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Panel 4: Trade-others

**OverREACH: The Impact of the EU's REACH Regulation on Asian Chemical Policies**

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Abstract

International trade often requires individual trading partners to examine their respective regulatory policies in relation to each other, and in some cases, to alter their regulation. Regional trade agreements (RTAs) provide one platform for such regulatory interactions, which sometimes result in positive integration, either as harmonization or mutual recognition. Alternatively, this paper focuses on the regulatory interactions fuelled by the European Union's "soft power" regarding chemical regulation. The regulatory policies of non-EU countries are influenced by European regulation, and often end up mirroring European policy. This paper attempts to analyze such a voluntary policy adaptation to Europe, based upon a case study of the EU's new regulation concerning chemicals, known as "REACH." REACH is a form of both environmental and product regulation. While REACH aims "to ensure a high level of protection of human health and the environment," it also regulates the "characteristics" of chemical products that can be introduced into the EU market. There have been concerns about how REACH would affect world chemical trading, in addition to its consistencies (or inconsistencies) with WTO law. At the same time, there is a possibility for REACH to be a model for non-EU countries in reforming their chemical policies. This paper focuses on the recent Japanese chemical law amendment, and considers its implications for other Asian countries experiencing the impact of REACH.

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## I. INTRODUCTION

This paper addresses the European Union's "soft power" in the area of safety and environmental issues.<sup>1</sup> Joseph Nye explains the phrase "soft power" as the ability that "you can get others to want what you want," and therefore, with "soft power," "you do not have to spend as much on sticks and carrots to move [others] in your direction."<sup>2</sup> He also argues that "[s]oft power arises from the attractiveness of a country's culture, political ideals, and policies." This paper focuses on how the elements of European environmental regulation "travel"<sup>3</sup> across borders among non-EU countries, and influence their policies in a way that tends to reflect ideas of European regulation. It has been said, "[l]egal ideas continuously cross the Atlantic in both directions,"<sup>4</sup> and in the past, it is true that the transatlantic environmental policy interactions between the United States (US) and the EU have dominated the scholarly discourse.<sup>5</sup> However, regulatory impacts have since been observed globally as the spill-over effects of European law reach into Asia.

This paper is interested in interactions between countries regarding regulatory policy. Among parties of regional trade agreements (RTAs), two types of positive integration, either harmonization or mutual recognition, are available as regulatory cooperation. But according to the Organisation for Economic Cooperation and Development (OECD)'s study, which compared provisions regarding regulatory barriers in selected RTAs, the most common type of cooperation has been mutual recognition of *conformity assessment results*.<sup>6</sup> Harmonization or recognition of technical regulations, on the other hand, has rarely been realized.

While efforts under RTAs have had limited success, there is another way which facilitates interactions between countries regarding regulatory policy: policies among countries become more similar by unprogrammed and voluntary policy adaptation. This is also described as the "globalization of regulation." Europe has recently contributed to the globalization of environmental regulation. The EU's soft power is sometimes referred to as "unilateral" legislative action, and it may be true that such unilateral action "put an end to all dreams of regulatory cooperation and convergence."<sup>7</sup> But there still might be some possibility for regulatory convergence since

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<sup>1</sup> Mark Shapiro, *Exposed: The Toxic Chemistry of Everyday Products and What's at Stake for American Power* (Chelsea Green Publishing, 2007) p.16 ("Political scientists call Europe's form of influence 'soft power,' exerted not through military might but through the lure of its vast market and from less tangible qualities of moral leadership.").

<sup>2</sup> Joseph S. Nye, Jr., "Soft Power and European-American Affairs," in Thomas L. Ilgen, *Hard Power, Soft Power and the Future of Transatlantic Relations* (Ashgate Publishing, 2006) p.26.

<sup>3</sup> Joanne Scott, "From Brussels with Love: The Transatlantic Travels of European Law and the Chemistry of Regulatory Attraction," (January 27, 2009). Available at SSRN: <http://ssrn.com/abstract=1333685>.

<sup>4</sup> Robert A. Kagan, "Globalization and Legal Change: The 'Americanization' of European Law?" 1 *Regulation & Governance* 99, 101 (2007).

<sup>5</sup> For example, David Vogel, "Risk Regulation in Europe and the United States," 3 *Yearbook of European environmental law* (2004) 1-42.

<sup>6</sup> Caroline Lesser, "Do Bilateral and Regional Approaches for Reducing Technical Barriers to Trade Converge towards the Multilateral Trading System?" *OECD Trade Policy Working Paper* No.58 (2007). See also, Yoshiko Naiki, "Shaping Mutual Recognition Regimes in Asia: Some Lessons from the Japan-Singapore Arrangement," 34 *Legal Issues of Economic Integration* 349-367(2007).

<sup>7</sup> Reinhard Quick, "Transatlantic Regulatory Co-operation in Chemicals—An Idealist's Dream," a conference paper of Systemic Implications of Transatlantic Regulatory Cooperation and Competition (University of Michigan, May 8-9,

governments are somehow *interdependent* in decision-making; “national governments do not operate in splendid isolation from each other.”<sup>8</sup>

The EU’s new regulation concerning chemicals, “The Registration, Evaluation and Authorisation of Chemicals (REACH),”<sup>9</sup> has been recognized as the EU’s most complex, expansive and ambitious piece of legislation. Its effects have been the subject of extensive debate both before and after entering into force in 2007, within and outside the EU. This paper aims to examine the impact of REACH on regulatory activity outside the EU, and in particular, to focus on the EU’s Asian trading partners.

REACH is both a form of environmental and product regulation. As a health and environmental law, REACH aims “to ensure a high level of protection of human health and the environment (Article 1).” In its role as a product regulation, REACH regulates “characteristics” of chemical products that can be introduced into the EU market.<sup>10</sup> Consequently, REACH affects trade, and under the WTO law, REACH is subject to the Agreement of the Technical Barriers to Trade (“TBT Agreement”).

While there have been concerns over REACH’s consistencies (or inconsistencies) with the WTO law, it is interesting to note that there is also a possibility for REACH to be a model for non-EU countries in reforming their chemical policies. This paper focuses on the latter point. In fact, a similar phenomenon has been observed in the past, for example, when the EU adopted a directive on “The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS),”<sup>11</sup> in 2003, which prohibited electrical and electronic equipment containing six banned substances from entering the EU market. China, Japan and Korea changed their policies regarding electrical and electronic equipment in response to RoHS.

What accounts for these countries’ choices to adapt their policies to mirror those of the EU? There is a range of factors attributed to the willingness of non-EU countries to adapt their chemical policies to be compatible with REACH. States may be simply motivated by self-interest in trading with the EU. Also, there may be cases where domestic stakeholders, such as consumers,

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2008) available at <[http://www.fordschool.umich.edu/news/event\\_details/reg\\_coop\\_and\\_comp\\_08/](http://www.fordschool.umich.edu/news/event_details/reg_coop_and_comp_08/)>.

<sup>8</sup> Beth Simmons, Frank Dobbin, and Geoffrey Garrett, *The Global Diffusion of Markets and Democracy* (Cambridge University Press, 2008) p.360.

<sup>9</sup> Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC[2007] *OJL*136/3 [*hereinafter*, REACH].

