The Hare and the Tortoise Revisited : The New Politics of Consumer and Environmental Regulation in Europe

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INTRODUCTON

Since the 1960s, both the scope and stringency of environment and consumer protection have significantly expanded in all industrialized countries. At the same time, regulatory politics and policies continue to exhibit substantial cross-national variation. For example, within Europe, Sweden, Austria, Finland, Germany, the Netherlands, Denmark and Norway are often regarded as environmental "pioneers," while Greece, Italy, Spain and Portugal are considered environmental "laggards."[1] Over the last three decades, the former have often been the first to enact new environmental regulations and their standards have tended to be relatively stringent, while laggard countries have adopted regulations later and their standards tend to be weaker and less comprehensive. "Although policy *agendas*, broadly speaking, have converged on a host of issues worldwide, specific national *policies* for managing health, safety and environmental risk continue to diverge, even when they are ostensibly based on the same bodies of scientific information."[2] (italics in original)

This article describes and explains an important shift in the pattern of divergence between consumer and environmental protection policies in Europe and the United States. From the 1960s through the mid 1980s, American regulatory standards tended to be more stringent and innovative than in either individual European countries or in the European Union (EU).[1] The period between the mid 1980s and 1990 was a transitional period: some regulations were more stringent and innovative in the EU, while others were more stringent and innovative in the United States. The pattern since 1990 is the obverse of the quarter-

[1] While the European Union was known as the European Community during some of the time-period examined in this article, for the purposes of clarity only the former term will be used. Legally most EU regulations take the form of directives; however for the purposes of comparative analysis, they are referred to as regulations.

century between 1960 and the mid 1980s: recent EU consumer and environmental regulations have typically been more stringent and innovative than those of the US.

To borrow Lennart Lundqvist's formulation, which he used to contrast American and Swedish air pollution control standards during the 1970s, since around 1990 the American "hare" has been moving forward at a tortoise pace, while since the mid 1980s the pace of the European "tortoise" resembles that of a hare. [3] To employ a different metaphor, in a number of significant respects European and American regulatory politics and policies have "traded places." Regulatory issues were formerly more politically salient and civic interests more influential in the United States than in most individual European countries or the EU. More recently, this pattern has been reversed. Consequently, over the last fifteen years, the locus of policy innovation with respect to many areas of consumer and environmental regulation has passed from the US to Europe.

This historical shift in the pattern of divergence of European and American consumer and environmental regulations poses two questions. First, why has consumer and environmental regulation become more stringent and innovative in Europe since the mid 1980s? Second, why did it become less stringent and innovative in the US after 1990? This article addresses both these questions, but it focuses primarily on describing and explaining the shift in European regulatory politics and policies.

The first section of this article reviews comparative studies of European and American regulatory policies and politics prior to 1990. It then documents the subsequent changes in the relationship between American and European regulatory standards. The following section explores the changes in European public administration that have accompanied these shifts in European regulatory politics and policies. It then presents an

explanation for the "new" politics of consumer and environmental regulation in Europe. They are attributable to three inter-related factors: a series of regulatory failures within Europe, broader and stronger political support for more stringent and comprehensive regulatory standards, and the growth in the regulatory competence of the European Union.

In a number of important respects, European regulatory politics and policies since the mid 1980s resemble those of the United States from the early 1960s to 1990, a parallel which the article explores. The final substantive section offers an explanation for the slow-down in the pace of American consumer and environmental regulation after 1990. The article concludes by presenting a model of the dynamics of regulatory stringency.

AN HISTORICAL CONTEXT

From the 1960s through the mid 1980s, a number of important consumer and environmental protection standards were more stringent in America than in Europe. According to a comprehensive study of chemical regulation published in 1985, the United States, Great Britain, France and the Federal Republic of Germany "have compiled similar records in controlling substances suspected of causing cancer in humans."[4] Yet the study also points to a number of cases of relative American stringency. For example, "British agencies generally require more definite evidence of carcinogenetic before initiating regulatory action than their American counterparts."[5] More often than not, the US was the first country to take significant restrictive action on suspected or confirmed human carcinogens.[6] For example, the American Environmental Protection Agency (EPA) found the pesticides aldrin and deildrin to be carcinogenic, while on the basis of the same studies British authorities concluded that they did not present a risk of cancer.[7] The US subsequently banned most uses of these pesticides while Britain imposed no restrictions. Red Dye No. 2 was banned in the

US, while its use was only restricted in Europe.[8] In 1971 EPA banned DDT while its use was only restricted in Britain, Germany and France, and nearly a decade lapsed before it was banned by the EU. Similarly the US imposed more extensive restrictions on 2,4,5-T/ dioxin than did Britain, France or Germany.

Furthermore, American chemical regulations were also more stringent and comprehensive. The 1958 Delaney clause to the Food, Drug and Cosmetic Act, which banned the use of any food additive if tests revealed that it caused cancer in either laboratory animals or humans on the grounds that such chemicals could cause irreversible harms, had no counterpart in any European country. The 1976 American Toxic Substances Control Act (TSCA), established regulations for both new and existing chemicals while the EU's 1979 Sixth Amendment only established regulatory procedures for approving new chemicals. (French, British and German national law did contain provisions for reviewing existing chemicals, but only in exceptional circumstances.) A similar pattern existed with respect to pesticide approval and renewals; American statutes enacted in 1972 and 1978 required more comprehensive reviews of existing pesticides than did either EU regulations or those of any Member State. [9]

During the 1970s, America adopted more stringent automotive emission standards earlier than Sweden.[10] A similar pattern held for American and EU automotive emission standards: the American automobile emission standards enacted in 1970 and 1977 were consistently stricter than the five increasingly stringent standards enacted by the EU between 1970 and 1985. [11] For example, while the US enacted legislation requiring all new cars to be equipped with catalytic converters and thus only use unleaded gasoline (petrol) in 1970, the EU did not adopt a similar requirement until 1989. During the 1980s, Sweden, Denmark and

Germany, three of Europe's most consistent environmental innovators, phased in standards comparable to those of the US after the US. [12] Likewise, the automotive standards established in the 1990 Clean Air Act Amendments were, at the time they were issued, more stringent than EU standards.

Environmental impact assessments were adopted by the US in 1969; they were not required by the EU until 1985. The US Congress responded in 1971 to a sustained campaign by American environmentalists and voted to deny public funds to construct a supersonic aircraft after a coalition of American environmental groups argued "the plane would create a dangerous sonic boom, increase upper atmosphere pollution and adversely affect the nation's weather patterns."[13] In contrast, France and Great Britain continued to support the commercial development of this aircraft.

