



European
University
Institute

ROBERT
SCHUMAN
CENTRE FOR
ADVANCED
STUDIES

WORKING PAPERS

RSCAS 2017/36
Robert Schuman Centre for Advanced Studies
Global Governance Programme-273

Trade Agreements, Regulatory Sovereignty and
Democratic Legitimacy

Bernard Hoekman and Charles Sabel

European University Institute
Robert Schuman Centre for Advanced Studies
Global Governance Programme

**Trade Agreements, Regulatory Sovereignty and Democratic
Legitimacy**

Bernard Hoekman and Charles Sabel

EUI Working Paper **RSCAS** 2017/36

This text may be downloaded only for personal research purposes. Additional reproduction for other purposes, whether in hard copies or electronically, requires the consent of the author(s), editor(s). If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the working paper, or other series, the year and the publisher.

ISSN 1028-3625

© Bernard Hoekman and Charles Sabel, 2017

Printed in Italy, July 2017

European University Institute

Badia Fiesolana

I – 50014 San Domenico di Fiesole (FI)

Italy

www.eui.eu/RSCAS/Publications/

www.eui.eu

cadmus.eui.eu

Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies (RSCAS), created in 1992 and directed by Professor Brigid Laffan, aims to develop inter-disciplinary and comparative research and to promote work on the major issues facing the process of integration and European society.

The Centre is home to a large post-doctoral programme and hosts major research programmes and projects, and a range of working groups and *ad hoc* initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration and the expanding membership of the European Union.

Details of the research of the Centre can be found on:

<http://www.eui.eu/RSCAS/Research/>

Research publications take the form of Working Papers, Policy Papers, Policy Briefs, Distinguished Lectures, Research Project Reports and Books.

Most of these are also available on the RSCAS website:

<http://www.eui.eu/RSCAS/Publications/>

The EUI and the RSCAS are not responsible for the opinion expressed by the author(s).

The Global Governance Programme at the EUI

The Global Governance Programme is one of the flagship programmes of the Robert Schuman Centre for Advanced Studies at the European University Institute (EUI). It aims to: build a community of outstanding professors and scholars, produce high quality research and, engage with the world of practice through policy dialogue. At the Global Governance Programme, established and early career scholars research, write on and discuss, within and beyond academia, issues of global governance, focussing on four broad and interdisciplinary areas: European, Transnational and Global Governance; Global Economics; Europe in the World; and Cultural Pluralism.

The Programme also aims to contribute to the fostering of present and future generations of policy and decision makers through its unique executive training programme, the Academy of Global Governance, where theory and “real world” experience meet. At the Academy, executives, policy makers, diplomats, officials, private sector professionals and academics, have the opportunity to meet, share views and debate with leading academics, top-level officials, heads of international organisations and senior executives, on topical issues relating to governance.

For more information: <http://globalgovernanceprogramme.eui.eu>

Abstract

Governments increasingly are seeking to use bilateral and regional trade agreements to reduce the cost-increasing effects of differences in product market regulation. They also pursue regulatory cooperation independent of trade agreements. It is important to understand what is being done through bilateral or plurilateral mechanisms to address regulatory differences, and to identify what, if any, role trade agreements can play in supporting international regulatory cooperation. This paper reflects on experience to date in regulatory cooperation and the provisions of recent trade agreements involving advanced economies that have included regulatory cooperation. We argue for a re-thinking by trade officials of the modalities and design of trade negotiations and the incorporation of institutional mechanisms that draw on insights of experimentalist governance approaches to enhance the scope for international regulatory cooperation.

Keywords

Trade agreements, regulation, international cooperation, sovereignty, legitimacy.

JEL codes: F02; F15; K23

1. Introduction*

Trade agreements from NAFTA to CETA, the Comprehensive Economic Trade Agreement between Canada and the EU, and the Transatlantic Trade and Investment Partnership (TTIP) talks between the EU and the US are castigated today on both sides of the Atlantic as the engine and emblem of disruptive globalization. The decades-long efforts to reduce barriers to trade and investment and to anchor trade policy reforms in trade agreements generated large aggregate benefits for the world as a whole and supported a rapid rise in average per capita incomes in many developing countries. But in combination with rapid technological change, they also wrought unanticipated and uncompensated havoc on industrial communities in many advanced countries. Elimination of restrictions on capital flows destabilized financial markets in both developed and developing countries and propagated several major economic crises since the late 1990s.

Much less noticed, the successes of the free-trade movement, responding to and reinforcing deep changes in the organization of production and related shifts in the nature of regulation, are redirecting the trade policy agenda. Although tariffs continue to be an obstacle to international trade, in many cases tariffs on industrial goods traded between advanced countries have declined to nuisance levels—collection costs sometimes exceed revenues. The remaining obstacles to trade are largely “behind the border” regulations or nontariff measures (NTMs). Some NTMs, such as restrictions on foreign ownership of airlines or requirements that government agencies source goods or services from domestic firms, are simply exclusionary; others, such as duplicative obligations imposed by different authorities, are purposeless, and cause dead weight losses. Others reflect successful lobbying by vested interests to restrict competition so as to capture rents. But particularly within clubs of countries with high and similar regulatory standards, many NTMs reflect reasonable differences across countries in approach to the difficult regulatory problems protecting workers, health, safety and the environment: often subtle distinctions in determinations of what safety means with regard to a particular class of product, how to achieve it and how to demonstrate achievement—all rooted in the particularities of national experience and culture—and authorized under the regime of the WTO, which principally requires that countries apply the rules they set at home without discrimination to domestic and foreign producers (the “national treatment” rule).

Given the globalization of production—conspicuous in massive increases in two-way foreign direct investment (FDI) between large industrial countries, and large increases in intra-firm as well as intra-industry trade flows between suppliers and customers in extended value chains—these regulatory differences are costly for international businesses (OECD, 2017), which increasingly have common preferences for reducing them through trade agreements. The result is a new political economy of trade. Traditional trade negotiations pitted firms standing to gain from exports, and favoring lower tariffs, against firms threatened by imports, and defending continued tariff protection. Today, particularly in the transatlantic negotiations, among politically active companies it is the unusual firm that does not export or import products or components. The overwhelming majority are thus in favor of reducing trade costs, now principally NTMs, even if there is (as among members of a standard setting body) disagreement on what the new rules should be. Opposition to adjustment of NTMs—often vocal and sustained—comes from consumer and civil society groups, who fear that negotiations aimed at reducing regulatory differences will open the door to lowering standards and displacing jobs. (Young, 2016; De Ville and Siles-Brügge, 2016).

* We are very grateful to Robert Basedow, Thomas Bollyky, Marco Bronckers, Philipp Genschel, Sean Heather, Aaditya Mattoo, Petros Mavroidis, Dani Rodrik, Richard Stewart and Robert Wolfe for comments on an earlier draft, and to participants in EUI and NYU seminars and a CIGI-World Bank workshop on International Trade and Regulatory Cooperation for helpful suggestions and discussions.

Because of the visceral sensitivity and political salience of the interests at stake no government in an advanced country today simply capitulates to the general, but diffuse interests of “business,” or defers to the preferences of trade partners in such matters. Instead, reducing regulatory trade costs requires private, public and civil society stakeholders alike to address differences within and between countries, establishing, sector by sector, the equivalence of their regulatory regimes: agreeing on essential regulatory requirements and demonstrating to each other, and ultimately the public at large, comparable rates of compliance, while allowing the means to these ends to differ from jurisdiction to jurisdiction according to variations in their circumstances.¹ Reduction of trade costs can, in other words, only be achieved by clarifying shared values and establishing confidence that they are mutually respected, in ways specific to each party.

