ranking 2012	Revenue (%) 2012
Belgium	2.4	2.4	2.4	2.4	2.5	2.5	2.3	2.2	2.1	2.2	2.2	2.3	2.2	-0.3	23	8 122
Bulgaria	2.7	2.5	2.3	3.0	3.2	3.0	2.9	3.4	3.4	3.0	2.9	2.9	2.8	0.2	9	1 119
Czech Republic	2.4	2.4	2.4	2.4	2.5	2.6	2.5	2.4	2.4	2.4	2.4	2.5	2.4	0.0	20	3 596
Denmark	4.7	4.7	4.8	4.7	4.8	4.9	4.8	4.6	4.2	4.0	4.0	4.0	3.9	-0.8	1	9 503
Germany	2.4	2.5	2.5	2.7	2.6	2.5	2.4	2.2	2.2	2.3	2.2	2.2	2.2	-0.2	22	58 004
Estonia	1.7	2.1	2.0	1.9	2.1	2.3	2.2	2.2	2.3	3.0	3.0	2.8	2.8	1.1	10	484
Ireland	2.8	2.4	2.4	2.3	2.5	2.5	2.5	2.5	2.4	2.4	2.6	2.5	2.5	-0.3	16	4 082
Greece	2.3	2.5	2.3	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.5	2.8	2.9	0.5	8	5 523
Spain	2.2	2.1	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.7	1.6	1.6	-0.6	28	16 152
France	2.2	2.0	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	-0.3	25	37 241
Croatia	:	:	4.1	4.2	4.0	3.9	3.8	3.7	3.4	3.4	3.7	3.3	3.2	:	4	1 390
Italy	3.2	3.0	2.9	3.0	2.8	2.8	2.8	2.7	2.5	2.7	2.6	2.7	3.0	-0.1	6	47 257
Cyprus	2.7	3.0	3.0	3.8	4.0	3.5	3.3	3.4	3.2	2.9	2.9	2.9	2.7	0.0	11	477
Latvia	2.4	2.2	2.3	2.5	2.6	2.7	2.4	2.1	2.0	2.3	2.4	2.5	2.4	0.0	19	538
Lithuania	2.5	2.6	2.8	2.8	2.7	2.3	1.8	1.8	1.6	2.0	1.8	1.7	1.7	-0.8	27	548
Luxembourg	2.8	2.8	2.8	2.8	3.1	2.9	2.6	2.5	2.6	2.6	2.4	2.4	2.4	-0.4	18	1 039
Hungary	3.0	2.9	2.8	2.8	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.5	2.5	-0.5	13	2 471
Malta	3.6	3.5	3.3	3.3	3.0	3.2	3.3	3.7	3.4	3.3	3.0	3.2	3.0	-0.6	7	204
Netherlands	3.8	3.6	3.5	3.6	3.7	3.8	3.9	3.7	3.8	3.8	3.8	3.7	3.6	-0.2	3	21 319
Austria	2.4	2.6	2.7	2.7	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.5	2.4	0.0	17	7 484
Poland	2.1	2.1	2.4	2.4	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.5	0.4	14	9 605
Portugal	2.6	2.9	3.0	3.0	3.0	3.0	2.9	2.8	2.6	2.5	2.5	2.4	2.2	-0.4	21	3 596
Romania	3.4	2.4	2.1	2.4	2.4	2.0	1.9	2.1	1.8	1.9	2.0	1.9	1.9	-1.5	24	2 551
Slovenia	2.9	3.2	3.3	3.3	3.3	3.2	3.0	3.0	3.0	3.6	3.6	3.4	3.8	0.9	2	1 348
Slovakia	2.2	2.0	2.2	2.4	2.5	2.4	2.3	2.1	2.0	2.0	1.9	1.9	1.8	-0.5	26	1 245
Finland	3.1	3.0	3.1	3.2	3.2	3.1	3.0	2.7	2.7	2.6	2.8	3.1	3.1	-0.1	5	5 909
Sweden	2.8	2.8	2.9	2.9	2.8	2.9	2.7	2.7	2.7	2.8	2.7	2.5	2.5	-0.3	15	10 168
United Kingdom	3.0	2.7	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.6	2.6	2.6	2.6	-0.3	12	50 709
Iceland	3.3	2.7	2.3	2.6	2.7	2.9	2.6	2.5	1.8	1.6	2.0	2.0	2.1	-1.2		220
Norway	3.2	3.2	3.3	3.2	3.2	3.0	2.9	2.9	2.6	2.6	2.7	2.5	2.4	-0.8		9 244
EU-28 averages															Total	311 683
weighted	:	:	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.4	2.4	2.4	2.4	:		
arithmetic	:	:	2.8	2.8	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	:		
EU-27 averages																

Emissions Trading

Controversially aeroplanes were brought within the scheme from 1st January 2012

Currently planes entering EU airspace can be subject to the scheme for the full journey

Massive opposition globally especially U.S., China, Russia and India

But scope to leave out third countries with reciprocal schemes

Scheme has been temporarily suspended