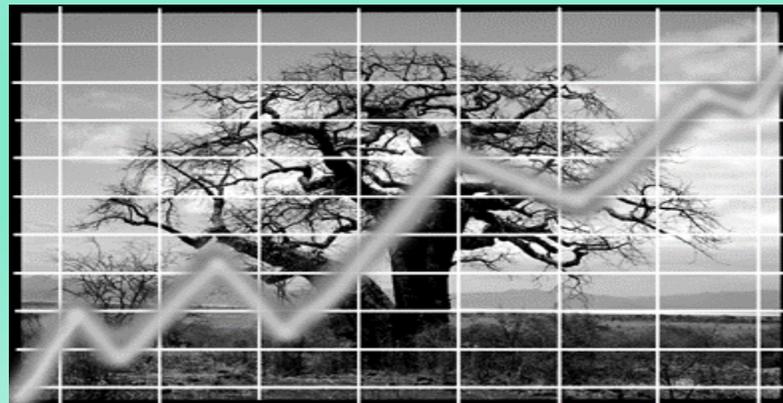


Environmental regulation: Economic impact and Brexit perspectives

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Outline

- Economic chapter in book on environmental regulation
- Economic impacts of environmental regulation
 - Costs and benefits of environmental regulations
 - Environmental goods and services sectors
 - Impacts on competitiveness
 - Uncertainties regarding environmental regulation
- Myths
- Porter hypothesis
- Best practice principles for improving regulations' economic impacts – how does WFD fare
- Developments in European environmental regulations
- History of the WFD – the 'English' Directive
- Implications of Brexit for the water sector
- Conclusions on WFD and Brexit

Developments in Environmental Regulation

1	Introduction to Environmental Regulation and Practice in the UK and Europe Martin Bigg	1
2	Environmental Regulation and Growth: Impact on Sustainable Economic Growth Jonathan Fisher	49
3	Better Regulation Initiatives Chris Booth	91
4	Steps Towards Radically Smarter Regulation in theUK (2012–2017) Edward Lockhart-Mummery	137
5	The Sector-Based Approach and Partnerships: Regulatory Interventions to Reduce Risk and Promote Compliance Jon Foreman	171
6	Implementing the Industrial Emissions Directive: The UK Environmental Permitting Regime for High-Risk Activities Adrian Kesterson	205
7	Environmental Regulation for High-Risk Materials and Hazardous Wastes Ken Westlake	225
8	Environmental Risk Management and Assurance Duncan Giddens	259
9	The Impact of Leaving the European Union and the Future of Environmental Regulation Martin Bigg	305

See <https://www.palgrave.com/gb/book/9783319619361#aboutBook>

HM Treasury's Framework for raising productivity and sustainable economic growth

Impacts on:

- 1. Business costs and investments**
2. Skills and human capital
- 3. Infrastructure**
- 4. Technical change and innovation**
- 5. Flexible, fair markets and competition**

Impacts on competitiveness = combined effects on 1- 5

Uncertainties regarding environmental regulation

Costs of water policies and regulations for water industry & agriculture

Figure 2.1: Direct Costs to Business of Defra's Regulations by Policy Area, 2012 (£m, %)