<sup>10</sup> In the *EC - Asbestos* Case, regulations subject to the TBT Agreement were defined as follows:

"Product characteristics" may, in our view, be prescribed or imposed with respect to products in either a positive or a negative form. That is, the document may provide, positively, that products *must possess* certain "characteristics", or the document may require, negatively, that products *must not possess* certain "characteristics". In both cases, the legal result is the same: the document "lays down" certain binding "characteristics" for products, in one case affirmatively, and in the other by negative implication.

WTO Appellate Body Report, *European Communities — Measures Affecting Asbestos and Products Containing Asbestos (EC-Asbestos case)*, WT/DS135/AB/R, adopted on April 5, 2001, para. 69.

<sup>11</sup> Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [2003] *OJL*37/19 [*hereinafter*, RoHS].

non-governmental organizations (NGOs) or corporations, may catalyze the process of policy adaptation. Such influence by non-state actors may change the norms and values of non-EU countries internally, thereby generating a state's desire to improve its ability to protect human health and the environment. In that sense, REACH may be "norm transmitting."

While some scholars have already started to analyze the transatlantic interactions between the US and the EU concerning REACH,<sup>12</sup> there has been little research into Asian countries' voluntary adoption of policies similar to European regulation.<sup>13</sup> Japan, however, is one country which has begun considering amendments to its chemical policy. Japan's main legislation concerning chemicals is "The Law on the Control of Examination and Manufacture of Chemical Substances (Kashinho)", which entered into force in 1973. This paper takes up Japan as a case study on how REACH interacts with non-EU countries' chemical policies.

What the Japanese case reveals is that in reforming its own policy, a country may borrow some – but not all – of the ideas of REACH. It is important to note that there are many variations in policy adaptation; a blanket acceptance of REACH seldom occurs. In many countries, chemical policies are already in place and that will constrain creating a completely new chemical policy mirroring REACH. Therefore, it is important to identify the extent to which REACH affects non-EU countries' chemical regulations.

This paper performs qualitative analyses of Japan's case, instead of using any empirical tests and data. Although it would be premature to claim that the case study is a proxy for investigating the mechanisms of the spread of European policy in Asia, Japan's case may serve as a basis for future comparative analyses between other Asian countries in the context of REACH. Lastly, it needs to be clarified that this paper is not based on a teleological argument that European policy should be adopted widely by non-EU countries.

The rest of the paper proceeds as follows: Section II reviews the existing literature in political science that has attempted to explain causal factors of countries' voluntary adoption of similar policies, and considers its application to the impact of REACH on environmental regulations of Asian countries. Section III conducts a case study of Japan. Given that a Japanese amendment just recently passed, this section also addresses Japan's policy adaptation to RoHS in 2006, in order to further analyze the factors explaining Japanese policy adaptation to European regulation. The final section concludes with a brief discussion of the implications for other Asian countries experiencing the impact of REACH.

## II. GLOBLAZATION AND ENVIRONMENTAL REGULATION: EXISTING LITERATURE

David Vogel's "Trading Up: Consumer and Environmental Regulation in a Global Economy" (Harvard University Press, 1995) is one of the pioneer studies which analyzed the impacts of

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<sup>12</sup> For instance, Scott, *supra* note 3; John Applegate, "Synthesizing TSCA and REACH: Practical Principles for Chemical Regulation Reform," 35 *Ecological Law Quarterly* 721-69 (2009).

<sup>13</sup> Park, DaeYoung, Song, Me-Young, Lee, Kwi-Ho, Yoon, Duk-Chan and Cong, Xiong, "REACHing Asia: Recent Trends in Chemical Regulations of China, Japan and Korea." Available at SSRN: <<http://ssrn.com/abstract=1121404>>

environmental standards on trade. Salient features of the book include challenging the traditional notion of “regulatory race to the bottom” and introducing the concept of the “California effect.” Often times, it was argued that globalization would increase regulatory competition, thereby driving governments to lower their standards. On the contrary, the “California effect” describes “the critical role of powerful and wealthy ‘green’ political jurisdictions in promoting a regulatory ‘race to the top’ among their trading partners.” In other words, it refers to the soft power of California’s environmental regulation in the US federal system, which stimulates other state governments to adopt higher environmental standards. This phenomenon is also known as “race to strictness.”<sup>14</sup>

However, when Vogel wrote “Trading Up” in 1995, he was referring to the regulatory interactions between the EU and US in the context of chemical regulation as follows:

The EU feared that unless its standards were comparable to those of the United States, it would be deprived of access to one of the world’s largest chemical markets. As a result, it established a much stricter system for the introduction and marketing of chemical products. Once again, stricter American standards drove those of its major trading partner *upward*.<sup>15</sup> (emphasis original)

It illustrated how the enactment of the Toxic Substances Control Act by the United States in 1972 influenced the European legislation for controlling chemical substances which came into force in 1979.<sup>16</sup> However, a decade has turned our impression turned 180 degrees; it is now the EU policies that are influencing the US policies. The emerging EU’s soft power is now feared by the US: “[b]ack then, America wrote the rules and the world followed. But no more; leadership has switched.”<sup>17</sup> The current impact of European environmental regulation outside the EU can be also described as “California effect.”<sup>18</sup> Presently, the regulatory interactions are not limited to the relations between the EU and US; non-EU countries have begun to adopt a similar environmental policy to the EU legislation voluntarily. How can we explain such a phenomenon?

There is a vast scholarly literature in political science which discusses the mechanisms of the spread of policy. “Policy diffusion” is one such scholarship. The concept of “policy diffusion” is defined as “the actions and choices of one country affect[ing] another, but not through any collaboration.”<sup>19</sup> More precisely, under the concept of “diffusion,” “governments are independent

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<sup>14</sup> Peter S. Swire, “The Race to Laxity and the Race to Undesirability: Explaining Failures in Competition among Jurisdictions in Environmental Law,” 14 *Yale L. & Pol’y Rev.* 67, 81 -82(1996).

<sup>15</sup> David Vogel, *Trading Up: Consumer and Environmental Regulation in a Global Economy* (Harvard University Press, 1995) p. 262.

<sup>16</sup> Directive 79/831/EEC Amending for the Sixth Time Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the Classification, Packaging and Labelling of Dangerous Substances (Sixth Amendment).

<sup>17</sup> Shapiro, *supra* note 1, at 9.

<sup>18</sup> David A. Wirth, “The EU’s New Impact on U.S. Environmental Regulation,” 31 *The Fletcher Forum of World Affairs* 91, 92(2007).