At the same time as the international trade policy community is focusing more on developing such sectoral approaches to reduce the costs of NTMs, changes in the nature of regulation make international cooperation more difficult and demanding, but also, arguably, more politically accountable. The regulator’s traditional role has been to fix and assure continuing compliance with entry conditions for market operators and their products. The spread of global value chains together with other secular changes in the organization of production fosters increasingly rapid combination of novel technologies in new products. A cost of accelerated innovation is the likelihood that close collaboration among many actors at long range in complex supply chains introduces latent hazards undetected when products are approved for sale. In response, regulators, domestically and in various kinds of international agreements, have begun to supplement pre-approval or ex ante review of new products with post-approval or ex post monitoring of goods in commerce, typically through requirements to report dangerous breakdowns in control, to trace these incidents to their root cause, and to take corrective and preventative action.

The increasing emphasis on the ability rapidly to detect and correct latent hazards complicates efforts to reduce trade costs by establishing regulatory equivalence while potentially increasing their utility and public accountability. To meet these requirements trade partners must not only currently achieve essentially equivalent results, but also demonstrate a robust capacity to continue to learn from their own, and the others’ mistakes. Establishing regulatory equivalence to reduce trade costs thus entails close, ongoing collaboration among regulatory officials—both those working on the ground, inspecting facilities and products, and those with managerial responsibility—in determining how existing rules will be interpreted and enforced and new ones devised, while explicitly allowing for continuing differences in the way shared outcomes are achieved.

At its best such international collaboration allows regulators to routinely re-evaluate their own performance in the light of others’ successes and failures, improving on the ability of any national regime in isolation effectively to defend the values entrusted to it. When this is so, reductions in trade costs or increased market access and improvements in regulatory control of markets—reflecting shared values and respect for persisting differences—can be complementary, not conflicting. Moreover, and more surprising, given that trade negotiations are often decried today as a technocratic conspiracy against national traditions and the popular will, the continuing and searching mutual scrutiny required by regulatory equivalence creates novel possibilities for transparent and publicly accountable decision making, and thus for reconciling sovereign self-determination with the stepwise extension of economic exchange and regulatory cooperation. Or so we shall argue.

¹ Equivalence is one form of what Drezner (2007, p. 11-12) calls “regulatory coordination”: “the codified adjustment of national standards in order to recognize or accommodate regulatory frameworks from other countries.” Others include convergence or “the narrowing of gaps in national standards over time”; harmonization, or “convergence to a single regulatory standard;” and mutual recognition, understood as coordination through reciprocal acceptance of existing standards, without convergence. Depending on their evolution, continuing determinations of regulatory equivalence could entail movement in the direction of harmonization in one period or with respect to some question, and mutual recognition or convergence through mutual adjustments in other periods or in regard to other problems. For a useful discussion of equivalence in this semantic web, see Young, 2015, pp 1256-57.

The body of the essay is in four parts. Section 2 discusses the deep changes in production that increase uncertainty under globalization, making it impossible for either regulators or firms to confidently anticipate many hazards, while linking firms in supply chains or industry groupings, so that a dangerous failure at one link jeopardizes the reputation of all. In this setting all actors—or at least all actors capable of sustained improvement—have an interest in cooperating in the construction of incident reporting systems to identify emergent hazards before they result in ruinous harm. In Section 3 we show that systems of this kind have been established as part of regulatory equivalence regimes bilaterally between the EU and US in civil aviation and the US and Canada in food safety, independent of trade agreements, and serve as models for emulation under them.

Section 4 discusses the limits of efforts to institutionalize support for regulatory cooperation broadly conceived in current (draft) trade agreements, and suggest more promising alternatives. Trade agreements are regulation par excellence, and unlikely to be an exception to the trend in regulation to supplement ex ante review with ex poste monitoring. Unanticipated consequences are especially likely in the case of efforts to establish regulatory equivalence given the need for continuing adjustment to changing circumstances. Yet the focus of chapters on regulatory cooperation in recent trade treaties — particularly salient in the Trans Pacific Partnership (TPP)—is to promote the transparency and contestability of decisions regarding new regulation, often by adopting some version of US notice-and-comment rule-making (by which interested parties comment on rules and the regulator responds before they are adopted) and some variant of the cost-benefit analysis also prominent in the US administrative process and in the principles of good regulatory practices developed by the OECD and APEC. Our proposal, in accord with the 2016 EU proposal on regulatory cooperation in the TTIP talks, is that high-level treaty bodies, in addition to fostering transparency and stake-holder consultation in the process of rule-making, develop mechanisms to support the parties' efforts, sector by sector, to establish regulatory equivalence, initially by mandating careful reviews of and reporting on progress and problems, and later, as experience accumulates, by providing technical assistance linked, when necessary, to conflict resolution.

Section 5 makes the case for pursuit of regulatory equivalence and more generally regulatory cooperation as a democracy-enhancing and growth-friendly response to globalization. Critics of “hyper” globalization have argued generally that trade agreements have gone too far in limiting national “policy space”—the freedom to adopt measures to support domestic economic activity with the aim of promoting social welfare (especially in advanced countries) and faster growth (especially in developing ones). The remedy they propose is a return to the “thin” rules of international trade under the Bretton-Woods regime, which did not reach behind borders, leaving countries free to organize their economies according to domestic political preferences.

We argue that changes that make global supply chains a basic unit of industrial organization, prompt regulatory concern with ex post monitoring, and lead trade negotiations to engage with the trade effects of differences in regulatory regimes, make it more promising to pursue the general end of enlarging policy space by the fair and open setting of standards for product safety, labor standards, environmental protection, and safeguarding public health and welfare: the very policy areas that are willy-nilly moving to the center of the trade agenda. Ideally, mega regional and plurilateral trade agreements in the WTO will establish the framework, and when needed the support, needed to make determination of equivalence of standards open and fair; and the reciprocal scrutiny of the results will improve democratic oversight of the actual effects of regulatory cooperation in each party. We argue as well that the same changes in production that make regulatory issues central to trade negotiations also change the nature of economic development and make regulatory concerns more central to it. Thus enlarging national policy space in regulatory matters also makes the emerging trade regime hospitable to new industrial policies for accelerating growth.

In Section 6, in lieu of a conclusion, we contrast the characteristic horse trades of traditional trade negotiations, conducted in secret with outcomes fixed in rules, and new vintage trade negotiating settings where the goal of agreements is the creation of (relatively) open fora for ongoing evaluation of

regulatory equivalence. In focusing on regulatory equivalence as a means to reduce the costs of regulatory differences we do not mean to suggest that this is the sole issue worthy of attention in current trade negotiations, and still less that advancing on that front is a panacea for the problems of globalization. Most obviously there are open and urgent questions regarding the scope of investor protections against expropriation by host states (investor-state dispute settlement or ISDS) and protection of rights to intellectual property—questions, in both cases, of how broadly certain kinds of property rights should be construed as limits to public regulation. If expansive interpretations of those rights were, against our expectations and hopes, to win out, much of the discussion about regulatory equivalence—indeed international standard setting in general—would be vexed and the space for domestic policy making sharply constrained. There are legitimate concerns that pursuit of regulatory cooperation could have a chilling, de-regulatory effect, and we address them. But with this exception, we set these questions aside and focus on the problems—difficult enough—of making the best of a world where trade barriers have been greatly reduced even as regulation is expanding in scope and confronting ever greater challenges, partly in response to the new structure of international production and trade.

Our focus is limited to the regulation of products and production processes to attain health, safety and similar goals. We abstract from regulation meant to restrict entry and reduce competition as this is subject to traditional forms of trade negotiation. We recognize that the new types of trade agreements centered on regulatory matters are nascent. By showing emergent elements of regulatory cooperation in their best light we aim to suggest ways to encourage and institutionalize trade cooperation in areas where countries share similar values and social preferences, while providing mechanisms to protect the sovereign right to reject cooperation in areas where they do not. Because regulatory differences are so consequential, pressure for regulatory cooperation, by more or less transparent means, will likely proceed so long as trade expands. Recent experience suggests that such cooperation will only be stable if it is subjected to continuing democratic control, but also, if less obviously, that the possibilities for doing just that are better than we might fear.