During the mid 1970s, the issue of ozone layer depletion emerged as a major political issue in the US. Though there was considerable unscientific certainty about both the causes and magnitude of this environmental problem, the 1997 Clean Air Act Amendments authorized restrictions on CFCs on the grounds that a "reasonable expectation" of harm was sufficient to generate regulatory action. [14] However even before this law was passed, EPA, acting under authority of TSCA moved to prohibit the use of CFCs as aerosol propellants in nonessential applications. This decision affected nearly $3 billion worth of household products. Within three years nearly the entire US aerosol market had switched to non-CFC technologies. By contrast, in Europe, the issue of ozone depletion was less politically salient and the political influence of chemical producers was proportionally greater. Only Norway and Sweden, neither of which produced these chemical, banned the use of CFCs as aerosol propellants. The EU initially refused to act but in 1980, in response to American pressures, it

agreed to a 30% decrease from 1976 levels by 1981 – a reduction characterized by one European scholar as "a minimum solution."[15] According to British environmental expert Nigel Haigh, "There is reason to believe that the figure of 30 percent was chosen because it was known that it could be achieved without causing too much difficulty for industry."[16]

Lathrop et al.'s 1983 comparative study of the siting of liquefied energy gas (LEG) facilities in four countries provides a stark illustration of the differences between American and European standards regarding the management of environmental risks, in this case specifically those of Great Britain.

> Recently California and the United Kingdom have approved sites for LEG terminals. In this, and perhaps this alone, they are the same. If the California siting criteria . . . were to be applied to the Scottish case, it would be impossible to approve [the site that was approved in Scotland] , and if the United Kingdom criteria . . . were to be applied to the California case, any of the suggested sites could be approved, which means that the terminal would go to the first site to be suggested – Los Angeles harbor. [17]

Nor is this comparison atypical. According to Vogel's 1986 comparative study of British and American environmental policies, "American regulations in the area of health and safety have frequently been significantly stricter than Britain's." [18]

In the area of consumer protection, the US established more stringent standards for the approval of prescription drugs than did any European country. After the scandal surrounding the near approval of thalidomide by the Food and Drug Administration (FDA), in 1962 Congress enacted the Kefauver amendments to the Food, Drug and Cosmetic Act. This legislation significantly increased both the time and expense for securing approval for

new prescription drugs in the US. The result was a substantial cross-Atlantic "drug lag," with new drugs typically approved years earlier in Germany and Great Britain than in the US.[19] Nearly four times as many new medicines were introduced in Great Britain as in the US during the 1960s. According to a US Government Accounting Office study which tracked the introduction of 14 significant new drugs, 13 were available in Europe years before they were approved for use in the US. A West German study reported that while the US remained, by a wide margin, the leading producer of new drugs, it ranked ninth out of twelve countries studied in being the first nation to make drugs available to its citizens.

During the 1960s and 70s, "no country . . . so fully adopted the essence of the precautionary principle in domestic law as the United States."[20] For example, a precautionary approach underlay American food safety regulation, requiring companies to establish the safety of a process or an additive prior to approval. Under the Endangered Species Act (1966), a finding of potential irreversible harm to a threatened species could lead to an order to desist all development activities. A precautionary approach also informed many American environmental statutes enacted during of the 1970s. The 1970 Clean Air Act Amendments required the Environmental Protection Agency (EPA) to apply "an adequate margin of safety" in setting emission limits for hazardous pollutants and authorized EPA to "assess risk rather than wait for proof or actual harm" before establishing standards.[21] The Clean Water Act of 1972 adopted the precautionary and highly risk averse goal of zero emissions. And, as noted above, American legislation enacted in 1977 providing for the regulation of CFCs was based on the precautionary principle.

A precautionary approach toward risk regulation was also reflected in and reinforced by a number of judicial decisions. In a 1976 Court of Appeals decision upholding EPA's

ambient air standard for lead, the court reasoned: "A statute allowing for regulation in the face of danger is, necessarily, a *precautionary* statute. Regulatory action may be taken before the threatened harm occurs. . . . the statutes and common sense demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable"[22] (italics added). In *Sierra Club v. Siegler* (1983), the Supreme Court interpreted the environmental impact requirement of the National Environmental Policy Act as requiring a worst-case analysis on the grounds that it was needed "to assist decision making in the face of scientific uncertainty."[23] In *Reserve Mining* (1975), the Supreme Court permitted the EPA to regulate an effluent on the basis of a "reasonable" or "potential" showing of danger, rather than the more demanding "probable" threshold requested by the industrial plaintiff. In sum, "elements of the precautionary principle (are) firmly entrenched in U.S. environmental law."[24]

In sum, "studies of public health, safety and environmental regulation published in the 1980s revealed striking differences between American and European practices for managing technological risks." Moreover, "these studies showed that U.S. regulators were quicker to respond to new risks, more aggressive in pursuing old ones . . . ."[25] These differences in risk management policies persist, but beginning in the mid 1980s, in a wide range of policy areas, it is now European regulators who have become "quicker to respond to new risks, more aggressive in pursuing old ones."

THE NEW EUROPEAN RISK REGIME

One important area in which EU policies have become more stringent than in the EU is food safety. Europe and the US have historically had different food cultures, with European consumers and their governments more willing to accept the risks of traditional

foods such as raw milk cheeses and cured meats than the US, while Americans have been more open to new food technologies. [26] However, since the 1990s, differences between European and American food safety regulations have become more pronounced. The first significant EU consumer or environmental regulation more risk averse or stringent than its American counterpart was the Council of Ministers' 1985 directive banning the use of all growth hormones for cattle. The Directive's approval followed a vigorous public campaign led by the Bureau of European Consumer Unions, a coalition of national consumer unions. The EU was strongly influenced by a widespread consumer boycott of meat inspired by reports of deformities in infants due to their parents' consumption of hormone treated beef.

Although the EU's own scientific advisory bodies subsequently concluded that the five disputed hormones did not pose a threat to human health, and the European producers of the hormones vigorously opposed the ban, in the end public pressures proved decisive. As Franz Andreissen, the EC's farm commissioner put it, "Scientific advice is important, but it is not decisive. In public opinion, this is a very delicate issue that has to be dealt with in political terms."[27] By contrast, in the US, the safety of any of the five growth hormones never entered the political agenda.

A related area in which the EU and the US adopted divergent policies involved BST, a hormone designed to boost milk production. The EU imposed a moratorium on its use in 1989, which was made permanent in 1999. According to an EU official, the Commission feared a "consumer backlash . . . it's not easy to explain to consumers that everything is all right when you are injecting drugs into cows."[28] By contrast, notwithstanding a determined effort by consumer groups, and some small milk producers, BST was approved for use the US in 1993.[29] Similarly, in 1989, the EU banned the use of most antibiotics in animal feed

and in 2001 announced plans to ban all use of antibiotics as growth-promoters by 2006. No comparable restrictions have been imposed in the US.

American regulations governing food irradiation also are more permissive than those adopted by the EU in 1997. While Britain banned the feeding of meat and bone meal to cattle in 1988 – a decision adopted by the EU in 1994 - America did not impose a comparable ban until 1997. And while the EU banned the use of mammal based proteins (farines) for all animals in 2002, the US continues to permit their use in feed for farm animals other than cattle.[30]

The EU has adopted a much more extensive array of animal protection measures than the US, including for example, banning the use of leg-hold traps for capturing wild animals in 1991. In contrast, the US only adopted a partial ban following pressures from the EU in 1997.[31] The EU issued standards in 1999 for cages for battery hens and for the treatment of animals in transit. Such rules remain non-existent in the US.