<sup>19</sup> Zachery Elkins and Beth Simmons, “On Waves, Clusters and Diffusion: A Conceptual Framework.” *Annals of the*

in the sense that they make their own decisions without cooperation or coercion but interdependent in the sense that they factor in the choices of other governments.’<sup>20</sup> Governments *voluntarily* act, but under the influence of some other government’s action. According to the definition, similar policy responses provoked by economic slumps and natural disasters are not treated as “diffusion.”<sup>21</sup>

In this sense, this paper’s theme, the impact of the EU’s environmental actions on Asian countries’ policies, can be analyzed by the concept of “policy diffusion.” While most “diffusion” research has focused on the waves of policy diffusion in the area of “liberalization” (such as democracy or free market economics), theories and mechanisms of diffusion can also apply to the area of environmental regulation. At present, diffusion research offers four general theories to explain policy diffusion; (1) *constructivism explanations*, insisting on the importance of the role of ideas or global norms associated with the activities of experts or NGOs, (2) *hard and soft forms of coercion* using aid conditionality, policy leadership, or hegemonic ideas, (3) *economic competition arguments*, for instance that a government follows economic reforms in hope of attracting foreign investment, and (4) *rational and objective learning* (which is different from “emulation”) by policymakers with a certain belief that other governments’ policy is effective.<sup>22</sup>

Alternatively, the concept of “policy (or regulatory) convergence” may be another familiar term. “Diffusion” and “convergence” are related concepts, and are often used synonymously, but it is still worth noting certain differences. It is perceived that “policy diffusion” concerns *processes* (rather than *outcomes*) and seeks to explain causal factors and mechanisms of policy adoption across countries.<sup>23</sup> On the other hand, “policy convergence” is a term describing *the end result of a process*, or “any increase in the similarity between one or more characteristics of a certain policy.”<sup>24</sup> Thus, the term “policy convergence” covers wider causal factors of policy changes; *either* policy diffusion (voluntary policy change), regulatory coordination by great powers,<sup>25</sup> or international harmonization of regulatory standards may lead to “policy convergence.”

Under such definitions, the literature of “policy convergence” may be more interested in a question of how to measure convergence or how much convergence occurred over time, but it also addresses the question of how and when policy convergence occurs. In “Trading Up,” Vogel argues that a country’s power to influence the regulatory policies of its trading partners is conditioned on two basic factors: (1) the size of its domestic market; and (2) the preferences of domestic

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No.598 *American Academy of Political and Social Science* 33, 38(2005).

<sup>20</sup> *Ibid.*, at 35.

<sup>21</sup> *Ibid.*, at 37.

<sup>22</sup> Frank Dobbin, Beth Simmons, and Geoffrey Garrett, “The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?” 33 *Annual Review of Sociology* 449-472 (2007). *See also*, Beth Simmons, Frank Dobbin, and Geoffrey Garrett, *The Global Diffusion of Markets and Democracy* (Cambridge University Press, 2008).

<sup>23</sup> Christoph Knill, “Introduction: Cross-National Policy Convergence: Concepts, Approaches and Explanatory Factors,” 12 *Journal of European Public Policy* 764, 766 (2005).

<sup>24</sup> *Ibid.*, at 768.

<sup>25</sup> Daniel W. Drezner, *All Politics is Global: Explaining International Regulatory Regimes* (Princeton University Press, 2007), p.11 (“*Regulatory coordination* is defined as the codified adjustment of national standards in order to recognize or accommodate regulatory frameworks from other countries.”).

constituencies, i.e., whether people (in a country exporting policies) want stricter environmental standards.<sup>26</sup> Indeed, “market size” seems to serve as one significant factor to promote policy convergence. As pointed out, “[m]arkets have a gravitational effect on producers – the larger (and closer) the economy, the stronger the pull for producers to secure and exploit market access.”<sup>27</sup> It is possible to explain the power shift from the US to the EU by the expansion of the size of the EU’s internal market.

The second factor claimed by Vogel, that is, the EU’s preferences for greener policies, should be closely examined. Policy convergence is not affected by the influence of the EU side alone: convergence happens by two-way interactions between the EU and non-EU countries that adapt their policies. There must be some causal factors on the side of non-EU countries in adapting European policies, too. On this point, it has been argued that “there is always an international and a domestic side to the international spread of policy innovation and convergence.”<sup>28</sup>

It may not be easy to identify which factor (or multiple factors) actually triggers policy convergence. It is argued that “there is no master mechanism of globalization [of regulation]. Instead, there are webs of influence.”<sup>29</sup> Among the webs of influence, this paper focuses on four main factors that can be drawn from the existing literature of “policy diffusion” and “policy convergence,” in order to explain the globalization of European environmental regulation: (1) market force/export interests; (2) costs of adjustment; (3) solving similar problems; and (4) the role of non-governmental actors.

#### *Market Force/Export Interests*

One possible explanation for why non-EU countries’ adapt their regulations is their interest in exporting to the EU. The EU, consisting of 27 member states, is a very significant market, one whose loss would be unpalatable, therefore, manufacturers and exporters in non-EU countries may be willing to implement REACH as soon as possible if they wish to continue exporting chemicals. And at the same time they can also accept similar EU standards in their own countries’ chemical manufacture regulations to gain an advantage in contrast with foreign competitors.

“Economic competition theory” in “diffusion” research can also provide a similar explanation. Originally, the theory might claim that economic competition leads to policy convergence at the lowest level (“the regulatory race to the bottom”); a country may relax environmental regulation in order to compete with another country.<sup>30</sup> However, at present, the competition theory can also explain “the regulatory race to strictness.” As Vogel pointed out, “domestic producers often compete with firms of other political jurisdictions by raising rather than lowering their [environmental and consumer] standards,” because “stricter standards represent a source of

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<sup>26</sup> Vogel, *supra* note 15, at 268-269.

<sup>27</sup> Drezner, *supra* note 25, at 34.

<sup>28</sup> Andrea Lenschow, Duncan Liefferink, and Sietske Veenman, “When the Birds Sing: A Framework for Analysing Domestic Factors Behind Policy Convergence,” 12 *Journal of European Public Policy* 797, 799 (2005).

<sup>29</sup> John Braithwaite and Peter Drahos, *Global Business Regulation* (Cambridge University Press, 2000), p.7.

<sup>30</sup> Dobbin, Simmons and Garrett, *supra* note 22, at 459.

competitive *advantage* for domestic producers.”<sup>31</sup>

#### *Costs of adjustment/Socio-Economic factors*

However, if the new EU regulation and the current domestic regulations (in non-EU countries) were too divergent, it may become quite costly for manufacturers (in non-EU countries) to change their production and business structures in accordance with the EU standards. Of course, non-EU countries could bear the temporary costs of aligning their current regulations with the EU ones, especially if the costs can be outweighed by long-time export interests to the EU. This means that the adjustment reform (in non-EU countries) must be “achievable at reasonable cost.”<sup>32</sup> In other words, the question is whether policy change is “affordable”<sup>33</sup> to a non-EU country, not only in terms of an economic sense but also given the possible disruptions caused by introducing a new European regulatory system.

So, adapting to REACH --- the EU’s most complex, expansive and ambitious piece of legislation --- may be too costly a domestic policy reform for non-EU countries. The factor of modest costs for policy reform may resonate with a study which suggests the condition of “high institutional similarity” between the EU and non-EU countries as a source for adaptation; “[p]olicies are transferred and properly implemented only insofar as they fit with existing institutional arrangements.”<sup>34</sup> The greater the initial institutional divergence, the greater chance of disruption caused by policy reform is high.

#### *Solving similar problems—Need for Domestic Environmental Policy Reform*

When the EU’s regulations on electrical and electronic equipment, RoHS and WEEE,<sup>35</sup> came into effect in 2003, particular attention was paid to China’s reaction and adaptation. China changed its waste management process to mirror European regulation not simply because of its export interests concerning the EU, but also because of its own need to respond to domestic waste problems.<sup>36</sup> In light of its own difficulties in the management of electrical and electronic equipment waste, China might have seen EU regulations as an accommodated model for reform. In the same vein, REACH could be an opportunity for non-EU countries to reform their chemical policies when the countries share the same concerns over the exiting system controlling chemicals. Perhaps, this argument reflects the “learning” theory aspect of “diffusion” research. Policymakers

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<sup>31</sup> Vogel, *supra* note 15, at 6. This argument is also supported by Swire, *supra* note 14, at 81 -82.