2. Regulatory implications of international interdependence

Unpredictable shifts in the level and composition of demand and technological developments have profoundly changed the organization of production globally, making the economy both more innovative but also more vulnerable to latent hazards. The focus of regulation has changed as a result, and induced growing efforts to collaborate internationally to accommodate regulatory differences while safeguarding regulatory objectives.

Three changes in the organization of production are key. First is vertical disintegration: the decomposition of production into tasks—research and design, production of components or sub-systems, assembly of the final product—each accomplished by independent firms collaborating with many clients and linked to each other and the final producer in supply chains. The second change is the globalization of supply chains—locating production facilities where the costs of production are most advantageous, or to serve important markets with distinct characteristics. Initially seen as part of a strategy of cost-cutting, over time firms began to see that globalization facilitated innovation in manufacturing processes and product design. The reallocation of resources for these purposes gave rise to shocks and adjustment costs, shifting the loci of demand and making some economies abruptly uncompetitive for certain kinds of (usually low skill) operations. The third change was the adoption of just-in-time or continuous improvement production and design systems based on immediate error detection and correspondingly short learning cycles.

To participate in global supply chains firms have to have tight and continuous control over their production processes, and detect and correct problems before they affect the quality of the product or interrupt supply. Traditional mass producers sought to reduce errors downstream in the implementation of designs through exhaustive upstream planning: given enough time, all potential

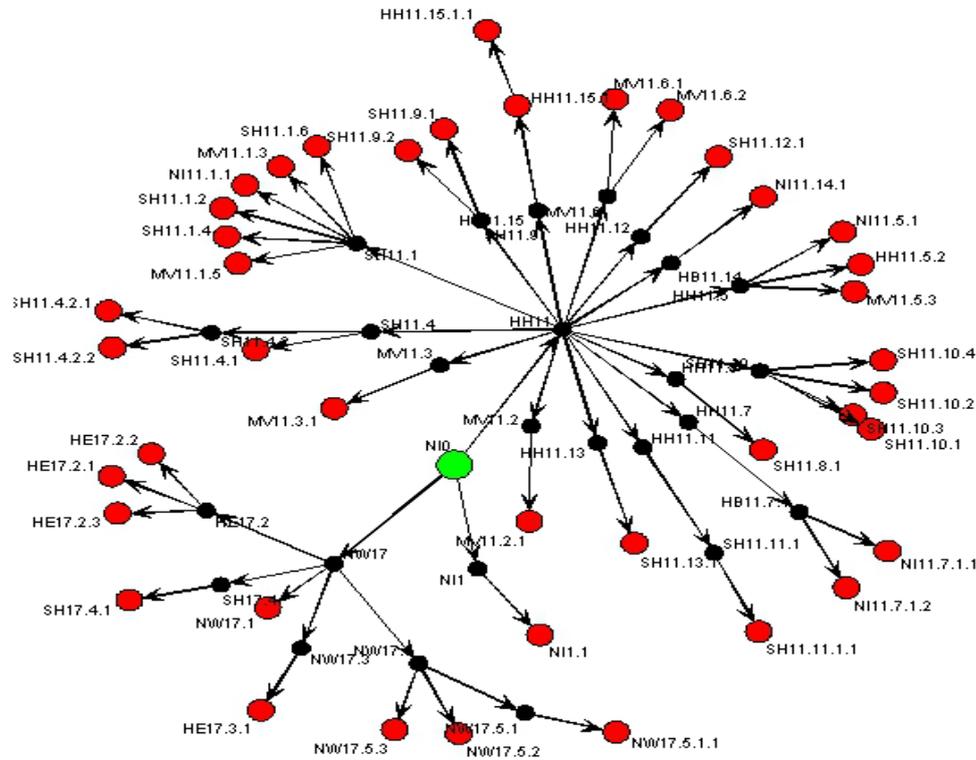
flaws could be identified and eliminated. As the pace of innovation accelerated and the trajectory of technological change became more uncertain firms began to collaborate at the outset on a suite of various new designs with key — first-tier — suppliers of critical components and sub-systems, using the strengths and weakness of each approach to inform evaluation of the others, and involving manufacturing in the these exchanges.

There were analogues to these changes in export-oriented agriculture, mining and services as well as manufacturing. Precision agriculture does away with plowing: seeds are inserted (through the biomass remainder of the previous crop) essentially one at time, to a depth and with a dosage of fertilizer adjusted to the conditions of each "pixel" of land. Results are monitored pixel by pixel, and planting conditions are adjusted to take account of micro-field conditions, unexpected effects of drainage patterns and so on. Open pit mining—excavation from the (mountain) top down – confronts rapidly increasing energy costs of recovering ore from the bottom and associated environmental burdens. The alternative is "continuous" or "subterranean" mining in highly automated "ore factories." The boundary between services and manufacturing is breaking down. Knowledge-intensive business service providers contract with manufacturing firms to lower production costs. The "service" provider supplies and operates (or monitors) custom-design equipment in the customer's plant and uses the continuing experience to suggest efficiency-increasing reorganizations in return for a share of the cost savings. In all these domains, as in just-in-time manufacturing, short learning cycles and continuous monitoring are used to raise productivity and exploit new opportunities; and the ability to demonstrate such control became a precondition for joining global supply chains.

These changes together made the economy more innovative. Independent suppliers learn rapidly by pooling their experience working with a wide range of customers; final producers learn by collaborating with such suppliers, and supply chains can be reconfigured to take advantage of shifts in the trajectory of technology or the development of markets. But constant innovation in products and processes and recombination of collaborative arrangements also increases the chances of introducing hidden, potentially catastrophic hazards in production, often through the unanticipated interactions of breakdowns in one part of a supply chain with the others. A recent example that attracted much public notice is a May 2011 outbreak of a lethal strain of Shiga-toxin producing e-coli in Germany and France. Starting with study of food consumption in outbreak clusters, the source of the epidemic was traced to a single horticultural farm in Lower Saxony, producing sprouted seeds—which are consumed fresh—and from there to a single lot of contaminated fenugreek seeds imported from Egypt (Rizzi, 2011). At the peak of the epidemic 200 cases were being reported a day. At the end of the outbreak, in early July, 4,000 persons had sickened and 50 died. Figure 1 shows the supply chain links by which the pathogen was propagated.

Another example is an early version of an innovative air bag supplied to General Motors. These functioned as intended, but interacted in unexpected ways with an incorrectly designed, fault-prone ignition switch, so that the airbags sometimes were deactivated just as crashes occurred. It took years of investigation to identify the source of the problem. Communication breakdowns between energy operating companies, drilling rig contractors and oil-field services suppliers caused offshore catastrophes such as the explosion and sinking of the Deepwater Horizon platform and have been implicated in a number of near misses that only accidentally did not cause ruinous accidents.

Figure 1: Supply Chain Propagation of E-Coli Contamination



(Red dots indicate outbreak clusters at the end of supply chains—restaurants, canteens, groceries, etc., black dots are distributors and the green dot indicates the sprout producer)

Incident reporting and meta regulation

Such inadvertent co-production of latent hazards in supply chains is forcing firms and regulators to address more openly than before their inability to anticipate potentially catastrophic hazards. Traditionally the presumption was that firms had a clear understanding of the risks they generated and the costs of mitigation, but the regulator did not; and firms thus had incentives to exploit this information asymmetry to escape costly requirements. Under uncertainty, however, both the regulator and the regulated firms are equally ignorant in the sense that neither can anticipate all potential hazards.

Many kinds of hazards of course can still be anticipated. As production sites become more heterogeneous, and uniform mitigation measures less useful, the regulator shifts from obligating firms to adopt particular solutions to requiring instead that they list the risks of proposed operations; explain how they will be mitigated; specify tests to verify the effectiveness of the countermeasures and methods for recording test results. But because under uncertainty all such ex ante precautions are fallible the regulator also requires institutionalization of incident reporting systems to register failures in products or operations that could be precursors to catastrophe; to correct their root causes; and to alert others in similar situations to the potential hazard and to ensure they take appropriate countermeasures.