The regulation of genetically modified (GM) foods and seeds in Europe and America provides a striking illustration of the pattern of recent European and American approaches to consumer and environmental regulation.[32] American regulatory officials have worked cooperatively with industry to facilitate the commercial development of this new technology.[33] There has been relatively little public participation in the regulatory process and only intermittent public scrutiny of regulatory decisions. By contrast, the European regulatory process has been highly politicized and contentious, with both the public and non-governmental organizations enjoying considerable access and influence. In marked contrast to the US, agricultural biotechnology firms in Europe have found themselves on the political defensive and have experienced a number of major political and economic defeats.

The US initially chose to regulate both GM foods and seeds under existing laws, while EU legislation established a distinctive and complex set of new regulatory requirements that apply only to this new agricultural technology. However, when EU standards for the commercial authorization of agricultural biotechnology were first issued in 1990 they did not differ substantially from those of the US. But after opposition to GM seeds and foods surfaced in Europe in the mid 1990s, European regulatory policies became increasingly restrictive. To date, while the EU has issued eighteen licenses for biotechnology products, including nine GM crops,[34] the US Department of Agriculture has approved fifty [35] and the EPA has approved eight.[36] Nearly three-quarters of the world's GM crop acreage is in the US; hardly any is in Europe. The EU and a number of Member States have enacted strict labeling requirements, while the US only requires that GM products be labeled if they differ from their non-GM counterparts. As of August 2002, the EU had not approved any new seed strains for nearly four years while the marketing of new food products under the Novel Foods Regulation (1997) has been effectively halted. Moreover, four Member States continue to refuse to authorize the planting of GM crops that have been approved by Brussels. Foods grown from genetically modified seeds are found infrequently in European stores, largely because of EU labelling requirements, while their use is pervasive in the US, where they are not specially labelled.

Nor are recent cases of more stringent or innovative European consumer and environmental regulations confined to food safety or agriculture. While public or quasi-public eco-labelling schemes spread from Germany and Sweden to much of Europe during the second half of the 1980s and were adopted by the EU in 1992, they continue to play little role in the United States.[37] In 1994, both inspired and pressured by policies previously

adopted by Germany and Denmark, the EU established ambitious recycling targets for glass, paper, plastics and aluminium.[38] In the US there are no federal regulations governing packaging wastes; recycling requirements remain governed by local laws, which are typically less stringent and comprehensive than the 1994 EU directive.

In 2000, the EU approved an automobile recycling regulation, which, in addition to providing for the collection of vehicles at the end of their useful life, requires carmakers to recycle or reuse 80% of car weight by 2006 and 85% by 2015. It also bans the use of heavy metals such as lead, mercury and cadmium as of 2003.[39] The EU is in the final stages of approving a Directive making manufacturers responsible for the "life-cycle" of all electronic products. This Directive mandates both collection and re-use standards for ten categories of products including all household appliances and telecommunications equipment. A related directive phases out and ultimately prohibits the use of heavy metals such as lead, mercury and cadmium in electronic products and batteries in order to promote recycling and reduce the toxicity of landfills. Neither regulation is on the national political agenda in the United States, and there have only a few policy initiatives at the state level.

In 1999, the European Commission banned the use of phthalate softeners in soft toys. It acted in part as a response to a determined Greenpeace campaign claiming that the chemical was both a carcinogen and a potential distorter of gender characteristics. This issue has been less salient in the US, where companies have only been advised to restrict their use.[40] The 1990 US Clean Air Act Amendments did continue the pattern of more stringent American automotive emission standards, though in the case of heavy duty vehicles, EU standards adopted in 1998 are now more stringent than those of the US. [41]

The EU has also replaced the leadership role of the United States in addressing global environmental problems. Through the 1980s, most major international environmental agreements—most notably the London Convention on Dumping at Sea, (1972), the Conventional on International Trade in Endangered Fauna and Flora (1973), and the Montreal Protocol (1987), which phased out the use of CFCs to protect the ozone layer — were both initiated and strongly supported by the United States, and subsequently ratified by either individual European countries or the EU. "Since the early 1990s, however, effective US international environmental policy leadership has lapsed." [42] By contrast, by 1994 the Basel Convention on Hazardous Wastes (1989) had been ratified by every EU Member State but has yet to be ratified by the US. Both the Convention on Biological Diversity (1992) and the Biosafety Protocol (2000) were signed by the EU, but not by the US.

The EU, as well as each of the Member States, has ratified the Kyoto Protocol, an international treaty to reduce emissions of greenhouse gases, and a number of European nations have established policies to reduce carbon emissions. The US refused to ratify the1997 Kyoto Protocol, was not a party to the 2001 Bonn agreement, and there are no federal controls on carbon emissions. Nor are any likely in the foreseeable future.

The change in the relationship between European and American consumer and environmental standards can also be seen in the pattern of trade disputes between the EU and the US.[43] Earlier trans-Atlantic trade disputes typically involved complaints by the EU or its Member States about the American use of regulatory standards as non-tariff barriers. Thus complaints were filed about American automotive fuel economy standards (adopted in 1975), Superfund taxes (adopted in 1986), and a ban on tuna imports to protect dolphins, (adopted in 1990). But for complaints based on policies of more recent origin, it is the US which has

challenged European regulations as non-tariff barriers. With the exception of the 1985 beef hormone ban, the European policies about which the US have been enacted since 1990. These include the EU's leg-trap ban (1991), eco-labelling standards (1992), and most importantly, restrictions on the sale and labelling of foods grown from GM seeds (1990, 1997 – through present).

Another important indicator of the extent to which the US and Europe have "traded places" has to do with the transatlantic direction of regulatory emulation. During the 1970s and 80s, the European environmental agenda was strongly influenced by the US. Thus throughout the debates in Europe during this period over automotive emission standards, American standards often served as a benchmark, with environmentalists and their supporters pressuring the national governments and the EU to adopt them. Indeed, for both Sweden and the EU, the existence of more stringent American standards actually facilitated the strengthening of European standards; since global automobile manufactures were now producing less polluting cars for the American market, it made both economic and environmental sense to require these firms to market similar vehicles in Europe.[44] As a Swedish panel noted: "the only realistic solution to the problem of strengthening the Swedish exhaust gas regulations seems, for the moment, to be an adaptation to the United States regulations."[45] Similarly, in both tightening control over the introduction of new chemicals, phasing out the use of CFCs, it was America that influenced European policies. It is unlikely that the Sixth Amendment which tightened EU controls over the approval of new chemicals, would have been enacted without the prior passage of TSCA, while America clearly influenced European policies on CFCs.[46]

More recently the transatlantic flow of influence has been in the opposite direction. American restrictions on leg-traps and its ban on animal feed for cattle have been influenced by developments in Europe, as have proposals to address the safety of genetically modified foods and seeds, global climate change and electronic recycling.