<sup>32</sup> Swire, *supra* note 14, at 82. For a similar argument of “the relative costs of target country regulatory adjustment,” see David Vogel and Robert A. Kagan, *Dynamics of Regulatory Change: How Globalization Affects National Regulatory Policies* (University of California Press, 2004) p.14.

<sup>33</sup> Lenschow *et al.*, *supra* note 28, at 800 (“Domestic policy-makers will aim at identifying ‘affordable’ responses to increasingly globalized economic relations and dependencies.”).

<sup>34</sup> Knill, *supra* note 23, at 770.

<sup>35</sup> Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE) [2003] *OJL* 37/24.

<sup>36</sup> See “Research on 3R Policies by Ministry of Economy, Trade and Industry [Kigyoutou ni okeru jyunkan system no koudoka kokusaika ni kannsuru chousai]” available in Japanese, at <[http://www.meti.go.jp/policy/recycle/main/data/research/h16fy/161012-3\\_mri\\_2.pdf](http://www.meti.go.jp/policy/recycle/main/data/research/h16fy/161012-3_mri_2.pdf)>.

in non-EU countries might learn lessons from the EU regulation that could be applied in their own countries, too.

Moreover, policy convergence may be accelerated if international agreements or institutions have engaged in similar problem-solving actions.<sup>37</sup> “The existence of intergovernmental supra-national institutions facilitates the shaping of a common response to common problems...”<sup>38</sup> Another study also suggests the role of “joint problem-solving activities within transnational elite networks or epistemic communities”<sup>39</sup> in facilitating policy convergence among nations.

For instance, current international trends have seen chemical policy reforms gradually increasing in popularity. The “Strategic Approach to International Chemicals Management (SAICM),” adopted in 2002 under the auspices of the United Nations Environmental Program (UNEP), illustrates the most recent global action concerning chemicals. The so-called Dubai Declaration, one of the documents consisting SAICM, is a political commitment adopted in 2006 for implementing appropriate chemical managements in order to promote sustainable development. Furthermore, other similar initiatives are found in the chemical management programs operated under the OECD in order to harmonize hazard testing methods, classification and labelling of chemical substances, and the implementation plans for the obligations under the Stockholm Convention on Persistent Organic Pollutants (POPs), which entered into force in 2004.

#### *The Role of non-governmental actors*

Quite a few studies argue the importance of the role of non-governmental actors in the literature of “policy convergence”: “[t]ransnational actors and international institutions influence policies by bringing norms generated or promoted in the international sphere into the domestic political arena. Such efforts may be aimed at a hazardous substance or its trade, creating or enforcing standards in areas such as human rights or labour...”<sup>40</sup> Vogel also argues in “Trading Up” that, while domestic producers (in non-EU countries) may be willing to meet EU standards due to their export interests, consumers and environmental organizations may be also encouraged to “demand similar standards for products sold in their domestic markets,”<sup>41</sup> suggesting that a common willingness of domestic producers and non-governmental actors (in non-EU countries) operates together to raise the standards. These arguments are similar to the constructivist explanations in “diffusion” research: experts and NGOs may promote protection of health and the environment from chemical risks, and such ideas are socially accepted by non-EU countries.

Alternatively, if it is likely that non-governmental actors are mobilized and demanding for stricter standards, governments may, in advance, attempt to adopt European standards in order to

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<sup>37</sup> Vogel and Kagan, *supra* note 32, at 15.

<sup>38</sup> Colin Bennett, “Review Article: What is Policy Convergence and What Causes It?” 21 *British Journal of Political Science* 215, 225(1991).

<sup>39</sup> Knill, *supra* note 23, at 770.

<sup>40</sup> Steven Bernstein and Benjamin Cashore, “Globalization, Four Paths of Internationalization and Domestic Policy Change: The Case of EcoForestry in British Columbia, Canada,” 33 *Canadian Journal of Political Science* 67, 71 (2000). This idea is supported by Vogel and Kagan, *supra* note 32, at 8.

<sup>41</sup> Vogel, *supra* note 15, at 6.

avoid strong pressures from domestic interest groups. This factor may be explained as *assuaging domestic constituencies*.

One important feature of REACH is that it makes information on chemicals publicly available. As will be further addressed in the next Section, REACH establishes a list of “substances of very high concern” that requires authorization before placing on the market. The information on those substances is available on the website of the European Chemicals Agency (ECHA).<sup>42</sup> Such information accessibility will make consumers or NGOs aware of which chemicals will be banned in the Europe. It is argued that “the greater availability of specialized information will result in legal pressure...by non-governmental organizations to reduce the use of toxic chemicals.”<sup>43</sup> The information concerning the authorization decision --- which substance is under the review of authorization, and the reasons for the decision --- is also available to the public.<sup>44</sup>

During the legislation processes of REACH, states outside of the EU attempted to dilute the force of REACH by lobbying activities in Brussels, the WTO’s TBT Committee, or the Asia-Pacific Economic Cooperation (APEC) Chemical dialogue. One of their fears was that by the enactment of REACH, consumers and NGOs could access hazard and risk information available at the ECHA’s website and as a result, demand that their governments amend the domestic chemical regulation.<sup>45</sup>

Now that REACH has been successfully enacted into law, domestic constituencies of non-EU countries can, at any moment, obtain information on chemicals banned under REACH. The recent moves by non-EU countries, including Japan, to amend domestic chemical regulations, may be explained by their need to pre-empt more drastic measures that may be demanded by interest groups. By responding quickly, governments can craft amendments under their discretion, without pressures from interest groups. Such a quick move might be initiated by the government itself, or together with industry actors who fear radical changes, described as “defenders of the status quo.”

### III. CASE STUDIES: JAPANESE POLICY ADAPTATION TO EUROPEAN REGULATION

There are many types of responses to the European regulations. To analyze the degree of policy convergence between the EU and non-EU countries, it is necessary to detect similarities to the EU regulation as well as *divergence* from it. Commonality might be fuelled by one or multiple factors, but divergent responses also occur for their own reasons. In fact, close examination of the Japanese cases on RoHS and REACH demonstrates that while one can discern certain impacts from European regulation upon Japanese laws, there is a resistance to adapt totally. The overarching question is why the country has hesitated to move toward the European model.

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<sup>42</sup> REACH Articles 58(4) and 59(10). For electronic public access in general, see REACH Article 119.

<sup>43</sup> Applegate, *supra* note 12, at 751.

<sup>44</sup> REACH Articles 64 (2) and (9).

<sup>45</sup> Shapiro, *supra* note 1, at 142 (“If people in Europe don’t have chemicals in their products that are dangerous, maybe we don’t want those same chemicals in our products either.”).