We can call such systems of regulation under uncertainty recursive because each set of precautions becomes the input for devising a better set, or, drawing on American Pragmatism, experimentalist, because successive, inevitably incomplete understandings of hazards are revised in light of

shortcomings revealed by addressing them (Sabel and Simon 2011). As the regulator's role is to induce ground level actors to formulate and update risk mitigation plans no central rule-maker could possibly approximate, we can also regard such oversight authorities as meta-regulators (Sabel, Herrigel and Kristensen, 2017). Uncertainty and the overall reorganization of international production encourage such recursive meta-regulation by reducing information asymmetries--and thus firms' strategic advantage over the regulator--and increasing the returns to cooperative hazard avoidance among firms linked in supply chains and industries, with common interests in avoiding disasters that taint all (Gunningham et al, 2004). Since mastery of continuous monitoring and short learning cycles is a prerequisite for participation in supply chains, moreover, firms will already have the capacity to respond the new regulatory demands.²

Recursive regulatory systems on these lines are spreading rapidly. In the US, for instance, outbreaks of food borne illness transmitted by leafy greens (especially dangerous because, like sprouted seeds, they are often eaten raw) led California wholesalers in 2006 to create a regime—contractual, but enforced by a state inspectorate—requiring growers to conduct a hazard analysis of the critical control points (HACCP) review of their farms, identifying the points at which pathogens could enter the production process, and proposing and testing methods of avoiding or mitigating those risks. The Food Safety Modernization Act (FSMA) of 2010 codified this regime, extended it to many more products under the jurisdiction of the Food and Drug Administration (FDA) and established procedures for responding to breakdowns in controls. Convergent developments in the EU, again prompted by crisis (the outbreak of mad cow disease, among others), and involving the interaction of administrative action, legislation and private standards, also led to the de facto introduction of HACCP requirements in the early 2000s (Sabel and Simon 2011; Humphrey 2012).

Ex post monitoring was substantially strengthened even in the limit case of pharmaceuticals, where ex ante testing through rigorous randomized control trials is presumably most effective. Between 2004 and 2007 serious incidents revealed the FDA's incapacity to respond to information on the adverse effects of drugs it had approved for use. It also lacked authority to respond to warnings from foreign counterparts. In response the Food and Drug Administration Amendment Act of 2007 authorizes the FDA to require a drug producer to conduct a post-approval study or trial to evaluate the extent of known risks, to assess preliminary indications of serious risks, or to use available data to identify previously unknown risks (Pub. L. No. 110-85, § 905(c), 121 Stat. 949).

3. Interdependence and Regulatory Equivalence: Two Examples

In a world where inputs are globally sourced and products globally distributed recursive regulatory systems must encompass relevant trade partners to be effective: When globalized co-production of innovative products introduces latent hazards, national early warning and rapid response systems must be able to rely on one another's oversight of the linked producers. The steps leading to the Food Safety Systems Recognition Arrangement—a declaration of regulatory equivalency—recently signed by the FDA, the Canadian Food Inspection Agency (CFIA), and the Department of Health of Canada (HC) provide a first illustration of both the general tendencies prompting closer regulatory coordination and of how in practice exacting reciprocal scrutiny of regulatory ends and means establishes confidence that it can work.³

² Some interests of course cut the other way. Large, capable companies may prefer to build such systems internally, and with key suppliers, to collaboration with less able partners, or the risk of leaking proprietary techniques to competitors. Less capable firms may prefer to protest new regulatory requirements they may not be able to meet. Trade associations represent firms along the whole continuum of capacity, and so will be pressured by some members to help organize incident reporting, and by others to oppose it (Finger and Gamper-Rabindran 2013).

³ Space constraints prohibit a broader discussion of the 2011 US –Canada Regulatory Cooperation Council, which supports sector-specific regulatory cooperation initiatives of this type. See <https://www.canada.ca/en/treasury-board-secretariat/corporate/transparency/acts-regulations/canada-us-regulatory-cooperation-council.html>.

As the US was modernizing its food safety legislation Canada was doing the same: like the FSMA, the Safe Food for Canadians Act (SFCA) of 2012 mandated HACCP controls for the entire supply chain, incident reporting and traceability; and like the FSMA the SFCA anticipated close cooperation with the regulators in key trading partners. For both countries the determination proceeded in two steps: first a careful desk review of the partner's standards and procedures to ascertain how general organizational goals are translated into specific standards and routines, and to verify that the routines are in fact followed, then observation by field teams of the partner's audit of a range of food-processing plants and reference laboratories to understand how experience on the ground is translated into decisions and documents.

The FDA's desk review began with the development of an International Comparability Assessment Tool (ICAT) for assessing the robustness of a trading partner's food safety system in ten domains such as inspections and responses to outbreaks of food-related illness.⁴ There is, as the discussion of experimentalist regulation character of this form of cooperation suggests, an emphasis throughout on gauging the partner's ability to assess its own performance as a monitor, and improve accordingly. For instance a capable partner authority is expected to conduct "periodic self-assessments and quality assurance reviews" of its inspection and other programs to "determine areas or functions...that need improvement, to develop improvement plans and to establish timelines for implementing improvements;" similarly a robust food-safety system is expected to include periodic review of enforcement actions "to assess areas in need of improvement or corrective action," and update "policies and practices based on findings." The ICAT review also included presentations by Canadian officials at the national and provincial levels of case studies that, starting with source documents such as audit reports, documented the chain of decision making in particular product recalls and enforcement actions against firms, allowing the US reviewers to determine whether the information generated by the Canadian food-safety system was effectively used to serve its express goals. This extended desk review was then complemented by weeks of site visits in which a pair of three-member, interdisciplinary US teams (one in the West of Canada, one in the East) prepared to shadow Canadian inspectors in various processing plants by reviewing their training records, then observed the actual inspections, with attention to the records consulted and interactions with key managers. The entire process is meticulously described in a report in which the FDA reviewers recommend "a positive finding of system recognition"—current FDA lingo for a determination of regulatory equivalence.⁵

A second example illustrating the experimentalist governance of sectoral regulatory collaboration based is the 2011 Bilateral Aviation Safety Agreement (BASA) between the US and the EU. Civil aviation is among the most rigorously and successfully regulated industries: passenger fatalities per 100 million passenger-kilometres flown globally in commercial air transport fell from 0.8 in 1960 to 0.03 in 1990; since then it has ranged between 0.05 and 0.01. (Ratajczyk 2011) The framework for international regulation in the sector is provided by the International Civil Aviation Organization (ICAO), formed under the Chicago Convention on International Civil Aviation in 1944. ICAO establishes a "mutual acceptance" regime in which the certification by one signatory that equipment or flight crews under its jurisdiction meet ICAO standards is accepted by the others. Mutual acceptance would amount to agreement of regulatory equivalence but for three important qualifications. First, ICAO establishes minimum standards; more demanding jurisdictions such as the US, EU, Japan, China, Brazil or Canada insist on more rigorous ones. Second, innovation can outpace the capacity of

⁴ The following is based on the FDA's presentation of ICAT at <http://www.fda.gov/downloads/Food/InternationalInteragencyCoordination/UCM331177.pdf> We note in passing that the FDA based ICAT on the Manufactured Food Regulatory Program Standard, which it uses to assess the conformity of the state food-safety programs to national requirements—a reminder that "cooperative" federalism involving collaboration between national and subnational authorities may provide a reservoir of experience relevant to establishing international regulatory equivalence.