. CHANGES IN ERUOEPAN REGULATORY POLICIES AND INSTITUIONS

The emergence of the precautionary principle as a guide to regulatory decision-making represents an important dimension of the new European approach to risk regulation. This principle legitimates regulation when "potentially dangerous effects deriving from a phenomenon, product or process have been identified, and . . .scientific evaluation does not allow the risk to be determined with sufficient certainty [because] of the insufficiency of the data or their inconclusive or imprecise nature."[47] Originally developed in Germany during the 1970s and 80s, it was incorporated in the 1993 Treaty of the European Union. Since 1994, it has been referenced in more than thirty reports and resolutions of the European Parliament.

While the precautionary principle cannot be divorced from science, since "a scientific view of the risk is an essential component of the evaluation of risk that the principle anticipates," its growing popularity in Europe reflects the perception that scientific knowledge is an inadequate guide to regulatory policy.[48] It both requires the extension of scientific knowledge and while simultaneously acknowledging "the possible intrinsic limitations of scientific knowledge in providing the appropriate information in good time."[49] The principle thus both increases public expectations of science and reflects the public's scepticism of scientific knowledge. In effect, it reduces the scientific threshold for regulatory policy-making. By mandating or precluding regulatory action, in advance of scientifically

confirmed case-effect relationships, the principle, "curtails the ability of politicians to invoke scientific uncertainty as a justification for avoiding or delaying the imposition of more stringent protection measures."[50]

While its legal significance at both the EU and national level remains unclear, the practical effect of the precautionary principle has frequently been to permit, or even mandate, the adoption of more risk-averse policies. It explicitly acknowledges the inherently political nature of regulatory decision-making by enabling policy-makers to take into account a wide variety of non-scientific factors, including public opinion and social values. As Jordan and O'Riordan observe, "The stringency with which the precautionary principle is applied depends upon and is also a useful barometer of deeper social and economic changes. Precautionary measures, for example, are most likely to be applied when public opinion is instinctively for knowledgeably risk-averse."[51]

The frequency with which the precautionary principle has been evoked in Europe among both activists and policy-makers also has an ideological dimension. It reflects not only a decline in the role of science as a guide to policy-making, but also a decrease in public confidence in the benefits of technological innovation. Frequently underlying its invocation is the assumption that modern technology poses dangers of which we are unaware and that to avoid future harm we need to introduce new technologies more cautiously. As Corrine Lepage, the former French Environment Minister writes in her co-authored book on the precautionary principle, "The precautionary principle precisely responds to the need for prudence when faced with the consequences of technological progress, whose repercussions are exponential and unknown."[52] For many environmentalists, this is precisely one of its most important attractions.

Yet somewhat paradoxically, European regulatory administration is also becoming more scientifically rigorous. At both the national and the EU levels, there is increased recognition of the need to strengthen the capacity of government agencies to conduct risk assessments and to improve the quality of scientific information available to decision-makers. An important factor underlying this development is an increase in judicial review of regulatory decisions at both the European and international levels.[53] Just as American regulatory agencies engaged in more formal risk assessment in order to defend their decisions in federal court from challenges by both public interest groups and industry, so Europe's national authorities and the EU are undertaking similar steps in order to defend their decisions before the European Court of Justice (ECJ) and World Trade Organization dispute panels.

European regulatory institutions have also changed. In particular, to improve the quality of regulatory decision-making, risk assessment is increasingly being separated from risk management. The former is the advice and information scientists provide to policy-makers; the latter is what policy-makers decide. This separation has been institutionalized at the EU level by the establishment of quasi-independent regulatory agencies such as the new food safety agency that will perform risk assessments, with the decision being made by the Commission. Similar models have been adopted for food safety agencies in France, Germany and Britain. This separation has a number of purposes. Most obviously, it is designed to prevent "regulatory capture" by making regulatory policy-making more transparent: when risk assessments are made public, the public can determine the extent to which political officials are accepting or ignoring the relevant scientific advice. Secondly, it enables policy-makers to take into account considerations beyond science in making regulatory decisions,

such as public attitudes. Thirdly, it protects the integrity of the risk assessors since their only role is to provide scientific information to policy-makers. But perhaps most importantly, it makes policy-makers more politically accountable for regulatory policy-making: if irreversible harm results from their decision or non-decision, it is now clearer whom to blame.

EXPLAINING THE NEW EUROPEAN REGULATORY REGIME

What accounts for these changes in European regulatory policies and institutions? Explaining a complex set of developments over a period of nearly two decades presents a difficult analytical challenge. However, three sets of inter-related factors appear to have contributed to these institutional and policy shifts. They are: a series of regulatory failures and crises; broader citizen support for more risk-averse regulatory policies within Europe; and the growth of the regulatory competence of the EU. The former two factors have affected policies at both the national and EU levels; the latter has affected regulatory policies at the European level. Each of these factors is discussed below.

Regulatory Failures and Crises

The most important factor contributing to the increased stringency of health, safety and environmental regulation in Europe has been a series of regulatory failures and crises that placed new regulatory issues on the political agenda and pressured policy-makers to adopt more risk averse or precautionary policies. 1986 witnessed both the nuclear accident at Chernobyl and the Sandoz chemical fire on the Rhine, both of which had significant trans-border impacts as well as important health and environmental consequences. The Washington Post observed in December, 1988: "Dead seals in the North Sea, a chemical fire on the Loire, killer algae off the coast of Sweden, contaminated drinking water in Cornwall.

A drumbeat of emergencies has intensified the environmental debate this year in Europe, where public concern about pollution has never been higher."[54] According to Elizabeth Bomberg,

> These disasters made an impact. In 1992, the protection of the environment and the fight against pollution had become an 'immediate and urgent problem' in the view of 85% of EU citizens. . . . Eurobarometer surveys in 1989 and the early 1990s registered up to 91% of EU citizens expressing support for a common European policy for protecting the environment. . . . Questions on the environment evoked stronger and more positive support for unified EU action than did questions concerning any other area of policy.[55]

During the latter half of the 1990s, Europeans experienced a second wave of crises, this time involving food safety. The most important of these was mad cow disease.[56] When BSE (bovine spongiform encephalopathy) was first detected in cattle in the UK in 1982, the European Commission accepted assurances from the British Ministry of Agriculture that it posed no danger to humans. Subsequently, Britain was forced to notify other EU Member States of a potential food safety problem, especially after scientific studies showed the disease was transmittable to mice. Following a massive outbreak of BSE in 1989-1990, the European Community banned human consumption of meat from the affected cattle. Although concern among the British public over health effects of eating meat of BSE-diagnosed cattle continued to grow throughout the 1990s, the British government denied the legitimacy of the public's concerns. Its position was accepted by the European Commission, which placed only limited restrictions on the sale of British beef.

The crisis over BSE broke in 1996 in the UK, when the British Government announced that ten cases of Creutzfeld-Jakob disease had been diagnosed in humans, and that these cases were likely related to exposure to the cattle disease BSE. The Commission responded by issuing a global ban on the export of British beef and widespread slaughter of cattle in Britain, and to a lesser extent, in other Member States. While both the Commission and its scientific advisory body subsequently certified British beef as safe for human consumption, the EU's belated failure to recognize its health hazards severely undermined public trust in EU food safety regulations and the scientific expertise on which they were based. It also led to the deaths of approximately 100 people, primarily in the UK.

