THE BENEFITS OF THE EU'S CHEMICAL REGULATIONS

Friends of the Earth Europe

BEUC The European Consumer Organisation

€3.4 - 10.9 BN
WATER PURIFICATION COSTS SAVED BY REACH

€6.9 - 34.4 BN
HEALTH COSTS SAVED BY REACH

65,000
EUROPEANS DIE YEARLY FROM CARCINOGEN EXPOSURE AT WORK

€157 BILLION
ESTIMATED COSTS OF DISEASES RELATED TO HORMONE-DISRUPTERS

INTRODUCTION

EU rules designed to protect our health and our environment from dangerous chemicals could be at risk as a result of the European Commission's converging agendas on trade and better regulation. The European Union is negotiating a new Transatlantic Trade and Investment Partnership (TTIP), which is seeking to facilitate trade between EU countries and the United States. At the same time the Commission's Better Regulation agenda[1] is seeking to reduce the regulatory costs faced by businesses operating in the EU, adding to the momentum for deregulation.

Advocates of TTIP claim that aligning standards across the Atlantic will bring economic benefits, with consumers able to benefit from cheaper goods.[2] But the EU and the US have very different approaches to chemical regulation, and many fear that attempts to align the rules for chemicals will weaken rules designed to protect our health and the environment. TTIP is seen as bringing economic benefits, but can these be compared with the benefits of regulation which are often difficult or impossible to express in monetary terms?[3]

This case study looks at the economic benefits of the EU regulations for the chemical sector that may be at risk because of TTIP. It presents clear evidence that regulations have an economic benefit, which according to one estimate is in the region of €11 – 47 billion a year. This far exceeds the claimed total costs of the EU's chemical regulation, REACH, estimated by industry at €2 – 7 billion.[4] In addition, the actual benefits for European citizens are much higher as no estimate can be given for some of REACH's advantages such as living in a less toxic environment, safer workplaces and a higher quality of life.

COSTS OF CHEMICAL POLLUTION AND ECONOMIC BENEFITS OF CHEMICALS LEGISLATION

- Approximately 65,000 people in Europe die every year from the effects of carcinogens at work.[17]
- Avoiding exposure to carcinogens in the workplace could save €1.2-3.8 billion a year.[18]
- Avoiding three other diseases related to chemical-exposure in the workplace could save €1.4 - 10.8 billion annually at current prices.[19]
- REACH is estimated to be worth €6.9 - 34.4 billion annually in improved health outcomes.[20]
- The burden of disease costs attributable to endocrine-disrupting chemicals in the EU is estimated at €157 billion per year.[21]
- REACH reduces the costs of drinking water purification and disposal of sewage sludge by €3.4 – 10.9 billion at current prices.
- The cost of clearing up one major chemical hazard (based on half the cost of clearing up PCBs) was for instance estimated at €0.5 – 1.7 billion a year in current prices.
- The Commission's 2003 extended impact assessment[22] estimated the likely health benefits of REACH in the order of magnitude of €50 billion over a 30 year period or some €1.7 billion annually.

BACKGROUND

The US and the EU have very different approaches to managing the risk of chemical substances.

The EU's chemicals regulation (Registration, Evaluation, Authorisation and restriction of Chemicals – known as REACH) was introduced in 2006 to bring a common approach to regulating chemicals across the European Union.[5] It sought to address growing concerns that some substances in common use posed a significant risk to our health and the environment, and to encourage innovation in safer alternatives.

Under REACH, European chemical manufacturers must submit specific information about the health and environmental effects of the chemicals they produce, while companies importing chemicals must provide the same information for imports. If the information is not available, the companies must carry out the necessary tests to be able to provide it. Any substances that do not meet the required standards can be restricted, and action must be taken to control the risks of chemicals considered to be of concern.

In the US, chemicals are regulated by the Toxic Substances Control Act (TSCA) which requires companies that start selling new chemicals in the US to provide any available information about the substances.[6] No information had to be submitted for the 84,000 chemicals already in use when TSCA was enacted. Restrictions can be imposed by the Environmental Protection Agency (EPA), where clear evidence exists that a chemical poses an unreasonable risk to health and the environment.

However, even when there is striking evidence, the US system does not reliably protect citizens and the environment from harmful exposure. For instance, EPA rules to prohibit the use of asbestos were challenged in the courts by industry and ultimately overturned, despite overwhelming evidence that asbestos is a known carcinogen.