⁵ FDA, Report of the Systems Recognition Assessment of Canada, ND, at <http://www.fda.gov/downloads/Food/InternationalInteragencyCoordination/UCM503960.pdf>

ICAO's 191 member states to establish new standards, e.g., certifying designs for next generation equipment. Third, even when standards are available and acceptable for all parties, the capacity and willingness to engage in thorough conformity testing varies greatly among signatories, so that some reject the certifications of others. (Jennison 2013)

The result is that the states most insistent on higher civil aviation standards enter bilateral agreements. Through the mid-1990s the US established such agreements through exchange of diplomatic notes between the US State Department and counterpart foreign ministries authorizing the Federal Aviation Administration (FAA), the principal US regulator of civil aviation, to rely as much as possible on the certification system of the partner country authority. After 1996 the US began to enter BASA's, formal framework agreements in which the partner countries explicitly authorize their air safety authorities, so-called Technical Agents (TAs) to scrutinize each other's practices and agree that those found equivalent be treated as common technical implementation procedures (TIPs) for certification purposes. (Jennison 2013, 338-9) The EU-US BASA, covering principally the airworthiness of equipment from design to manufacture and maintenance as well as conformity to environmental standards is the most comprehensive and developed, with a formal governance structure for dispute resolution and allowing for possible extension to additional areas of air safety.

Like the ICAO, the EU US BASA establishes the principle of mutual acceptance, but in a specific sense: each party insists on compliance with its own, distinct standards, but agrees to rely "to the maximum extent practicable" (BASA, Annex 1, 3.2.4) on the other party's certifications that its products or services do so. Formally this means that an Airbus designed in the EU must be certified by the TA in the EU, the European Air Safety Agency (EASA) as meeting the airworthiness or "type" requirements of the TA in the US, the FAA, and that a maintenance station in the US repairing Airbus equipment must be certified by the FAA as meeting EASA standards.

Both in practice and by design this kind of reciprocal acceptance of compliance certification shades into collaboration and de facto recognition of the equivalence of many standards. With regard to maintenance stations, each authority determined before entering the agreement that the other's basic system for quality control and reporting was equivalent to its own, and listed separately in the maintenance annex to the BASA a small number (12 in the case of the FAA) of "special conditions:" "requirements [in the relevant regulation of either party] that have been found, based on a comparison of the regulatory maintenance systems, not to be common to both systems and are significant enough that they must be addressed." (EU US BASA Annex 2X.5) Thus EASA can certify a repair facility in the EU performing work on US equipment as meeting FAA requirements only if it complies with EASA's standards and meets the special conditions defined by the FAA. (Road Show, slide Agreement/Annex 2/Maintenance)

Similarly, in certifying the design of new aircraft types the authorities first determine the equivalence of their respective methods of ascertaining an organization's qualification to produce reliable aircraft designs and a manufacturer's capacity to maintain a reliable quality control system, and then provide for the exceptional cases where equivalence cannot be presumed. For example, early in the design process, when encountering novel, unregulated design elements (also called "special conditions") (Technical Implementation Procedures for Airworthiness and Environmental Certification XX) the FAA and EASA, separately or together, can issue new standards maintaining "a level of safety equivalent to that established in the [existing] regulations"; likewise, either authority can waive the obligation to conform with a particular certification requirement when differences are thought to be inconsequential, or find that different design features or test methods achieve an "equivalent level of safety." Only if a difference in the scope and stringency of requirements does not fall under one of these exceptions will one of the authorities find a "Significant Standards Difference" and, if further discussion does not resolve the issue, declare the difference a "validation item," meaning that it will test for itself whether the other party has made an adjustment that meets its standard. (Parker and Eisner, pp. 24ff)

Despite their long history of cooperation in the regulation of civil aviation—the FAA and the national aviation authorities of EU member states began collaborating in the 1980s, well before the creation of the EASA in 2002—the EASA and the FAA had to undertake an extensive program of reciprocal scrutiny, including numerous inspections of various kinds of facilities by each authority on behalf of the other, to determine which TIPs are indeed equivalent (Jennison 2013, 343). The BASA anticipates additional Annexes to cover further regulatory domains “when they agree that each Party’s civil aviation standards, rules, practices and procedures in any of the added areas of cooperation are sufficiently compatible to permit acceptance of approvals and findings of compliance with agreed upon standards made by one Party on behalf of the other.” (EU-US BASA Art. 5.B) The technical assessments needed to establish such confidence take from three to seven years (Jennison 2013, 339). Once TIPs in a given domain are found to be reciprocally acceptable the Agreement provides for the TA’s “periodic participation in each other’s internal quality audits, accreditation or standardization inspections...in order to maintain mutual confidence in each other’s systems.” (EU-US BASA, Annex 1, Art. 4.1.4) For the same purpose the authorities must promptly notify each other of aviation accidents or incidents concerning regulated products, and of any investigation “when mutual interests are involved” (EU-US BASA, Art. 8, 9)

The governance structure created by the Agreement encourages resolution of disputes arising under current arrangements and extension of regulatory cooperation. As its name indicates, the Bilateral Oversight Board (BOB), including representatives of the TA’s (and, for the EU, representatives of the member state regulatory authorities with continuing air safety jurisdiction) reviews progress under the BASA and sets the agenda for further reform. It is the final arbiter of disputes and has explicit authority to approve new, domain-specific annexes. A Certification Oversight Board, composed of representatives of the TA’s with expertise in airworthiness certification and environmental testing, and a Joint Maintenance Coordination Board, with TA representatives whose expertise is in repair, coordinate the technical discussions between the authorities in their respective domains and whenever possible resolve disputes arising from those discussions, referring only intractable ones to the BOB. This ensures that disputes are normally resolved at relative low levels of the administrative structure, by persons likely to have deep knowledge of the issues, rather than by higher authorities with limited understanding of current practices. (Gilson et al 2009) If a party, after fruitless pursuit of a remedy, loses confidence in a class of approvals issued by the other, it suspends acceptance of only that kind of approval, without disturbing the remainder of the agreement. Because of this severability each authority understands that the other could act on a major objection to a test or standard without fear of precipitating a political crisis; the credibility of this threat has a deterrent effect that reduces the chances that the power of partial suspension will actually be exercised.

Regulatory cooperation in the sense of enlarging the scope of reciprocal acceptance extends to consideration of deep changes in the nature of design standards. An example is the shift from design to performance-based standards in small aircraft, defined as fixed-wing aircraft weighing 19,000 pounds or less, regulated under Part 23 of Title 14 of the US Code of Federal Regulation (FAR) and Certification Specification (CS) 23, the counterpart EU standard. Some FAR Part 23/CS 23 aircraft are high performance; others are current models of traditional designs. Part 23 had not been revised systematically in some 30 years. The accretion of detailed safety requirements for high performance aircraft had over the decades retarded introduction of modern equipment such as cockpit GPS in the less sophisticated types. (Handheld GPS devices, not available when the relevant rule was written but carried aboard by pilots to compensate for the lack of onboard equipment substantially reduced accidents due to poor visibility, demonstrating the potential costs of regulatory inertia.) (Turner 2013) The FAA initially proposed subdividing the category into performance tiers, with distinct requirements for each group, and following its routine chartered an Advisory and Rulemaking Committee (ARC) of peer foreign regulators and industry stakeholders to consider its proposal. The ARC, however, rejected the idea of tiers, arguing that such distinctions too would quickly result in obstacles to continuing adjustment, and urged instead that performance standards be established by consensus among industry groups and regulators, with ultimate responsibility for determining the

airworthiness of particular designs remaining with the regulators. Representatives of EASA, together with representatives of Canadian, Brazilian, and Chinese authorities played a key role in formulating this alternative. The FAA agreed to the counterproposal which became the basis of a joint FAA-EASA rule-making exercise under Rulemaking Cooperation Guidelines adopted by both agencies under the umbrella of the EU-US BASA. The FAR Part/CS 23 revision is currently moving forward as a pilot project, evidence of both the expansive sweep of efforts to establish regulatory equivalence and their vulnerable novelty. (Parker and Eisner, 2016, 29-44)⁶

Parker and Eisner raise the possibility that civil aviation is exceptional given the role of ICAO as an international standard setter and the high degree of ex post liability for aviation accidents, and cautions against generalization. This is unpersuasive. Industry-specific organizations with the authority to set minimum standards for their members and to frame the agenda for further reform are today pervasive, if not ubiquitous. The Codex *Alimentarius* plays this role globally for food safety (helping to diffuse HACCP-based regulation), as does the International Maritime Organization in maritime safety, the Forest Stewardship Council (an NGO convening stakeholders to set standards, many of which are incorporated de facto in public regulation)⁷ in forestry products, and the International Conference on Harmonization in the area of pharmaceutical regulation, initially among regulators in the US, EU and Japan, and now globally. None of these organizations or the many others like them displaces national, bilateral or (mega-)regional regulation any more than ICAO displaces the FAA, EASA or the results of their cooperation under the EU-US BASA. In all these cases the “global” standard setter, whatever its actual scope, provides an invaluable forum for crystalizing consensus, exposing new ideas and initiatives to informed criticism, generalizing successes and at times calling attention to egregious cases of non-compliance with minimal norms. Whatever their exact role, these organizations are a common feature in the current international regulatory landscape.