The regulatory failure associated with BSE significantly affected the attitude of the European public toward GM foods.[57] This was especially true in Britain, where unfavourable press coverage of agro biotechnology increased substantially following the BSE crisis: between 1996 and 1998 the percentage of those strongly opposing GM foods rose from 29 percent to 40 percent. But its ramifications were felt throughout the EU. The Financial Times noted, "BSE has made people in Europe very sensitive to new technologies in the food supply industry, and very wary of scientists and government attempts to reassure them."[58] According to an official from Monsanto, "That wound [about the British Government's long insistence that there were no human health risks from mad cow disease] still has not healed. You have this low burn level of anxiety about food safety, and in the midst of all this you have a product introduction of genetically modified soybeans."[59] A food sociologist observed, "BSE was a watershed for the food industry in this country. For the first time people realized that merely attempting to ensure a culinary end product was safe to

eat was not a good enough approach. We had to look at the entire process by which food is produced."[60]

As one British scholar put it, "the BSE scandal represents the biggest failure in UK public policy since the 1956 Suez Crisis."[61] It also emerged on the heels of a long line of food scares in the United Kingdom, including an outbreak of e-coli in Scotland, salmonella in eggs, and listeria. In 1999, a major public health scare emerged over dioxin contamination of food products produced in Belgium, leading to both the fall of the Belgium Government and the removal of all Belgium food products from stores throughout Europe, as well as a crisis involving the safety of Coca-Cola, though the later turned out to have no scientific basis.[62] As a senior European official noted in 2000, "the past years have seen a big dip in consumer confidence in the safety of the food supply and, as a consequence, in Member State authorities tasked with the job of overseeing the food industry. There seems to be an endless supply of (food scares.)"[63]

The regulatory failure associated with mad-cow disease also had important political consequences in Europe. It dramatically exposed the gap between the single market – which exposes all European consumers to goods produced anywhere within the EU – and the inability of European institutions to assure the safety of the products sold within that market. At the EU level it led to the decision in December 2000 to create a European food safety agency. It also called into question the functioning of the "comitology" system, the EU's term for the structure of advisory bodies that it relies on for expert advice. For the European Commission had relied on the advice of the Scientific Veterinary Committee which was chaired by a British scientist and which primarily reflected the thinking of the British Ministry of Agriculture, Fisheries and Food – advice which subsequently proved flawed.[64]

Many of the changes in European regulatory administration reflect the effort to establish institutional arrangements that will reduce the future likelihood of "regulatory capture."[65] The mad-cow crisis also affected regulatory institutions and policy making at the national level, leading for example, to the creation of a consumer protection "super ministry" in Germany and the establishment of national food safety agencies in both Great Britain and France.

There have also been regulatory failures in Europe in other policy areas. During the early 1990s, the French Government was widely criticized for responding too slowly to the public health and workplace dangers associated with use of asbestos.[66] In spite of overwhelming evidence that asbestos constituted a serious health hazard, killing approximately 2,000 people a year according to a French government study, its manufacturing, importation and sale was not severely restricted until 1996, nearly two decades after the United States began to take regulatory action and after it had been banned in seven other European countries. Another, far more consequential scandal was the apparent failure of French governmental officials and doctors to protect haemophiliacs from blood contaminated with the AIDS virus.[67] This issue, which became highly visible during the early 1990s, led to the resignation and criminal indictment of three senior government officials, including the Prime Minister. Three senior medical officials were convicted of criminal negligence and fraud and were sentenced to prison. Officials were accused of failing to adequately screen blood donors, delaying the approval of an American technology to test blood in order to benefit a French institute, and knowingly allowing contaminated blood to be given to patients. The deaths of more 300 haemophiliacs were linked to these decisions. While haemophiliacs were given contaminated blood in several countries, their

rate of HIV inflection was significantly higher in France. As in the case of asbestos, the French government's regulatory failure was widely attributed to its placing economic interests over public health.

"Le sang contaminé" (contaminated blood) scandal in France, like mad-cow disease in the UK, had significant domestic repercussions. It shocked French public opinion, calling into question the public's historic high regard for the competence of the public sector in a highly paternalistic state. It also continues to haunt French politicians, making them highly risk-averse, particularly with respect to potential threats to public health. Significantly, ministers have accepted nearly every recommendation of *L'Agence Francaise de Securité Sanitaire des Aliments*, France's recently established food safety agency, which has statutory responsibility for reviewing all government food safety policies – lest they be accused of (again) endangering public health, and possibly face legal penalties. The French decision to maintain its ban on imports of British beef, made in defiance of the EU and against the advice of the Ministry of Agriculture, was taken in response to the recommendations of the AFSSA. The haste with which the French government responded to an increase in the number of BSE cases among French cattle in November 2000 by banning the feeding of fairines to all animals – without even waiting for a scientific assessment by AFSSA – reflects the continuing impact of the contaminated blood scandal on French health and safety policies, as do French policies toward GMOs.[68]

Regulatory failures or crises are not by themselves politically determinative. After all, Europe had experienced regulatory failures prior to the mid 1980s. But the policy impact of the regulatory failures and crises during the second half of the 1980s and the 90s has been broader and deeper. Their cumulative impact has been to increase the public's sense of

vulnerability to and anxiety about the risks associated with modern society and this in turn has affected the political context in which regulatory policies have been made. As the Washington Post observed in the spring of 2001:

> . . . . wealthy, well-educated Europe is regularly swept by frightening reports of new dangers said to be inherent in contemporary life . . .Americans have health concerns, too, but not on this scale. The year is two months old and already in 2001 public opinion and public officials have been rattled by alarms over risks – proven and not – from genetically modified corn, hormone feed beef and pork, 'mad-cow' disease, a widely used measles vaccine, narrow airline seats said to cause blood clots and cellular phones said to cause brain damage. [69]

Or, as the German sociologist Ulrich Beck put it in his book World Risk Society published in 1999, we now live in a world which "imposes on each of us the burden of making crucial decisions which may affect our very survival without any proper foundation in knowledge." [70]

Political Developments

A second, related, explanation for the change in European regulatory policies and institutions has to do with political developments within individual European countries. During much of the 1980s, support for strict environmental, health and safety regulations in Europe was geographically polarized. Often, Germany, the Netherlands and Denmark favoured stricter and more risk-averse regulations, while Britain, France and Italy opposed them[71]. Much of EU environmental policy-making thus represented a struggle between the EUs three "green" Member States, where constituencies representing civic interests enjoyed considerable public support and influence, (the Green Party has played an important role in

Germany since 1983), and Britain, France and Italy, where they did not. But while Germany, the Netherlands and Denmark continue to play a role as environmental "pioneers," in the EU, (subsequently joined in 1995 by Sweden, Austria and Finland,) strong public interest and support for stricter health and environmental standards has spread south and west within Europe. This change has been particularly significant in Britain and France, which are no longer regulatory "laggards" within Europe.