INDUSTRY PRESSURE TO DEREGULATE

With support from the US government, the US chemical industry fiercely lobbied against the introduction of REACH, and the US has since 2006 repeatedly raised concerns about REACH acting as a technical barrier to trade in the World Trade Organisation (WTO).

In 2013, the US industry lobby (ACC) joined forces with the European chemical industry lobby (CEFIC) to use TTIP to weaken the REACH regulation. They called for a special body to be set up to look at regulation in the chemical sector with a view to minimising regulations, promote the use of cost-benefit analysis and a risk based approach instead of the EU's current hazard based approach to chemicals of high concern and application of the precautionary principle.[7]

THE BENEFITS OF REACH

The REACH regulation takes a precautionary approach to reducing risk from chemicals by seeking to prevent or minimise exposure to chemicals that pose a threat to health or the environment. It is designed to reduce the risks in situations of scientific uncertainty, and as such can be seen as a form of insurance policy, but it also reduces the costs of dealing with the every-day disposal of chemicals, minimising their impact on the environment and on human health.

As well as the environmental and human health benefits of minimising pollution, there are financial benefits and these can be costed. For example, reducing the discharge of toxic chemicals in water courses reduces the costs of providing clean drinking water and dealing with dredging sediment and sewage sludge. Estimates suggest this represents a saving of €3.4-10.9 billion at current prices.[8]

Early action to avoid chemical pollution is known to be both environmentally and economically beneficial,[9] and a delayed response to early indications of risk can have high economic and human cost.[10]

An estimate published by WWF in 2003 suggests that the overall benefits to society resulting from the improved health outcomes due to REACH could be as high as €6.9 - 34.4 billion a year.[11]

Avoiding a major chemical disaster has obvious benefits for the environment and for human health. The economic value of these benefits depends on the frequency and scale of the avoided events. But the cost of previous chemical disasters can provide some insight into the level of potential savings. The cost of clearing up one major chemical hazard (based on half the cost of clearing up PCBs) was for instance estimated at €0.5 – 1.7 billion a year in current prices, over 24 years.[12]

There are also wider benefits, including the development of safer alternative chemicals, as industry seeks alternatives in response to tougher chemicals laws, for example with an upsurge in patents for alternatives to phthalates, a category of industrial chemicals that are endocrine disruptors, in the lead up to new stricter rules.[13]

Adding up the costed benefits – and these represent just some of the benefits of REACH – could save between €11 – 47 billion a year. These savings far exceed the costs of implementing REACH (estimated at totally €2 – 7 billion[14]), and represent a significant proportion of the overall economic benefits of TTIP (which advocates claim to be in the region of €68 – 119 billion).

CALCULATING THE BENEFITS OF TTIP

The benefits of TTIP are based on global trade models used to calculate the economic impacts of increased trade. These models are often criticised because they rely on a number of contested assumptions.[15] Estimates of the economic benefits vary considerably. One widely-quoted study estimates that the benefits to the EU will be between €68 – 119 billion, another predicts losses.[16]

€34.4BN PER YEAR POTENTIAL IMPROVED HEALTH OUTCOMES DUE TO REACH

COSTS AND BENEFITS

It is clear that the wider social and environmental benefits and savings to society from this regulatory approach far exceed industry's costs.

Any attempts to weaken levels of regulation or delay new regulations through the Better Regulation initiative or TTIP, risks losing key forms of health and environmental protection provided by the EU's precautionary approach. While the benefits of these regulations are seldom costed by industry,[23] they deliver important social, environment and economic benefits.

The EU must recognise the true value of these regulations to society in negotiating TTIP or when reviewing existing and considering new regulations as part of the Better Regulation initiative. Reducing exposure to risky chemicals benefits individuals, society and the wider environment, and avoids costs to the overall economy. These savings could be worth as much as one third of the suggested €68 – 119 billion benefits from increasing trade in all sectors through TTIP – and are worth far more to society as a whole. The savings are also far above the actual costs for business of complying with REACH.