## A. RoHS

RoHS concerns the use of hazardous chemical substances in products. It prohibited electrical and electronic equipment containing six banned substances from entering the EU market. The six substances are lead, mercury, chromium, cadmium, polybromobiphenyl, and polybromodiphenylether.<sup>46</sup>

In Japan, it was in 2005, a year before RoHS entered into force, when the Industrial Structure Council under the Ministry of Economy, Trade, and Industry (METI) commissioned a project report entitled “For Establishing the ‘Green Product-Chain’.”<sup>47</sup> The report contained initiatives for amending a law in response to RoHS. The relevant existing Japanese legislation was the law of Promotion of Effective Utilization of Resources, which entered into force in 2001.

The report focused on two issues: (1) promoting 3R (Reduce, Reuse, Recycle) -oriented<sup>48</sup> designing and manufacturing; and (2) measures to deal with materials contained in products. The report noted the adoption of RoHS in the EU as an important international trend related to these two issues. However, at the same time, the report criticized inadequacy of scientific grounds underlying RoHS. It argued, “[f]ocus is given to only a part of the products using the substance,” while “[s]election standards for excluding from application are unclear.”<sup>49</sup> Also it contended, “[e]nvironmental impact assessment in the entire life cycle of the product related to the substance is unclear” and “[s]cientific risk assessment of the substance, which is part of environmental impact assessment, is not clear.”<sup>50</sup>

On the other hand, the report recognized the current efforts of Japanese manufacturers on waste recycling, for instance, “the disclosure of the status of use of recycled resources and parts, promotion of use of recyclable raw materials, a reduction in the number of parts in order to facilitate disassembling, separation, sorting and recycling, indication of separated and sorted parts...”<sup>51</sup>

As a result, the report concluded that, “there is low necessity that Japan takes the same measures taken by the EU to limit the use of lead and other materials,” and rather, Japan “should work forward to establishing a system to control information on [products that contain] specific scarce, useful and/or hazardous substances in the supply chain.”<sup>52</sup> Japan did not mirror RoHS (which banned the use of six hazardous substances), but chose to implement a measure concerning the

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<sup>46</sup> To be precise, the maximum percentage is set up for each substance that is allowed to contain in electrical and electronic equipment.

<sup>47</sup> Ministry of Economy, Trade, and Industry (METI) /Industrial Structure Council, “For Establishing the ‘Green Product-Chain’”, Waste Prevention and Recycling Subcommittee, Environment Committee, Report from Enhancement on WG of the Product 3R Systems, August 2005, available in English at ,  
<[http://www.meti.go.jp/policy/recycle/main/english/council/reports/green\\_product\\_chain.pdf](http://www.meti.go.jp/policy/recycle/main/english/council/reports/green_product_chain.pdf) >.

<sup>48</sup> “3R” means policies for “Reduce, Reuse, Recycle.” See,  
<<http://www.meti.go.jp/policy/recycle/main/english/index.html>>.

<sup>49</sup> “For Establishing the ‘Green Product-Chain’,” *supra* note 47, at 7.

<sup>50</sup> *Ibid.*

<sup>51</sup> *Ibid.*, at 6.

<sup>52</sup> *Ibid.*, at 8.

provision and flow of information if products contain hazardous substances. This is in contrast to the policy changes in China and Korea where the use of the six hazardous substances was banned, following RoHS in the EU.

However, the idea of RoHS was not totally discarded in Japanese policy change. The report suggested that the six substances prohibited under RoHS would be addressed under Japanese measures, too. The report argued that it is important to take it into account “international consistency.”<sup>53</sup> On the other hand, in terms of the covered products, the report listed only seven large electronic products: personal computers, air conditioners, television sets, refrigerators, washing machines, microwave ovens, clothes dryers. The seven products were picked because they were already required to be recycled under the existing Japanese law, and did not subject the industry to additional burdens.<sup>54</sup> By contrast, the product coverage is not limited under RoHS; RoHS applies to all kinds of electronic products, with some important exemptions.

Lastly, the report ends by discussing the importance of securing consistency with standards setting in international organizations. In particular, the focus is on the work in the International Electrotechnical Commission (IEC). The report pointed out that Japan was expected to take the initiative under the new technical committee (TC 111)<sup>55</sup> in the IEC, which reviews “environmental standardization for electrical and electronic products and systems,” established in 2004.<sup>56</sup> It also mentioned that a Japanese businessman<sup>57</sup> was appointed as a chairman for this committee. Interestingly, this point was taken up in a newspaper article, titled “Legislating *Japan RoHS*.”<sup>58</sup> *Japan RoHS* refers to the measure of information disclosure concerning products using the six hazardous substances. The article stated that the government was intended to develop a new standard at the international level similar to this Japanese practice.

A year after the publication of the report, in July 2006, the amendment went into effect. It was the same time as RoHS entered into force. The Japanese measure was implemented as the amendment of an enforcement order and ministerial ordinances under the law of Promotion of Effective Utilization of Resources and as the adoption of a Japanese Industrial Standard (JIS). The latter standard is called “the marking for presence of the specific chemical substances for electrical and electronic equipment (J-moss).” Products containing the six hazardous substances must be labelled with an “orange J-moss mark.”

In sum, Japan did not favour policy convergence through transplanting the ideas of RoHS; rather its preferred option was convergence through developing international standards in the IEC where Japanese producers could get involved and influence the process.

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<sup>53</sup> Ibid., at 9.

<sup>54</sup> Air conditioners, television sets, refrigerators, and washing machines were already required to be recycled under the Home Appliance Recycling Law (Dryers have been also added as a covered appliance in April, 2008). Personal computers were designated as “specified resources-recycled products” under Article 26 of the law of Promotion of Effective Utilization of Resources.

<sup>55</sup> For an overview of TC111, see <[http://www.iec.ch/dyn/www/f?p=102:7:0:::FSP\\_ORG\\_ID:1314](http://www.iec.ch/dyn/www/f?p=102:7:0:::FSP_ORG_ID:1314)>.

<sup>56</sup> “For Establishing the ‘Green Product-Chain’”, *supra* note 47, at 14.

<sup>57</sup> Mr Koichi Mori from Fujitsu Cooperation.

<sup>58</sup> “Legislating Japan RoHS (nihonban RoHS shidou),” *Nikkei Sangyou Shinbun*, January 26, 2005, at 12.

## B. REACH

### 1. REACH's requirements

REACH stipulates several unique, complex mechanisms for the control of chemicals. As a full analysis of the mechanism is beyond the scope of this paper,<sup>59</sup> we focus on two dimensions of the regulation, “registration” and “authorization.”

The “registration” dimension requires chemicals be registered in order to be introduced into the market. This rule is known as “no data, no market.”<sup>60</sup> While the obligation to notify or submit data is not new, it is further-reaching than previous regulations. REACH now covers existing “old” substances that are already on the market in addition to “new” substances yet to be introduced into the market. Previously, “old” substances already on the market were subject to the regulation known as “Existing Substances Regulation.”<sup>61</sup> Under this previous system, manufacturers or importers of the “old” chemicals were required to submit data including “reasonably foreseeable” risks, and among them, only priority substances were subject to risk assessment. Some commentators argued that the assessment was a time-consuming process and decisions over risk reduction were not effectively taken.<sup>62</sup> As a result, many “old” substances were still available on the market and not appropriately regulated. After the adoption of REACH, “old” substances became subject to the same regulation facing “new” substances in terms of submitting data. Furthermore, it was industry, instead of regulators, who became responsible for developing better information according to the relevant registration requirements.