During the 1990s, British public opinion became "greener" and Britain's green lobbies become more influential. This in turn has affected a number of British policies. In 1990, as part of a broader re-examination of its environmental policies, Britain formally adopted the precautionary principle as one of the "basic aims and principles supporting sustainable development."[72] The application of this principle has affected a number of British regulatory policies, including the dumping of sewer sludge in the North Sea and domestic water pollution standards. It has also strained Britain's consultative regulatory style, challenging the ability of regulators to justify lax controls or regulatory delays on the grounds that they have inadequate knowledge of harm and forcing them to take preventive action in advance of conclusive scientific opinion.

The creation of the National Rivers Authority in 1989 and the Environment Act of 1995 allowed British enforcement agencies to adopt a more arms-length relationship with operations and this new relationship has fostered a tough approach toward enforcement. The Environment Act of 1995 incorporated sustainable development into British law and in 2000, the Prime Minister established the UK Sustainable Development Commission. This political shift within Britain has also changed its stance toward EU policymaking. For example, Britain played a leadership role in encouraging the EU to adopt a system of integrated

pollution control and it was the strongest advocate of the EU's leg-trap ban. In sum, "Britain has clearly emerged from the more minimalist and hostile stance of the early 1980s to emerge as a medium-positioned state in the league of environmental leaders and laggards." [73]

Within France a series of regulatory failures at the national level during the early 1990s, most notably the above mentioned scandals associated with contaminated blood and asbestos, has increased citizen support for risk averse regulatory policies. Corinne Lepage, the French Environment Minister under the Juppé Government, was a leading public critic of GMOs, acting in opposition to the Ministry of Agriculture. In 1996 the French government formally adopted the precautionary principle and three years later it established a quasi-independent food safety agency. In 1997, following the election of Prime Minster Jospin, the Green Party joined the French Government for the first time and the Party's president, Dominique Voynet, became Environment Minister. In 2000, France became the second European nation to ban the use of meat and bone meal (farines) for all farm animals to prevent further outbreaks of mad-cow disease, a decision based on the precautionary principle since there was no evidence that they posed a danger to either public or animal health. [74] And French public opinion and public policy has been among the most hostile in Europe to GMOs. [75]

Moreover, Italy, responding to public health scares, was among the first nations to pressure for the beef hormone ban. More recently, the health hazards of electromagnetic transmissions have emerged as an important political issue, prompting a large-scale review of government regulatory policies.

Prior to the 2001 elections, the Green Party was represented in Italy's governing coalition. In 1999, the Green Party joined the government of Belgium for the first time.

Thus, in 1999 the Green Party was represented in four European governments: Germany, where it has historically been strong, and France, Italy and Belgium, where it previously was not. Moreover the party had nearly 150 members in 11 of the 15 EU national legislatures. [76] In sum, while substantial national differences in regulatory priorities persist within the EU, political support for more stringent protective regulations has become more widespread in Europe.

The European Union

In addition to a series of regulatory failures, and related broadening and deepening of public support for more stringent regulatory polices within Europe, the emergence of the EU as a more important source of regulatory policy-making has also affected the stringency and scope of European regulatory policies. It is significant that the changes in European regulatory policies and politics described in this article began around the time of the enactment of the Single European Act in 1987. This amendment to the Treaty of Rome, by enabling directives to be enacted by a system of qualified majority voting instead of unanimity, significantly accelerated the EU's regulatory competence. The EU has played a critical role in changing the dynamics of European regulatory policies: each subsequent revision of the Treaty of Rome has accorded civic interests greater weight in the policy process. Combined with growing public support for risk averse policies, these revisions have had important policy impacts.

The SEA gave environmental policy a treaty basis for the first time, specifying that preventive action should be taken whenever possible and requiring that harmonized standards take as a base "a high level of protection." The Treaty on the European Union (1993) made precaution a guiding principle of EU environmental policy: "Community policy shall aim at

a high level of protection taking into account the diversity of situations in the various regions of the Community. It shall be based on the precautionary principle and on the principles that preventive action should be taken . . . "[77] The Treaty of Amsterdam (1997) called upon the Council and the Parliament to achieve high levels of health, safety, environmental and consumer protection in promulgating single market legislation and Article 153 explicitly defined consumer policy and health protection as "rights." It also extended the precautionary principle to consumer protection.

As Majone has noted, the EU is primarily a regulatory state: issuing rules is its most important vehicle for shaping public policy in Europe.[78] Notwithstanding frequent criticisms of the EU's "democratic deficit," its institutions have played an important role in strengthening the representation of civic or diffused interests. The influence of consumer and environmental pressure groups on the Commission remains limited and they typically enjoy less access than representatives of business.[79] There however are exceptions: the European Consumers Union did lead a successful campaign calling for the EU to ban beef hormones, while Greenpeace worked with Green Parties to mobilize public and political opposition against the approval of GMOs in Europe. In addition, the "European Court of Justice has often played a crucial role in promoting civic interests" and has been repeatedly willing "to be influence by consumer and civic concerns in reaching its judgments."[80]

EU treaties have also steadily expanded the role of the European Parliament, a body in which consumer and environmental interests have been relatively influential, in shaping European legislation.[81] The SEA granted Parliament legislative power under "cooperation" procedures, and these were expanded by the Maastricht Treaty which established "co-decision" procedures, thus giving the Parliament and the European Council co-responsibility

for writing legislation. The Parliament's purview over environmental legislation was expanded by the Amsterdam Treaty. "Despite the limitations of co-decision, its use as the legislative procedure for environmental measures considerably strengthens the Parliament's role in the adoption of new environmental legislation."[82] The Green Party has been an important political presence in the European Parliament since 1989, when it captured thirty-seven seats; following the June 1999 election it again had thirty seven members. The Parliament has often been an effective source of pressure on the Council for the adoption of more stringent regulations.

The EU's structure has also magnified the influence of the "greener" member states. As Heritier argues, an important key to understanding the dynamics of EU policy-making lies in the logic of diversity, "which initiates a spontaneous acceleration of policy-making by regulatory competition and mutual learning."[83] Formally, EU policy is highly centralized: directives are approved in Brussels and then the Member States are obligated to transpose them into national law and then enforce them. But in fact EU policy-making is highly fragmented. If supporters of more stringent regulatory standards can persuade decision-makers in one or more Member States that their ideas have merit, "these policy-makers will carry this point of view into the EU process."[84] Accordingly, "the significant participation of the member states means that the various ideas that circulate at the national level may in turn diffuse into the EU level."[85] This is also the case when Member States unilaterally enact more stringent regulatory standards – a dynamic that has often contributed to a "trend toward higher and tougher standards by Brussels." [86]

The EU's federal structure, along with its separation of powers among the Commission, the Council, the European Parliament and the ECJ has provided representatives

of civic interests with multiple points of access. An entrepreneurial coalition favouring more stringent regulatory standards "needs ready access to only one part of the EU system (as long as that structural position provides a visible and vocal platform for the coalition's cause.) Because EU institutions encompass such a wide array of interests, finding one sympathetic access point is relatively easy." [87] A fragmented political system also provides opponents of policy change with multiple veto points. The EU's constitutional structure does not automatically privilege civic interests any more than does the fragmented American system. But, as the American experience of the 1970s illustrates, the multiple points of access offered by a fragmented political system, when combined with a highly mobilized and risk averse public, can lead to a significantly strengthening and broadening of regulatory standards.