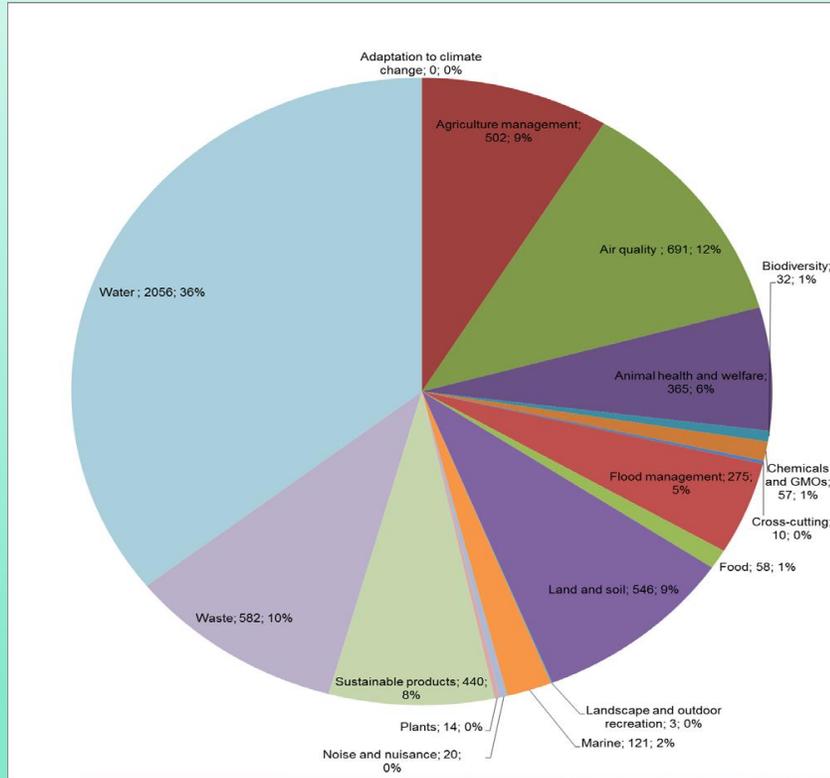
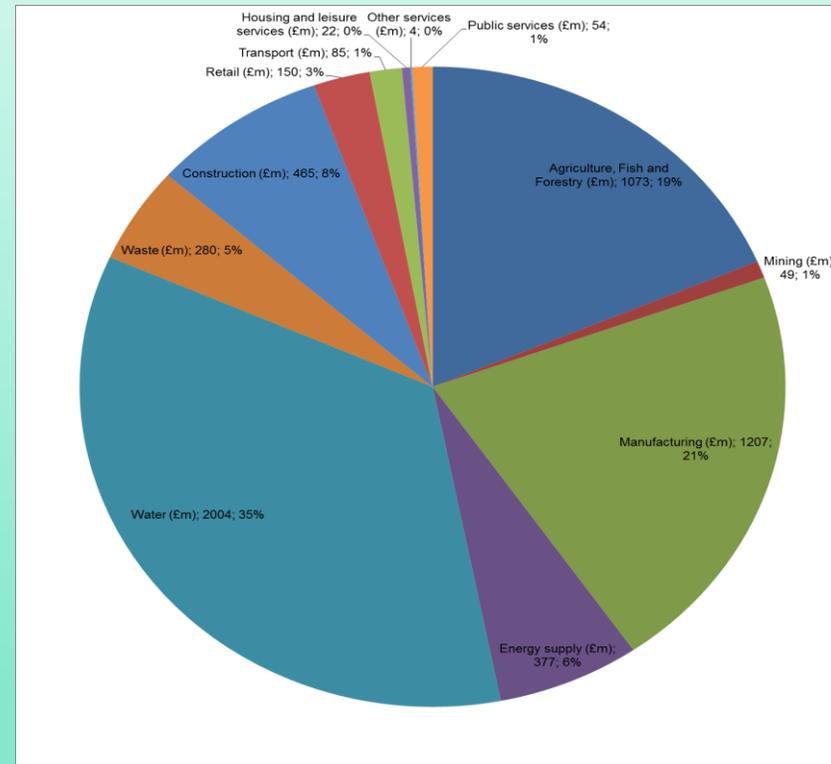


Figure 2.2: Direct Costs to Business of Defra's Regulations by Industry Sector, 2012 (£m, %)



Source: Defra (2015). Emerging Findings from Defra's Regulation Assessment, First update covering 2012

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UK Environmental Goods and Services Sector (EGSS)

In 2012:

- output = £55bn;
- GVA = 26bn (1.6% of GDP)
- 2357,200 FTE

Growth 2010 – 2012

- Output + 9.1%
- GVA + 1.5%
- FTE + 5.3%

Impacts of environmental regulations on competitiveness and pollution havens

Some studies show

- some adverse impacts on competitiveness.
- But traditional polluting industries with greatest cost impacts are least mobile.
- So plants closing rather than moving overseas (eg steel).