Ex post liability is also becoming commonplace. The spread of incident reporting systems with concomitant obligations to ensure that serious defects can be traced to their source, together with the spread of just-in-time production methods makes it much harder to escape liability for negligence: faults are likely to have been registered in the course of production and failure, especially repeated and systematic failure, to take corrective action makes it difficult to disclaim liability. Immanent changes could well make liability all but inescapable. The trajectory of development in civil air regulation is again suggestive. Through the 1970s enhancements in air safety resulted mainly from technical improvements prompted by investigation of aircraft accidents. As safety improved and the accident rate declined, reports of incidents—events that could lead to accidents or only inadvertently did not—spurred improvements in equipment and organization. As the number of incidents declines further ICAO has suggested that emergent hazards are best detected by continuous, real-time monitoring of the performance of engines and aircraft, to identify the signatures of breakdowns before they occur. (Ratajczyk 2011; Jennison 2013, 349-50) This is not a singular development. A recent final rule on Blowout Prevention and Well Control of the Bureau of Safety and Environmental Enforcement—the oversight authority for the safety of US offshore drilling, organized in the aftermath of the sinking of the Deepwater Horizon platform—mandates closer real-time monitoring of offshore operations and rigorous incident reporting for the most crucial equipment. (81 Fed. Reg. 25,888. April 29, 2016) These examples may prove outliers, not forerunners. But for now we will regard them as illustrative of the broad changes reshaping product and production process regulation.

⁶ Earlier efforts to agree on performance-based design standards were vexed. In the late 1990s, for instance, ICAO tightened noise standards. US aircraft producers proposed to meet the decibel reduction performance standard by retrofitting part of the existing fleet with “hushkits.” The EU insisted on a design-based regulation that would have excluded the retrofitted aircraft. The US complained to the ICAO Council under the dispute-resolution provisions of the Chicago Convention and in response the EU effectively repealed the design-based rule in 2002. (Jennison 2013, 349 fn 60)

⁷ For example, firms meeting the standard are presumed to have complied with an EU legal obligation that importers exercise due diligence that timber they market has not been illegally logged. See Overdevest and Zeitlin, 2014.

4. Regulatory Coherence, Cooperation and Trade Agreements

Recent “21st century” trade initiatives involving high-income countries (such as CETA and the TTIP negotiations) seek to lower trade costs generated by distinct regulatory processes through “horizontal” provisions that apply to all covered sectors and types of property, and specific chapters on particular regulatory domains – such as SPS measures, TBT requirements and regulation of services. The overarching aim of horizontal chapters is to further regulatory coherence and cooperation. Although the terms are sometimes used interchangeably, they are usefully distinguished. Regulatory coherence refers to the consistent application within a given country of “good regulatory practices” (GRP), including transparency of decision making, consultation of stakeholders in the rule-making process, and careful attention to balancing the costs and benefits of proposed measures. What constitutes GRP has been the subject of extensive discussion in the OECD and APEC.⁸ Consistent application of GRP is presumed to increase the coherence of national regulation and to make regulatory outcomes across countries more compatible with each other. Regulatory cooperation, in contrast, refers to joint efforts to encourage regulatory exchanges, sector by sector, between countries, on the lines of the examples discussed in Section 3 above.

In practice regulatory coherence and cooperation are entangled. Greater regulatory coherence facilitates regulatory cooperation through convergence in procedural requirements in partner sectors in cooperating jurisdictions. Conversely, in advancing sectoral collaboration, regulatory cooperation helps clarify where there are shared process values and supports greater regulatory coherence within and between countries.⁹ Regulatory coherence is more top-down, while regulatory cooperation involves a piecemeal, bottom-up approach. Despite the entanglement, regulatory coherence and cooperation often fare differently in trade negotiations--efforts to establish regulatory coherence can raise controversial constitutional issues--and for that reason are best treated separately.

The Potential Incoherence of Regulatory Coherence

The values served by regulatory coherence as reflected in GRP norms arguably are constituents of democracy. Pursuit of regulatory coherence in a trade agreement defined as adoption of GRP principles can in the abstract be understood as an unexceptionable effort to make regulation more responsive to both domestic democratic concerns and those of foreign partners. But made more concrete, specifications of coherence can amount to imposition of the procedures of dominant countries that regard their own regime as best practice. For example, in the name of regulatory coherence, the US has sought to use trade agreements to impose features of its domestic administrative procedure such as notice-and-comment rule making, which obligates the regulator not only to invite public commentary on proposed rules but to justify the final decision in light of comments received, and comprehensive cost-benefit analysis of proposed rules by a central authority, on the model of the Office of Information and Regulatory Affairs (OIRA), the central authority for the review of Executive branch regulation in the US.¹⁰

⁸ See OECD (2013) and Basedow and Kauffmann (2016). US Chamber of Commerce (2015) defines regulatory coherence as “good regulatory practices, transparency, and stakeholder engagement in a domestic regulatory process.” National Center for APEC and APEC Business Advisory Council (2012, p.1) notes that regulatory coherence “is not about less regulation nor is it about more regulation. It is about improving the process by which ... economies develop regulations, generate best practices, and find common acceptable standards and timings in which to implement them. It doesn’t require loss of regulatory power or sovereignty. It results in more effective regulation that does not distort markets. Regulatory coherence fosters an optimal regulatory environment that allows the market to be more open, competitive, and innovative.

⁹ “Regulatory cooperation is the process of interaction between U.S. and EU regulators, founded on the benefits regulators can achieve through closer partnership and greater regulatory interoperability.” (US Chamber of Commerce 2015, July 16)

¹⁰ <https://www.whitehouse.gov/omb/oira>

Although consultations and ex ante assessment of the likely impacts and effectiveness of regulation are core features of GRP, the specifics can raise concerns. Thus, the (now presumably defunct) TPP committed the parties to “consider establishing and maintaining a national or central coordinating body” for the purpose of conducting a review of the impact of proposed regulation, including the relative costs and benefits of alternatives, and a justification of the regulator’s final choice. (TTP, Article 25.4, 25.5) This is closely modelled on US practice, and senior US trade negotiators left little doubt that their goal was to privilege US regulatory practices (and US exporters thoroughly accustomed to them).¹¹ (Weiss, 2016)

Even if parties are equally committed to GRP and expression of democracy, they are likely to organize democratic decision-making in general and regulatory rule-making in particular in different ways. Measures that increase regulatory coherence in one party may have no equivalent effect on the process of the other—if they can be implemented at all. For example, adoption of US style administrative procedures would have major implications for the EU, where the European Commission has a monopoly on the initiation of legislation, including “delegated acts” that can modify primary legislation in “non-essential ways.” (Parker and Alemanno, 2014, p.4). A US style notice-and-comment requirement on regulation would allow EU member states to shape draft rules, infringing the Commission’s monopoly on legislative initiative and undermining existing (“comitology”-based) procedures by which the member states already review acts of the Commission. (Chase and Pelkmans, 2015)