Second and more importantly, REACH requires “authorization”: chemicals that are identified as “substances of very high concern” (known as “SVHC”) shall not be put on the market without authorization. The “substances of very high concern” are identified based on hazardous effect – such as CMR (carcinogenic, mutagenic, and toxic to reproduction), PBT (persistent, bioaccumulative and toxic), vPvB (very persistent and very bioaccumulative), and endocrine disruptors.<sup>63</sup> When substances are identified as hazardous, they become, in principle, non-tradable

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<sup>59</sup> For a comprehensive analysis on REACH's governance and arrangements, Joanne Scott, “REACH: Combining Harmonization and Dynamisms in the Regulation of Chemicals,” in Joanne Scott ed., *Environmental Protection: European Law and Governance* (Oxford University Press, 2009) pp. 56-91.

<sup>60</sup> REACH, the title of Article 5.

<sup>61</sup> Council Regulation (EEC) No 793/93 on the Evaluation and Control of the Risks of Existing Substances (“Existing Substances Regulation”).

<sup>62</sup> Ralf Nordbeck and Michael Faust, “European Chemicals Regulation and Its Effect on Innovation: An Assessment of the EU's White Paper on the Strategy for a Future Chemicals Policy,” 13 *European Environment* 79, 82 (2003); Sharon McEldowney, “EU Chemical Policy: A Foundation for Environmental Protection or a Missed Opportunity,” 4. *Yearbook of European Environmental Law* 85, 94-95 (2004); Veerle Heyvaert, “Guidance without Constraint: Assessing the Impact of the Precautionary Principle on the European Community's Chemicals Policy,” 6 *Yearbook of European Environmental Law* 27, 39-40 (2006); Nicolas de Sadeleer, “The impact of the Registration, Evaluation and Authorization of Chemicals (REACH) regulation on the regulatory powers of the Nordic countries,” in Nicolas de Sadeleer ed., *Implementing the Precautionary Principle: Approaches from the Nordic Countries, EU and USA* (Earthscan Pubns Ltd, 2007) pp.331-332.

<sup>63</sup> REACH, Article 57.

without authorization. In order to obtain authorization, the industry needs to satisfy a different condition<sup>64</sup> according to the hazardous substances in use; either to prove that the risk is adequately controlled, that socio-economic benefits outweigh the risk, or that there are no suitable alternative substances. It is argued that these conditions are not easy to meet, thereby being a “powerful incentive to look for substitutes”<sup>65</sup> for the hazardous chemicals identified as “substances of very high concern.” And it is along this dimension --- how to list “substances of very high concern” and subsequently whether to grant authorization for those substances to enter the market --- that the EU’s unique and complex decision-making processes comes into play.<sup>66</sup>

As stated, REACH, as a product regulation, is subject to WTO’s TBT Agreement. Many WTO Member States have expressed concern regarding REACH’s compatibility with the TBT Agreement. Such WTO inconsistency arguments were made before REACH entered into force, but the focus has shifted over time.<sup>67</sup> The current predominant concern under REACH is whether there is any discrimination between substances manufactured in the EU and those imported from non-EU countries, in their treatment at the “registration” stage.<sup>68</sup> Article 2.1 of the TBT Agreement stipulates that products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.

Furthermore, it is likely that as the registration process is completed, new concerns will be brought up. It is possible that issues may be raised under Article 2.2 of the TBT Agreement, which provides that regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. Whether the regulation creates unnecessary obstacles to trade is determined by whether it is more trade-restrictive than necessary to fulfil a legitimate objective, i.e., protection of human and animal health or the environment. Under REACH, chemicals that are identified as “substances of very high concern” shall not be put on the market without authorization. Thus, the question may be raised as to whether the level of risk to human and animal health or the environment posed by such substances is proportionate to a trade restrictive measure that requires authorization.

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<sup>64</sup> See conditions under Articles 60(2) or 60(4) of REACH.

<sup>65</sup> Applegate, *supra* note 12, at 750.

<sup>66</sup> For further details on the decision-making processes regarding authorization, see Scott, *supra* note 59, at 66-67.

<sup>67</sup> The concerns on REACH were first raised in March 2003, at the TBT Committee. According to the author’s own count, 171 concerns were raised until July 2008. While member states usually expressed their support for REACH’s legitimate objectives, such as the protection of human health and the environment, the various issues were raised. Some have concerned over REACH’s complex, burdensome, and costly procedures in general. Others specifically stressed trade restrictiveness of REACH, which may be inconsistent with Article 2.2 of the TBT Agreement. On the other hands, developing countries’ predominant concerns were negative impacts on small and medium sized enterprises and the need for technical assistance and special and differential treatment in the implementation of REACH.

<sup>68</sup> One of the arguments for the discriminatory effect is that non-EU manufactures of polymers need to register monomers in polymers while EU polymer manufactures need not do so, as monomers will be directly registered by EU monomer producers. See, Article 6.3. Committee on Technical Barriers to Trade, Minutes of the Meeting of 20 March 2008, G/TBT/M/44, paras.119, 140(concerns expressed by the US and Japan).

## 2. Signals for Change: Japan's Chemical Policy

Japan's main legislation concerning chemicals is the Chemical Substances Control Law ("Kashinho"), which entered into force in 1973. The law introduced a notification and prior-assessment system for new substances being put on the market as early as the Toxic Substance Control Act of 1972 ("TSCA") was introduced in the US. The European legislation for controlling new substances later came into force in 1979.

One feature of "Kashinho" is that both "new" and "old" substances already on the market fall under its regulatory scope. However, "Kashinho" faces difficulties similar to those of the European chemical regulatory system before the introduction of REACH: the risk assessment for "old" substances was delayed. As a result, only around 1,500 substances<sup>69</sup> out of 20,000 have undergone a risk assessment as of 2007.

The three ministries (The Ministry of Economy, Trade and Industry, The Ministry of the Environment, and The Ministry of Health, Labour, and Welfare) began to discuss the amendment of "Kashinho" under the joint committee in the beginning of 2008. The Committee issued the report (hereinafter, "Joint Committee Report") in December 2008, with proposals for the amendment.<sup>70</sup> Based on the "Joint Committee Report," the amendment bill was brought before Parliament in February 2009. The bill was passed in May 2009.

Interestingly, the background of the amendment was mainly attributed to the international goal set at the World Summit on Sustainable Development (WSSD) that intended to minimize adverse effects of chemicals on human health and the environment by 2020.<sup>71</sup> The enactment of REACH was barely mentioned; it was simply described as one regional movement in order to realize the international goal of WSSD. However, whether or not the Japanese amendment is susceptible to the influence of REACH can be determined by detailed analysis of the Japanese amendment.

## 3. Similarities and Differences

### Informational burden and prioritization

Similar to REACH, the Japanese amendment is being considered to expedite risk assessment for the vast array of existing "old" substances already on the market. However, it proposes a way to facilitate the supply of information that is different from REACH; the Japanese amendment seeks to a "prioritization" approach.