But Defra review

- several studies found no evidence of negative impacts
- Other factors (labour, market access, well defined property rights, governance and regulatory environment) more important

Investment decisions on new plants and locations concern long term

- Compare future environmental problems and regs in UK vs havens

Uncertainties about future environmental regulations

- Business concerns about any uncertainties
- Misplaced demands for “*certainty*” about future environmental regulations
- Not feasible since depends on uncertainties regarding
 1. Scale and significance of current and future environmental problems and pressures
 2. Public’s views and concerns about them.
 3. Costs and technical feasibility of control options and technological advances, which Business is best placed to assess themselves.
- Need stable and predictable regulatory ***process***
 - based on clear and credible evidence by government on 1 & 2
 - Eg State of the Environment, Natural Capital Committee, National Ecosystem Assessment
 - business can then assess 3 accordingly
- Recent failed illusory attempts to provide ‘certainty’ eg FITs

Myths and false claims

1. Environmental regulations increase growth (eg through growth of EGSS)
 - a) But opportunity costs for business (see earlier)
2. Over-estimation of costs and benefits of regulations
 - US: 34 case studies by Dick Morgenstern (Resources for the Future)
 - UK: Air pollution controls
 - PR04: EA and Ofwat scrutiny of Water industry draft business plans reduced the companies' cost estimates by 40%
 - Need empirical analysis of actual vs ex ante costs for regulations (eg where > 5% of industry's turnover.)
3. Porter hypothesis
 - Used by NGOs to support claims 1
 - But misquoted
 - Actually says “**properly designed** environmental standards (can) trigger innovation that may partially or more than fully **offset** the costs of complying”
 - Admits environmental regs can entail high costs – as in 1a

Overall conclusion on impacts of environmental regulation on economic growth

Available evidence is contested and not clear cut

But two firm conclusions:

1. Defra review: Not **significant** adverse economic impacts
 - Gross costs are just 0.16% of T/O of all businesses; 0.2% for mfr
 2. Need better environmental regulatory *'processes'* to reduce costs and any adverse economic impacts and enhance benefits and positive impacts on GESS.
 - ❖ Porter's Real conclusion
- Developed principles for how to improve impacts of environmental regulations on sustainable economic growth
- Based on Porter, best practice guidance (Defra, Cabinet Office, EC)

Best practice principles for improving environmental regulations' economic impacts

- Collaborate with other countries and share best practice
- Focus on achieving environmental outcomes - not prescribed technologies.
- Have strict rather than lax objectives to provide ongoing incentives to promote innovation
- Consider the costs and feasibility of the regulations and allow for exemptions where costs are disproportionately expensive.
- Base regulations and their implementation on a sound economic and financial appraisal of their costs and benefits, esp impacts on small firms
- Be proportionate.
- Integrate regulations in associated fields
- Have well defined phase in periods.

Best practice principles for improving environmental regulations' economic impacts

- Make the regulatory process more stable and predictable
 - by regulators providing clear, credible and comprehensible information on the current and likely future environmental problems and pressures
- Involve businesses, environmental NGOs and stakeholders
 - Need more collaboration and less adversarial litigation
- Use market incentives to provide continuing incentives
- Minimise time and resources consumed in the regulatory process
- Enhance the technical and economic capabilities of regulators
- Provide clear guidance for business regarding the regulations
- Transparency regarding the measures to be implemented and their costs and benefits - also in competing countries, especially Europe.

Developments in European Environmental regulations: Brexit myths and fake news

1. Considerable UK influence: eg
 - Integrated Pollution Prevention and Control (IPPC) Directive (now Industrial Emissions Directive) based on UK's Integrated pollution control (IPC) policy for regulation of major installations
 - WFD (see later)
2. EU environmental regs are now mostly *framework* directives
 - Less prescriptive
 - Set overall aims and targets
 - Give Member states flexibility in how achieve them
 - Allow for exemptions if disproportionately costly
 - Require transparent justification for measures implemented and what not done because too costly

Brexit and environmental regulations

- Increasing political and economic attention and concern regarding economic impacts of regulations
- But concerns about daft proposals for sunset clauses and Henry VIII powers to revise environmental regulations
- Business concerns regarding uncertainties about regs
- Need focused and measured review programme based on hard evidence of
 - any adverse economic impacts
 - Where we could address such impacts through better implementation (not legislative change)
- Any such impacts of environmental regulations < adverse economic impacts of immigration and border controls post Brexit (depending on outcome regarding friction free trade)