Quite apart from such problems of translation, moreover, the approach to regulatory coherence favored by US trade negotiators refocus attention on ex ante review just as ex post monitoring is becoming more important. In the US, notice-and-comment requirements are combined with the right of individual parties to go to court to claim regulators have not met their obligations. This has generated legal doctrines and practices that condemn administrators to act as though they can anticipate and defend a highly elaborate version of a proposed rule well before it enters into effect—indeed, before it has been subjected to initial public debate. Under the “logical outgrowth” doctrine, for instance, regulators are required to show that all the key elements of a final rule were anticipated in their initial proposal for a new rule. In principle this protects interested parties against shifts in the regulator’s intentions. But it assumes that debate can or should not introduce elements not anticipated when discussion began. Similarly the Cheney doctrine prohibits regulators from elaborating responses to challenges outside the notice-and-comment period. Both doctrines encourage regulators and regulated entities to avoid surprises by agreeing as much as possible in advance—or using every unanticipated inconsistency to frustrate decision making. (Wagner, 2016, p 112-13) The notice-and-comment period then becomes a rehearsal of familiar challenges and responses—a process so stylized and distant from reality that it has been likened to kabuki. (Elliott, 1992)

Our aim is not to draw conclusions about the strengths and weaknesses of US administrative law but simply to caution that US practice is not self-evidently a model for emulation. The fundamental point is that regulatory “coherence” is the property of an entire system of decision making, not of components in isolation. For this reason, agreement on regulatory coherence will most likely have to remain agreements in – high level – principle, if they can be consensual and useful at all.

Regulatory Cooperation without Commitment and Why It Can Work

Regulatory cooperation, involving many small, scattered efforts to address technical problems might seem innocuous in comparison with the type of top down regulatory coherence just discussed.

¹¹ The Statement of Administrative Action detailing changes in US domestic law that would be entailed by Congressional ratification of TTP stated laconically of regulatory coherence: “No statutory changes will be required to implement Chapter 25. U.S. laws and regulations are already in conformity with the obligations assumed under the Chapter.” (USTR, nd, p. 36)

Skeptics of regulatory cooperation nonetheless may find it menacing precisely because it is pervasive and diffuse to the point of near invisibility: to authorize regulatory cooperation is to invite foreign officials and stakeholders to sit in the innermost circles of domestic decision-making, where they can weaken rules and subvert national values all the more effectively because they act out of sight. Fears of this kind have animated opposition of civil-society organizations to deep trade agreements.

One source of such concerns is the potential for ISDS claims to encroach on domestic regulatory autonomy. ISDS originated as an extra-territorial system of arbitration, anchored in bi- and multilateral treaties, to protect foreign investors from predatory expropriation by states. By incremental steps it has moved towards a system permitting foreign investors to claim compensation for adverse regulatory changes, even if the impugned policy applies alike to both foreign and domestic investors and is decided under established and legitimate procedures. Although such claims are rarely successful, the very possibility of making them can have a chilling effect on regulation.¹²

In theory, general, hortatory commitments to further regulatory cooperation, entailing no specific obligations beyond what courtesy to a partner might already demand, might be manipulated for this purpose. Article 9 of the 2015 EU draft chapter on regulatory cooperation stated that “[t]he Parties shall participate constructively in regulatory exchanges;” and that, beyond early notification of consideration of trade-relevant measures (required in Article 5), “a Party shall provide to the other Party, if the other Party so requests, complementary available information related to the planned regulatory acts under discussion.” A regulated entity dissatisfied with a measure adopted by the partner jurisdiction might challenge its validity on procedural grounds before a dispute settlement body (contemplated in the 2015 TTIP draft), arguing that the “regulatory exchanges” failed to meet the constructive standard. Or it might ask for more and more “complementary” information, stalling a decision by the familiar tactic of “paralysis through analysis,” and raising the standard regulators will need to meet if subsequently challenged to demonstrate “constructive” participation in regulatory exchanges. Anticipating challenges of this kind, regulators might develop routine forms of pro forma, cooperation as an international version of Kabuki rule-making.

A revised 2016 EU draft proposal on regulatory cooperation eliminates these possibilities, shifting the focus away from pledges to introduce specified practices, presumed to be universally beneficial, to joint pursuit of broad values such as “good governance in the regulatory process” and “transparency, predictability and accountability.” Under Article 3 of the 2016 EU proposal “Each Party shall maintain internal coordination processes or mechanisms in order to foster good regulatory practices, including transparent planning, stakeholder consultation, impact assessments and retrospective evaluations of regulatory acts.” There is no general, free-standing obligation to cooperate in (trade-relevant) regulation: regulatory cooperation begins only when “regulatory authorities of both Parties have determined common interest.” Moreover, “[c]ooperation activities towards furthering regulatory compatibility” remain under the control of “the relevant regulatory authorities of both Parties.” (Article x.4).¹³ To ensure that pursuit of these broad goals cannot be blocked by challenges, Article 1.2(a,b) provides that “nothing in this Chapter shall affect the rights of each Party to...adopt, maintain and apply measures without delay, in accordance with deadlines under its respective regulatory or administrative procedures, to achieve its public policy objectives, in accordance with its regulatory framework and principles,” and more generally to “apply its fundamental principles governing decision-making in its jurisdiction, for example in the areas of risk assessment and risk management.” Cooperation once begun does “not oblige the Parties to achieve any particular regulatory outcome. (Article x.1) Regulators are in turn accountable to political oversight bodies and the public. Progress on regulatory cooperation must be “regularly reviewed at Ministerial level with full participation by

¹² A necessary condition for a chilling effect is that regulators are aware of ISDS mechanisms. Cote (2014) finds that Canadian health and environmental regulators were unaware of ISDS provisions in treaties adopted by Canada.

¹³ The EU Commission has stressed that “any new regulatory cooperation initiative must be based on the common interest of regulators.” (EU Commission, 2016, p.3)

the relevant regulatory authorities concerned”; stakeholder involvement—deemed “critical for the success of regulatory cooperation”—is to be assured through dialogue with “interested natural and legal persons, both at the Ministerial and working levels.” (Annex) Draft Article 11 specifies that provisions in the regulatory cooperation chapter cannot be invoked in dispute resolution procedures. In its commentary on the draft the EU Commission interprets these provisions together as assuring the inviolability of the EU’s “regulatory sovereignty” (EU Commission, 2016), and the right of each party to achieve the relevant public policy objectives “at the level of protection it considers appropriate, in accordance with its regulatory framework and principles.” (Article x1)

But in thwarting deregulatory abuse of regulatory cooperation perhaps these provisions simply reveal the irrelevance of this topic to comprehensive trade negotiations? Of what use is a horizontal agreement to support regulatory cooperation if it entrusts cooperation to sectoral regulators already empowered to engage in it, and explicitly frees them from the obligation to obtain any result at all?

To understand the utility of an agreement that simply creates a framework for cooperation without specifying an end result it is helpful to return to the discussion of uncertainty in Section 2. Increasing uncertainty changes the relation between regulators and regulated entities. Where the latter traditionally had superior information regarding the risks they faced and the possibilities of mitigating them, under uncertainty this information asymmetry is much reduced: neither the regulated entity nor the regulator can reliably anticipate all hazards, and thus they have reason to cooperate in identifying and countering them.

Regulatory cooperation between the US and Canada in food safety and between the US and the EU in civil aviation are instances of regulator-to-regulator cooperation of this type. In these cases there is no obligation to find regulatory equivalence; and if equivalence is established it must be re-established by periodic review. Such disciplined reciprocal scrutiny leads to protocols for mutual review of procedures and—as in the more mature case of civil aviation—governance institutions whose jurisdiction ranges from local dispute resolution to joint formulation of new rules. These protocols and governance institutions give each party warranted confidence in the robustness and adaptability of the other, increasing the breadth and depth of their shared understandings and making it increasingly less likely that either will exercise the right to unilaterally end cooperation. Long-term mutual reliance is the outcome of continuing mutual review, not of a commitment to collaboration or specific types of GRP.