Finally, the strengthening of regulatory standards at the European level has also been affected by the dynamics of the single market. An important consequence of the single market has been to make European consumers increasingly dependent on, and thus vulnerable to, the regulatory policies of all fifteen Member States as well as Brussels. This has increased political pressures on the EU to promulgate stricter European-wide rules since regulatory failure in any Member State endangers the single market as a whole. In addition, protecting the health and safety of Europeans as well as the European environment has become critical to the EU's legitimacy and its claim to represent the broader interests and concerns of Europeans. As Breyer and Heyvaert suggest,

> (Regulatory) Centralization may be the expression of a growing feeling of unity among the citizens of Europe, of a growing desire to protect the common European heritage across national boundaries, and of a rising expectation among Europeans

that, when they move from one country to another, they will benefit from the same high level of health and environmental protection. [88]

THE EUROPEAN PRESENT AND THE AMERICAN PAST

There are a number of similarities between regulatory policies and politics in Europe since the mid 1980s and those in the US from the early 1960s through around 1990. During these three decades, an influential segment of American elite and public opinion became more risk-averse, often focusing on the dangers of new technologies rather than their potential benefits. One British journalist wrote in 1971: "We saw the Americans thrashing around from one pollution scare to the next, and we were mildly amused. One moment it was cyclamates, mercury the next, then ozone, lead, cadmium – over there they seemed set on working their way in a random manner through the whole periodic table."[89] A British social scientist observed in 1979, "Americans seem to have taken an excessively strict interpretation of risk, reducing 'reasonable risk' practically to 'zero risk."[90] Douglas and Wildavsky wrote in Risk and Culture published in 1982:

> Try to read a newspaper or news magazine . . . ; on any day some alarm bells will be ringing. What are Americans afraid of? Nothing much, really except the food they eat, the water they drink, the air they breathe . . . . In the amazingly short space of fifteen to twenty years, confidence about the physical world has turned into doubt. Once the source of safety, science and technology has become the source of risk. [91]

The argument in the US against public funding of a supersonic passenger airplane is similar to that made by many Europeans against regulatory approval for genetically modified agricultural products a nearly quarter-century later: in both cases, a significant segment of the

public saw no benefits associated with the proposed new technology, only increased environmental and health risks. The political salience of the issue of ozone depletion in the US during the 1970s parallels the high level of European concern over global climate change during the 1990s. The political setbacks experienced by the American chemical and automotive industries during the 1970s and 1980s are similar to those experienced by agricultural biotechnology firms in Europe since the 1990s.

During the US in the 1970s and in the EU in the 1990s, consumer and environmental protection became defined as "rights," though the role of the courts in defining and asserting these "rights" has remained much more important in the US.[92] Thus in both America in the 1970s and 1980s and Europe since the mid 1980s, public preferences and concerns have played an important role in shaping both the regulatory agenda and specific regulatory policies. Significantly, a number of American regulatory policies implemented in the 1970s and 1980s and European policies since the mid 1980s have been similarly criticized for being too risk averse and rooted more in public fears than scientific evidence.[93] In 1997, responding to the European demands for the separation of genetically-modified and non-GM foods, US Secretary of Agriculture Dan Glickman declared that "test after rigorous scientific test has proven these products to be safe. Sound science must trump passion."[94] But during the 1970s and 80s, many Americans were as sceptical as contemporary Europeans of relying on "sound science" to guide regulatory policy-making.[95]

The United States, like Europe, also experienced a series of widely publicized regulatory failures whose cumulative effect was to increase public support for more effective and stringent regulation. The thalidomide scandal (1962), Rachael Carson's Silent Spring (1962), Ralph Nader's Unsafe at Any Speed (1965), Love Canal (1977) and Three Mile

Island (1979) were the American counterparts to Europe's Chernobyl, the contamination of the Rhine, mad-cow disease, dioxin in the food supply, and contaminated blood. The significant membership expansion and increased political influence of public interest lobbies in the United States during the 1970s parallels the increased influence of representatives of civic interests, including Green Parties, in Europe during the 1980s and 1990s. And the centralization of regulatory policy-making in Brussels parallels the federalization of regulatory policy-making in the US. On both sides of the Atlantic institutional changes made regulatory policy-making more exposed to public scrutiny and pressure, which in turn strengthened the influence of pro-regulation constituencies and reduced the ability of business to dictate regulatory outcomes.[96] Significantly, the fragmented constitutional structure of the EU, with its separation of powers and federal division of responsibilities more closely resembles the US than it does it does any Member State.

What Happened in America?

This raises a critical question: what happened to American regulatory politics and policies after 1990? After all, EU regulations could have become more stringent and comprehensive, while the US also continued to enact relatively stringent and comprehensive regulations, thus producing policy convergence. Or each could have adopted more stringent and innovative policies in different areas, with the result that on balance, the consumer and environmental standards adopted since 1985 or 1990 would have been no more or less stringent or innovative on either side of the Atlantic. But neither has occurred. Why?

Before addressing this question, it is important to note that the relatively stringent and comprehensive statues enacted in the US through 1990 have not been repealed. Indeed, some highly risk adverse regulations continue to be issued pursuant to the these laws including for

example, the 1997 ozone national ambient air standards promulgated in the closing months of the Clinton Administration. What has changed is the rate at which significant new regulatory laws have been adapted. For example, during the eight years of the Clinton Administration (1992 – 2000), and the first two years of the second Bush Administration (2001- 2003) Congress passed only five environmental or consumer protection laws: the Food Quality Protection Act, the Omnibus Water Act, the Food Quality Protection Act and the Safe Drinking Water Act Amendments. Of these, only the Food Quality Protection Act, which adopted a new approach to regulating pesticides, can be considered a significant regulatory policy innovation.[97]

By contrast, notwithstanding the deregulatory initiatives of the Reagan Administration (1981- 1988), the scope of environmental regulation continued to expand while seven consumer and environmental statues were enacted during the four years of the first Bush Administration (1989 – 1992). The last major legislative expansion of environmental regulation in the US took place in 1990. That year saw the enactment of three statues: the Oil Pollution Act of 1990, the Pollution Prevention Act of 1990 and the Clean Air Act Amendments of 1990. The latter was particularly significant: it established a cap and trade system to reduce emission of sulphur dioxides and nitrogen oxides, mandated stricter emission standards for motor vehicles and mandated cleaner fuels, required emission limits to be set for all major sources of toxic or hazardous air pollutants, listed 189 chemicals to be regulated, prohibited the use of CFCs, and phased out other ozone depleting chemicals.

It is primarily with respect to the environmental agenda that has emerged since 1990 that America has become a regulatory laggard. Here the contrast with the EU is particularly striking. It is not that American federal standards regarding eco-labelling, packaging wastes,

automobile and electronic recycling and carbon emissions are less stringent than those of the EU; in each of these areas American federal regulation is non-existent. And in the critical case of GMOs, European standards are notably more stringent than in the US. Why, then did the American hare start moving like a tortoise?