ENDNOTES

1 http://ec.europa.eu/smart-regulation/index_en.htm
2 http://ec.europa.eu/trade/policy/in-focus/ttip/about-ttip/
3 See for example Frank Ackerman (2006), The Unbearable Lightness of Regulatory Costs, Tuft University, http://www.ase.tufts.edu/gdae/pubs/wp/06-02unbearablelightnessreg.pdf
4 Frank Ackerman and Rachel Massey (2004),The True Costs of REACH, Nordic Council of Ministers, http://www.ase.tufts.edu/gdae/Pubs/rp/TrueCostsREACH.pdf
5 http://echa.europa.eu/regulations/reach
6 https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act
7 Center for International Environmental Law and ClientEarth (2014), Toxic partnership: A critique of the ACC-CEFIC proposal for trans-Atlantic cooperation on chemicals.
8 DHI Water and Environment (2005), "The Impact of REACH on the Environment and Human Health," DG Environment, http://ec.europa.eu/environment/chemicals/reach/pdf/background/impact_on_environment_report.pdf.Values expressed in earlier years' prices have been updated to 2014 euros using the Harmonised Index of Consumer Prices (HICP) for the EU28. "Current prices" refer to 2014 euros.
9 TemaNord (2004), Cost of Late Action – the Case of PCB, Nordic Council of Ministers, http://www.oecd-ilibrary.org/environment/cost-of-late-action-the-case-of-pcb_tn2004-556
10 EEA (2013), Late lessons from early warnings: Science, precaution, innovation, and EEA (2002), Late lessons from early warnings: The precautionary principle 1896-2000,
11 David Pearce and Phoebe Koundouri (2003), The social cost of chemicals: the cost and benefits of future chemicals policy in the European Union, World Wildlife Fund-UK, http://assets.panda.org/downloads/1654reachcbafindoc.pdf
12 TemaNord (2004), Cost of Late Action – the Case of PCB, Nordic Council of Ministers, http://www.oecd-ilibrary.org/environment/cost-of-late-action-the-case-of-pcb_tn2004-556
13 Baskut Tuncak (2013) Driving innovation: How stronger laws help bring safer chemicals to market, Center for International Environmental Law.
14 Frank Ackerman and Rachel Massey (2004),The True Costs of REACH, Nordic Council of Ministers, http://www.ase.tufts.edu/gdae/Pubs/rp/TrueCostsREACH.pdf
15 Raza et al (2014) ASSESS_TTIP: Assessing the Claimed Benefits of the Transatlantic Trade and Investment Partnership http://www.oefse.at/en/publications/detail/publication/show/Publication/ASSESS-TTIP-Assessing-the-Claimed-Benefits-of-the-Transatlantic-Trade-and-Investment-Partnership/
16 Centre for Economic Policy Research (2013), Reducing Transatlantic Barriers to Trade and Investment: An Economic Assessment, http://trade.ec.europa.eu/doclib/docs/2013/march/tradoc_150737.pdf; Capaldo, J. (2014), The Trans-Atlantic Trade and Investment Partnership: European Disintegration, Unemployment and Instability, Tufts University Global Development and Environment Institute Working Paper 14-03, http://www.ase.tufts.edu/gdae/Pubs/wp/14-03CapaldoTTIP.pdf
17 Cherrie J. et al. (2011), Health, socio-economic and environmental aspects of possibleamendments to the EU Directive on the protection of workers from the risks relatedto exposure to carcinogens and mutagens at work: summary report, Report toEuropean Commission. http://ec.europa.eu/social/BlobServlet?docId=10149&langId=en
18 RPA (2003), Assessment of the impact of the new chemicals policy on occupational health, DG Environment, http://ec.europa.eu/environment.chemicals/reach/pdf/background/finrep_occ_health.pdf
19 Simon Pickvance, Jon Karnon, Jean Peters and Karen El-Arifi (2005), Further assessment of the impact of REACH on occupational health with a focus on skin and respiratory diseases, School of Health and Related Research, University of Sheffield, UK. Final report prepared for the European Trade Union Institute, http://www.etui.org/Publications2/Reports/The-impact-of-REACH-on-occupational-health-with-a-focs-on-skin-and-respiratory-diseases
20 David Pearce and Phoebe Koundouri (2003), The social cost of chemicals: the cost and benefits of future chemicals policy in the European Union, World Wildlife Fund-UK, http://assets.panda.org/downloads/1654reachcbafindoc.pdf
21 Leonardo Trasande et al. (2015), Estimating burden and disease costs of exposure to endocrine-disrupting chemicals in the European Union, Journal of Clinical Endocrinology and Metabolism 100, 1245-1255. http://press.endocrine.org/doi/10.1210/jc.2014-4324.
22 COM(2003)644 final; [Extended Impact Assessment for REACH] http://ec.europa.eu/environment/chemicals/reach/pdf/background/eia_se_2003_1171.pdf
23 Chemsec (2015) Cry Wolf: Predicted costs by industry in the face of new environmental regulations http://chemsec.org/chemsec-report-released-on-how-companies-cry-wolf-in-the-face-of-new-environmental-laws/

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