According to the amendment, industry is required to provide data such as estimated quantities

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<sup>69</sup> The year-by-year number of existing substances that already undergone the assessment is available at <[http://www.safe.nite.go.jp/jcheck/pages/img/sekoujyoukyou\\_H19.pdf](http://www.safe.nite.go.jp/jcheck/pages/img/sekoujyoukyou_H19.pdf)>. General information on chemicals is available at "Japan Chemicals Collaborative Knowledge Database" since 2006, but only in Japanese, <<http://www.safe.nite.go.jp/jcheck/Top.do;jsessionid=D65DA24E850090DB6258B445587E4108>>.

<sup>70</sup> Joint Committee Report, December 22, 2008, available only summary in English <[http://www.meti.go.jp/policy/chemical\\_management/english/joint\\_committee\\_to\\_review\\_cscl2008.html](http://www.meti.go.jp/policy/chemical_management/english/joint_committee_to_review_cscl2008.html)>.

<sup>71</sup> Joint Committee Report, p.1.

and other information<sup>72</sup> (regardless of hazard) (Article 8), which was not required before the amendment. Then, based on such information submitted by industry, the competent authority (regulator) will make a list of “priority chemicals” (Article 2(5)). “Priority chemicals” are explained as “substances which the government identifies, from the content of their notifications and available knowledge of their hazardous properties, as having higher priority in risk assessment.”<sup>73</sup> When a substance falls into the list of “priority chemicals,”<sup>74</sup> industry is required to conduct a hazard assessment (Articles 10(1) and (2)), to be subject to further risk assessment by the competent authority (Article 10(3)).

Such a prioritized evaluation system seems to be similar to the European chemical regulatory system existing before REACH --- “Existing Substances Regulation,”<sup>75</sup> rather than REACH itself. Under the Japanese amendment, industry’s burden of proof is much smaller than REACH requires. Under REACH’s “registration” framework, industry is required to submit more data; for instance, manufacturers or importers are obliged to identify uses of a substance not only in their own product but also in their respective supply chains.<sup>76</sup> Additionally, industry which manufactures or imports chemicals more than 10 tonnes is even required to conduct risk assessment, while under the Japanese amendment risk assessment is conducted by the regulator.<sup>77</sup>

Moreover, although the “Joint Committee Report” stated that industry would be responsible for providing information,<sup>78</sup> the principle of industry responsibility was not explicitly stated in the Japanese amendment. It seems that the competent authority is still mainly responsible for data acquisition with the cooperation of industry. By contrast, REACH clearly states the principle under Article 1 (3): “This Regulation is based on the principle that it is for manufactures, importers and downstream users to ensure that they manufacture, place on the market or use such substances that do not adversely affect human health or the environment.”

#### Identification of chemicals with high risks

As stated, one feature of REACH is a new system for identifying “substances of very high concern” that are subsequently subject to the “authorization” process before they can be placed on the market. REACH identifies substances having properties with CMR (carcinogenic, mutagenic, and toxic to reproduction), PBT (persistent, bioaccumulative and toxic), vPvB (very persistent and very bioaccumulative), and endocrine disruptors as high risk chemicals.

Substances identified as chemicals of concern may vary among countries. However, the influences of REACH can be already discerned on this point, too. The U.S., for example, looks to

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<sup>72</sup> According to Joint Committee Report, estimated uses will be included in the information to submit (Joint Committee Report, p.3).

<sup>73</sup> *Summary of the bill to amend the Chemical Substances Control Law*, p.2, available in English at <<http://www.meti.go.jp/english/press/data/pdf/090224Summary.pdf>>.

<sup>74</sup> Japanese industry seems to worry that the list of prioritising substances effectively functions as a “black list,” similar to the so-called “candidate list” under REACH Article 59.

<sup>75</sup> See supra note 61 and its accompanying texts.

<sup>76</sup> REACH Articles 10(a)(iii) and 37.

<sup>77</sup> REACH Article 14.

<sup>78</sup> Joint Committee Report, p.3 (“Business institutions in principle collect the relevant information”).

REACH's list of "substances of very high concern" to select its own high risk chemicals.<sup>79</sup> In Japan, "Kashinho" was originally applied to substances having "persistent" properties. Before the amendment, substances having PBT (persistent, bioaccumulative and toxic) were subject to the authorization process (known as "Class I Specified Chemical Substances"), and substances having "persistent," "toxic" but *without* "bioaccumulative" properties were subject to the less restrictive process (known as "Class II Specified Chemical Substances").<sup>80</sup> Under the amendment, these two classifications still remain (Article 2), but the latter category of "Class II" now covers substances that do not have "persistent" properties (Article 2(3)). This suggests that the amendment expanded the scope of high-risk chemicals and in theory endocrine disruptors could be covered by the law similar to REACH.

#### 4. How does REACH impact Japanese reform?

Overall, REACH has impacted the Japanese amendment process, but its impact was not as strong as one might assume. The following two factors can be raised as impediments to chemical policy convergence between the EU and Japan.

##### Conflict over principle of industry responsibility

As noted, both European law prior to REACH regulation and Japanese law suffered from the same problem --- the lack of safety data on existing "old" chemicals already on the market. However, in terms of how to generate the safety information on those chemicals, the Japanese amendment did not exactly follow the idea of REACH. While Japan's newly amended system imposes certain informational responsibilities on industry, its substantial burden is much smaller compared to that put forth by REACH. According to Japanese amendment, it is still the *regulator's* responsibilities to demand that industry submit additional data.<sup>81</sup> After all, the principle of industry responsibility was not explicitly stated in the amended Japanese law. By contrast, the responsibility of industry for supplying information is a fundamental principle under REACH.

Alternatively, the Japanese amendment introduced a system of prioritizing chemicals for assessment in order to assist regulators' work, but it remains uncertain whether such a priority system works effectively --- whether industry has an incentive to generate better information and can respond to the informational demand from regulators, or whether the regulator can accelerate the pace of evaluating chemical safety.

Perhaps it was not the fact of high costs of adjustment alone that Japan refused the introduction of the industry responsibility put forth by REACH. Since Europe is the second-largest export destination for Japan,<sup>82</sup> the Japanese industry needs to implement REACH respectively in order to

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<sup>79</sup> For the analysis of the state level chemical policy reform, Scott, *supra* note 3, pp.29-42.

<sup>80</sup> Before the amendment, 16 substances were designated as "Class I," and 23 substances as "Class II."

<sup>81</sup> In the Japanese system, it is the competent authority, not industry who is responsible for conducting risk assessment, which is one of the major differences from REACH.

<sup>82</sup> The first major export destination of Japan is Asia, and the third one is North America. *See* data from Japan

continue trading with Europe, and it must account for the high costs of internal reform in its trading systems. Rather, what mattered most might be a radical shift in the conceptual difference on the question of who, *either industry or regulator*, should hold the responsibility for generating information.