History of European water policies and WFD

- 1970s: Uniform Emissions Standards (UES) – Germany
- vs Environmental Quality Objectives (EQO) – UK
- UWWT – in line with UES
- 2000 Developed WFD - UK driver and embodies EQO
- Another prime example of UK positively influencing EU policies
- WFD implementation
 - 2013 Defra Catchment based approach for RBMP2

WFD vs best practice principles for improving regulations' economic impacts

- Developed in close collaboration with other EU countries
 - potential exports for UK environmental services (rather than infrastructure)
- Focus on environmental outcomes
- Aims to achieve ambitious objectives geared to state of water bodies
- Allows flexibility for Member States to draw up River Basin Management Plans to achieve the objectives and desired outcomes
- Achieve significant environmental benefits
- RBMP2: Benefits (pv 22.bn) > Costs (pv 17.5bn). BCR = 1.3
- Explicitly allows for exemptions if some measures are disproportionately expensive
 - in RBMPs and also Art 16 re Priority Hazardous Substances

WFD vs best practice principles for improving regulations' economic impacts

- **Transparency.** Member States have to set out the measures in their RBMPs and their costs and benefits and the extent to which they cover the full costs of water services
 - **Have well defined phase-in periods – 6 year cycles**
- ⇒ **WFD regulatory process more stable and predictable**
- Article 14 - encourages active involvement of interested parties
 - Involved businesses, environmental NGOs and stakeholders
 - Need more collaboration and less adversarial litigation (eg by WWF)
 - **Market incentives.** Article 9: member states to report on extent water prices cover financial, environmental and resource costs of water services.

Brexiters arguments vs WFD

A. Brexit > lower energy costs if not s.t EU renewable energy targets.

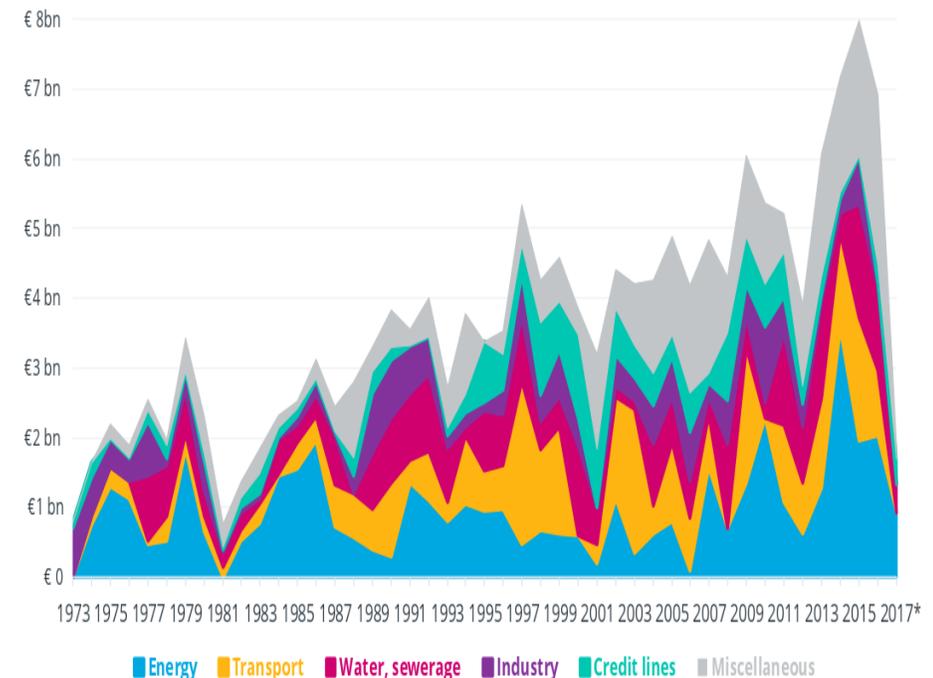
But:

- *But Most renewables costs already in the current system*
- *Fall in £ => higher cost of energy imports.*
- *Weakened cross-border energy market and access (eg cross channel interconnector) to lower cost energy in Europe*
- *? Rise in water industry's cost of capital*
 - *Loss of EIB funding => rise in cost of capital*

B. Brexit enable water sector to hire skilled labour outside EU

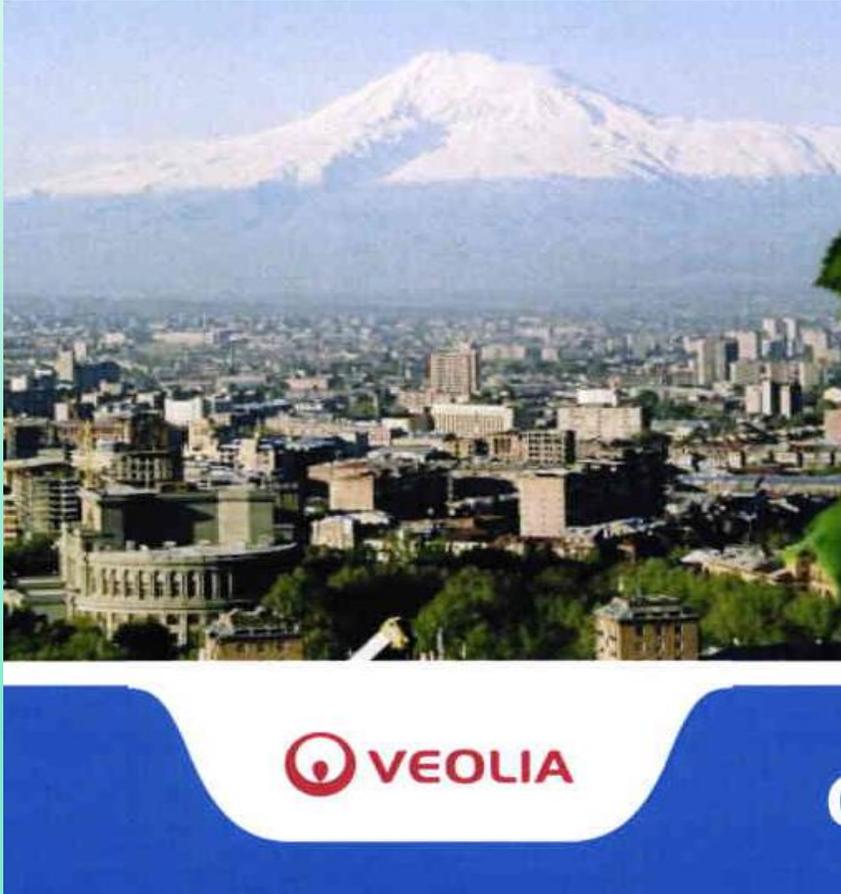
- *But still need access to EU skilled labour*

European Investment Bank finance for UK projects annually by sector, 1973-2017
Adjusted for inflation, 2016 values



Source: Institute for Government analysis of European Investment Bank, Projects financed: multi-criteria list, 2017

Brexiters arguments vs WFD



C. Brexit => opportunities for UK export water infrastructure outside EU

- *But market is sewn up by French and German companies*
- *Main potential for UK is services for Integrated water mgt.*
- *But exiting the EU and WFD will constrain ability to exploit this.*

D. Brexit => flexibility to decide what regulations are best for the UK

- *Agree WFD 2027 target too costly or not technically feasible*
But we could have achieved this without Brexit.

Conclusions

- No evidence of **significant** adverse economic impacts of environmental regulations
 - < adverse impacts on business of border controls and immigration controls
- Need better environmental regulatory ‘processes’ to reduce costs and any adverse economic impacts and enhance benefits
 - Principles for how to improve impacts on sustainable economic growth
 - WFD process fares well

Re Brexit, regulatory “alignment” and the WFD

- Strong UK influence in recent development of environmental regs
- Convert GES 2027 target to ‘aim to achieve’ in subsequent RBMPs
- Retain WFD with its essentially rational ‘English’ processes
- EU WFD => UK WFD or EW WFD

Thank you

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