The slowdown in the rate of new regulatory policy initiatives in the US during the 1990s stems in large measure from the absence of major regulatory failures in the United States. (The last major regulatory failure in the US was the 1989 Exxon Valdez Oil Spill, which however affected only a narrow range of policies). There have been periodic consumer safety and environmental crises since then, but unlike in Europe their policy impact has been limited. In part due to the absence of such failures, Americans are now more trusting of government regulation than do Europeans. Thus while 90 % of Americans believe the USDA's statements on biotechnology, only 12% of Europeans trust their national regulators. [98] The degree of public anxiety about the pervasiveness of threats to public health, safety and the environment coupled with a lack of faith in the capacity of government to adequately protect public health and environmental quality from business, has diminished in the United States over the last ten to fifteen years, at the same time that it increased in much of Europe. According to one polling firm, America's faith in major corporations rose in the 1980s and 1990s, helping to "produce a politics that has been reluctant to impose new regulatory burdens on business that might diminish corporate profits." [99] This may partially explain the degree of public acceptance of GMOs – a technology which if it had been introduced into the United States two decades earlier may well have received a more sceptical public reception.

In addition, the Republican Party's control of one or more Houses of Congress since 1994, combined with the growing conservatism of Republican legislators, have significantly enhanced the influence of business over regulatory policies and the policy agenda. Moreover business itself has become more politically active and effective, both benefiting and contributing to public suspicions of "big government." Business pressures played a critical role in shaping American opposition to both the Biosafety and Kyoto Protocols.[100] American NGO's spent the six years after 1994 fighting to prevent the rolling back of existing statues. While this effort by and large succeeded, it came at the cost of lost momentum to advance new regulatory goals. The election of President Bush in 2000 continued this pattern: in 2001 and 2002 the efforts of NGOs primarily focused on maintaining the regulatory status quo rather than expanding the scope of consumer or environmental regulation.

Conclusion

In one of the few recent systematic efforts to compare a wide range of American and European regulatory standards, Weiner and Rogers argue that the notion "of a precautionary Europe and a risky America (or a general flip-flop in relative precaution across the Atlantic) is unpersuasive."[101] They cite for example, the American decisions to ban imports of British beef made in 1989 and 1991 and the 1999 decision of the Food and Drug Administration to reject blood from any donor who had spent more than six months in the UK between 1980 and 1996. By contrast, they note that the EU lifted its ban on British beef between 1998 and 1990 and has imposed no restrictions on blood donors based of their prior residency in the UK.

It is true that on balance Europe is not more precautionary than the US, since virtually all the relatively risk-averse statues enacted by the US before 1991 are still in effect. Nor is it the case that all European regulations issued since 1990 are more stringent or comprehensive than in America. *It is rather that the most powerful explanation for the relative stringency or innovativeness of consumer and environmental regulations in the US and Europe is the time frame during which they were enacted*. For the most important consumer and environmental regulations enacted prior to the mid-1980s in which American and European policies were divergent, American policies were more likely to either more stringent or innovative. These include automobile emission standards, chemical approval and renewal policies, regulations governing food additives, drug approval policies and restrictions on CFCs. For regulations which emerged on the regulatory agenda after 1990, European regulations are more likely to fall into this category. These include, most importantly, the approval and labelling of

genetically modified foods and seeds, the recycling of packaging, automobiles and electronic products, restrictions on international trade in hazardous wastes, and cutbacks on carbon emissions. Policies enacted in the interim were mixed. Some were more stringent in the US, such as automobile emission standards, while others were more stringent in Europe, such as growth hormones for cattle.

In an essay published in 1990, entitled "American Exceptionalism and the Political Economy of Risk," Jasanoff writes that while "the US process for making risk decisions impressed all observers as costly, confrontational . . . and unusually open to participation," in Europe, "policy decisions about risk, remained, as before, the preserve of experienced bureaucrats and their established advisory networks."[102] Her generalization about European and American policy styles and policy consequences which flow from them are echoed in virtually every comparative regulatory study published during the 1970s and 80s.[103] This generalization must now be re-examined, a process which Jasanoff herself begins at the end of her essay where she notes that "U.S. exceptionalism . . . is beginning to show signs of impermanence."[104] Over a decade later, it is now much clearer that the "American approach" to health, safety and environmental regulation is no longer as distinctive as it appeared to students of comparative politics during the 1970s and 80s.[105]

However some contemporary depictions of trans-Atlantic regulatory differences also need to be examined critically. For example, it is not the case that "deep-rooted cultural" differences" drive European and American policies on global climate change due to Americans being "more individualistic, more concerned about their lifestyles than about the environment, and more ideologically averse to regulation."[106] The issue of global climate change has been more politically salient in Europe than in the US for more than a decade,

and, unlike in the US, European policy-makers have supported policies to reduce carbon emissions. But this hardly can reflect "deep-rooted cultural" differences between Europe and the US, since only thirty years ago, America enacted a more risk averse, innovative and comprehensive range of environmental and consumer regulations did any European country or the EU.

We are now in a better position to generalize about the dynamics of regulatory policy-making on both sides of the Atlantic. Consumer and environmental regulations are likely to become more innovative, comprehensive and risk averse as a response to a widespread public perception of regulatory failures. These regulatory failures have a spill-over effect: they both make public opinion more sensitive to the risks associated with new technologies and undermine public confidence in existing regulatory institutions. They also increase the political influence of political constituencies who favour more stringent regulatory policies and reduce the influence of business. Two policy consequences flow from this dynamic. First, policy-makers become more likely to adopt more comprehensive and risk averse policies, even when these policies adversely affect the financial interests of important industries. Secondly, regulatory policy-making itself changes: it becomes more open, more transparent and more accessible to non-industry influences.

The American experience suggests that this policy dynamic can persist for an extended period of time. It persisted for nearly three decades in the US and the momentum for increased regulatory stringency in Europe has now lasted more than fifteen years. It however, does not last indefinably. As new procedures for making regulatory policies are established, and appear to be functioning reasonably effectively, the political salience of consumer and environmental regulation declines and public pressures for more stringent

standards diminishes. At the same time, the influence of industry on regulatory policy-making again increases as policy-makers become more responsive to arguments about the burdens rather than the benefits of regulation. The result is not a rolling back of existing standards, but rather policy gridlock. Thus even though the institutional changes that made policy-making more open and publicly accessible remain, there is a slow-down in the rate of new regulatory initiatives. This took place in the US after 1990 and will at some point occur in Europe.

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[59] Rich Weiss, "No Appetite for Gene Cuisine," Washington Post National Weekly Edition May 3, 1999. p 19.

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[63] "Back to the Future," Consumer Voice, Special Edition, 2000.

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[66] For an extended discussion of this issue, seem Francis Chateauraynaud and Didier, T. Les Sombres Precurseurs (the Dark Forerunners) (Paris: Editions De L'Ecole Des Hautes Etudes En Sciences Sociales, 1999), chapters 3 – 7.

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