It is less clear at this moment whether industry actors played a significant role as “defenders of the status quo” in not introducing the same principle of industry responsibility from REACH into the Japanese amendment. According to public comments on the draft of “Joint Committee Report,” some of the industry actors actually objected to the idea of introducing industry responsibility for supplying information, arguing that the regulator should also play a role in gathering data.<sup>83</sup> Moreover, other industry actors expressed concern over what kind of data would have to be submitted, or whether there would be opportunities for the industry to comment on the safety evaluation done by the regulator after submitting data.<sup>84</sup>

#### Difficulties in mobilizing non-state actors

Although in the Joint Committee and its joint working group, relevant interested actors, such as industry actors, NGOs<sup>85</sup> or university professors, were invited to discuss the plan of reform, it seems that the voices of NGOs or academics were not clearly reflected in the “Joint Committee Report.”<sup>86</sup> Before the amendment, some commentators had expressed concern over the treatment of “old” substances and supported introducing industry responsibility for supplying information.<sup>87</sup> As noted, the introduction of such a concept was not adopted. Instead, a prioritized evaluation system was introduced. In terms of this system, during the amendment, NGOs and academics were concerned whether the industry would fully provide the basic information (volume and uses of chemicals)<sup>88</sup> and how the government could require the industry to provide additional information (mainly hazard data).<sup>89</sup> They also emphasized the importance of the flow of information between upstream and downstream producers, and labelling requirements for consumer products.

Only two points, favourable to NGOs and consumers (but unfavourable to the industry), were incorporated into the amendment bill. One element was, as stated previously, the expansion of the scope of the concerned chemicals. Japanese law previously covered only the chemicals with

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Chemical Industry Association, available in English at <[http://www.nikkakyo.org/upload/2425\\_3218.pdf](http://www.nikkakyo.org/upload/2425_3218.pdf)>.

<sup>83</sup> Comments submitted by general public with the name of senders are available in Japanese at <<http://www.meti.go.jp/press/20081222004/20081222004-5.pdf>>.

<sup>84</sup> On this point, REACH ensures a participatory system: for instance, interested parties have a right to submit comments when a chemical is determined as a high risk substance (REACH Article 58(4)) or through the process of the authorization decision-making (REACH Article 64(3)).

<sup>85</sup> Toxic Watch Network <<http://toxwatch.xteam.jp/HP/Default.htm>>.

<sup>86</sup> Minutes are available only in Japanese, <[http://www.meti.go.jp/committee/gizi\\_1/17.html](http://www.meti.go.jp/committee/gizi_1/17.html)>.

<sup>87</sup> Otsuka Tadashi, *Kankyoho* (Environmental Law) (Second edition, 2006) p. 257; Yamada Hiroshi, “Kizonkagakubusshitsukanri no Seido Sekkei (Institutional Design for Managing Existing Chemical Substances),” *Jichi Kenkyu* Vol.81, No.9, p.62 (2005).

<sup>88</sup> As noted, according to the amendment, it is now a legal obligation of the industry to provide the basic information, but there is no enforcement system.

<sup>89</sup> Before the amendment, the government was also able to direct manufacturers or importers to conduct a hazard (long-term toxicity to humans) survey if necessary, but it was rarely enforced.

“*persistent*” properties, but now “chemical substances which are *not* persistent in the environment” are also subject to the amended law. Consequently, chemicals *without* “persistent” properties, such as CMR (carcinogenic, mutagenic, and toxic to reproduction) or endocrine disruptors, cited under the framework of REACH’s “substances of very high concern,” would be covered by the amended law.

As for the other element, there were a few improvements – very few! – concerning transparency. For instance, the amended law set a requirement of information flow to downstream users once a substance fell under the list of “priority chemicals”(Article 12).<sup>90</sup> Labelling of chemical substances is now required when the substances are designated as “Class I” and “Class II” chemicals (This is also applies to substances in articles).

#### IV. CONCLUDING REMARKS: IMPLICATION FOR OTHER ASIAN COUNTRIES

The previous Section illustrated how the ideas of European environmental regulation influenced the Japanese legal system. European ideas were not transplanted entirely; some ideas were embedded into the Japanese legal system but others were not.

It remains uncertain how REACH will influence other Asian countries. Arguably, Asian industry needs to respond to REACH somehow in order to continue trading with Europe. The three major regions exporting to the EU are North America, Rest of Europe and Asia (excluding Japan).<sup>91</sup> Separately, it is interesting to see whether Asian governments may consider legal reform. In terms of world chemical sales, the sales by Asian countries have been growing and already outweigh the EU’s sales (due to the rise of China and India).<sup>92</sup> Thus, chemical policy is of increasing of importance to Asia.

It has been suggested that the globalization of European regulation may cause friction between the European system and local systems, and one such challenge is the “mismatch” of the European ideas with the local needs or priorities.<sup>93</sup> While some Asian countries already have a basic law on managing chemical substances (ex. China and Korea), others have not yet enacted such a law (Vietnam recently enacted a new law). If a country has a long history of existing chemical regulations, like Japan, policy change based only on the external influences of REACH may be difficult; internal pressures from NGOs might be necessary to change the status quo. However, as the Japanese case demonstrates, NGO actors are smaller in Asian countries, while one of the

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<sup>90</sup> Also, substances listed up in the “priority list” may be afterwards identified as “Type I Monitoring Chemical Substances,” and further, categorized as “Class I Specified Chemical Substance.” The requirement of the flow of information down in the supply chain is also provided with regard to “Type I Monitoring Chemical Substances”(The Japanese amendment bill, Article 5(6)).

<sup>91</sup> See facts and figures provided by European Chemical Industry Council, available at < [http://www.cefic.org/factsandfigures/level02/intertrade\\_index.html](http://www.cefic.org/factsandfigures/level02/intertrade_index.html) >.

<sup>92</sup> See facts and figures provided by European Chemical Industry Council, available at < [http://www.cefic.org/factsandfigures/level02/profile\\_index.html](http://www.cefic.org/factsandfigures/level02/profile_index.html) >.

<sup>93</sup> Veerle Heyvaert, “Globalizing Regulation: Reaching Beyond the Borders of Chemical Safety,” 36 *Journal of Law and Society* 110 -128 (2009).

features of chemical policy reform in Europe or in the US is the significant role of NGOs.<sup>94</sup> Moreover, the issue of improving chemical safety might be a difficult theme to gain the attention of consumers: the public may not understand or react to the threat posed by potentially harmful chemicals to their health and environment in the future.

Alternatively, a country which has not had a firm standing chemical policy might be more adaptive to REACH. As noted, one feature of REACH is the informational burden placed on industry. Introducing the principle of industry responsibility “alleviates the regulatory burden, making REACH more easily transportable than risk regimes that rely predominantly on public data gathering and assessment,”<sup>95</sup> which was a characteristic of the Japanese system before the recent amendment. Of course, even if the informational burden is imposed on industry rather than regulators, regulators still need to be able to screen and assess the quality of the information supplied by industry. So, even under REACH-type regulation, a country has to have some administrative resources for managing information.

Another concern is, more importantly, whether adaptation to REACH can improve the chemical management in Asian countries, thereby protecting human health and the environment.<sup>96</sup> The lack of data remains a common problem. However, for each country, successful facilitation of information supply may not follow the same models as the EU. The “small and medium enterprises (SMEs)” may not be capable of generating better information compared with larger chemical companies located in the EU. Also, the capacity of regulators, in screening and assessing information, is relevant. It remains to be seen whether REACH can influence Asian countries in a way that is uniquely tailored to the needs and circumstances of each.

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<sup>94</sup> Scott, *supra* note 3, at 74 (“Crucially, this section also demonstrates the key role that non-governmental actors have played in bringing REACH to the attention of state officials ...”).

<sup>95</sup> Heyvaert, *supra* note 93, at 120.

<sup>96</sup> *Ibid.*, at 122.