Trade agreements can help support such desirable cooperation by building on elements of the 2016 EU draft TTIP chapter on regulatory cooperation and on the experience obtained with the Canada-US Regulatory Cooperation Council: by supporting the creation of horizontal institutions to further sectoral cooperation on these lines that entail the full involvement of the relevant regulatory authorities.¹⁴ Such horizontal coordination structures will create fora in which regulators and political oversight authorities monitor ongoing sectoral regulatory cooperation with an eye to identifying and quickly resolving problems, and explore the possibilities of extending cooperation to new areas. Where new forms of non-committal collaboration at the sectoral level create the scaffolding for sustained and searching cooperation, horizontal cooperation structures would become institutions for fabricating sectoral scaffolds.¹⁵ The elaboration of such horizontal support structures should be informed by sectoral experience in establishing regulatory equivalence under uncertainty.

¹⁴ The Annex to the 2016 EU proposal contains a “[p]laceholder for provisions on the institutional set up for regulatory cooperation under TTIP.” This set up will “ensure that proper priority is given to the implementation of specific or sectoral provisions in TTIP to pursue the cooperation initiatives agreed when TTIP is concluded,” and “support and facilitate the determination of [additional] areas of common interest.” The chief instrument of this support was to be an “effective coordination structure” designed “to monitor and enhance progress in ongoing cooperation activities and [regulators] to help to identify those initiatives that would benefit from” high-level political review.

¹⁵ For a similar approach stressing the need for participation of regulators in “horizontal” bodies see Bollyky (2012).

5. Regulatory cooperation, equivalence, globalization and democratic legitimacy

Even if cooperative pursuit of regulatory equivalence in “21st century” trade treaties or WTO agreements can globalize regulation of markets in stepwise fashion, respecting constitutional differences, the current backlash against agreements that smack of deepening free trade obliges us to ask whether this serves or threatens fundamental political and social goals. Is it compatible with democratic self-determination? Does it allow developing countries to acquire the capacities they need to advance? Such questions are major topics in themselves and we make no pretense of addressing them comprehensively here. Here we argue only that, at worst, stepwise globalization through cooperative determination of regulatory equivalence is compatible with these fundamental social and political values and, at best, can contribute to their realization.

Rodrik’s globalization trilemma brings the tension between globalization and the democratic nation state into sharp focus. Markets require complementary regulatory regimes specifying the characteristics that various products, and the processes used to create them, must possess to be merchantable. A corollary is that global markets require a global regulator. The incompatibility of globalization with the democratic nation state follows directly. For suppose, stylizing current facts, that the global regulatory regime is centered in a technocratic body, established by treaty among states the world over, but only remotely accountable to them. In this case the nation state persists, but democracy must defer to the technocratic decisions that foster globalization. The outcome is what Rodrik calls hyperglobalization: the condition where the uniformity of the global market approaches that of domestic ones. Imagine instead that the global regulator is democratically responsive to a global polity. Then we have globalization and democracy, but at the cost of the loss of the nation state as a repository of values. If we choose to safeguard democracy as we know it in the nation state, then we must forego economic globalization, because there is no global regulator for global markets. Hence the trilemma: we cannot have the advantages of democracy, the nation state and globalization at the same time.

But this trilemma is not a necessary outcome when the regulatory complement to markets is built sector by sector, through cooperative determination of regulatory equivalence on the lines described above. Under these conditions there is no distinct global regulator, democratic or not. Regulation emerges from discussion and reciprocal review of goals and procedures among national regulators, each subject to ongoing oversight by political authorities, with the power to approve final decisions and to reverse them when necessary. The outcomes will differ from those parties would have taken in autarky and reflect both economic interdependence and differences in values and institutional approaches. But unless decisions are truly sovereign only if taken in willful indifference to the circumstances and opinions of the rest of the world, it seems fair to say that cooperative determination of regulatory equivalence in trade agreements can create starting points for reconciling globalization with the nation state and democracy. As WTO members not party to a given trade agreement presumptively must be accorded “national treatment” if they demonstrate the equivalence of their own regulatory regimes, regulatory cooperation agreements might induce successive waves of (mutual) adjustment. Over time this may result in a global regime despite the absence of a truly global founding agreement. In the most favorable case, the extension of equivalence sector by sector and to additional parties would not just conserve the essentials of national democratic accountability amidst globalization but would, by regularizing rigorous reciprocal review and with it the possibility of questioning regulatory means and ends, make oversight more responsive and inclusive. Globalization under these terms might thus enhance national democracy.

Critics of hyperglobalization object not only that deep integration is democratically illegitimate. They claim also that it harmfully restricts the policy space that developing countries need to advance economically, or is infeasible (and undesirable) because social preferences differ too much. Rodrik observes that WTO prohibitions on discriminatory trade policies may preclude developing countries from acquiring technological capabilities. His solution is to establish a modern variant of the pre-WTO GATT regime: a system of world trade originally designed, under Keynes’ watchful eye, to be open in

the sense of resistant to the self-reinforcing cascades of protectionist, and ultimately beggar-they-neighbor policies that led to the closure of borders in the 1930s, yet highly and deliberately deferential to national policies for managing the business cycle and accelerating growth. A key, and quite plausible assumption, is that, excepting very large countries (which may be able to manipulate world prices for particular goods in their favor), “overly” protectionist measures affect, for better or worse, mostly the countries that choose them. Under this assumption open and inclusive democratic debate will distinguish protectionist measures that impose costs on the public at large to the benefit of entrenched interests from programs that credibly pursue broadly beneficial development strategies or defend widely held national values. To counter the dangers of hyperglobalization, therefore, Rodrik would allow nations to in effect vote themselves exemptions from perceived growth-inhibiting and otherwise unduly constrictive WTO disciplines, provided that, if challenged, a claimant can convince a WTO dispute resolution panel that its policy was indeed determined by democratic process. (Rodrik, 2011, p. 501 ff.)

For most of the 20th century it was presumed that technologically advanced skills eventually applicable to a broad range of activity developed only in industry. Agriculture, in contrast, was taken to be a traditional activity, whose productivity might from time to time be advanced by technological change—mechanization, for instance—originating outside it, while services were thought to be nontradable, low productivity activities governed by settled custom or stolid professional norms. Efficiency considerations were thought to require vertical integration: to be competitive a mass manufacturer of, for instance, automobiles, manufacturers had to be able to source all key components of the final product nationally. Under these conditions economic development required moving workers from low-productivity rural jobs to higher-productivity jobs in new industries and associated large, long-term and risky investments and mastering a wide range of new skills. To reduce the risks to levels that would attract private investors the state could protect the infant industries from foreign competitors by erecting tariff walls and encourage domestic purchase of key components through local content rules or by directly or indirectly subsidizing exports. Such industrial policies run afoul of the WTO requirement of nondiscrimination. It is this conflict that underpins Rodrik’s concern that hyperglobalization limits the possibilities for development.

The deep changes that have occurred in the organization of international production make concerns with the growth-limiting effects of WTO disciplines less relevant. Manufacturing production is no longer the uniquely privileged site for learning. The short, repeated and disciplined learning cycles characteristic of advanced industry are typical of (precision) agriculture, knowledge-intensive business services, and continuous mining, to give just three examples. Vertical integration within a country has given way to disintegration, with components manufactured and services provided by independent firms in different, often distant locales, and linked by supply chains—as has long been the case in agriculture and mining. Together these shifts change models of development and corresponding policies in ways that diminish the salience of the WTO’s hostility to local content rules and subsidies while increasing the importance of trade facilitation and satisfying product standards. Countries can enter world markets by improving the productivity and quality of activities in which they have a comparative advantage and leverage existing capacity in agriculture, ranching or mining by moving into higher-value niches in those domains, specializing in segments of international value chains or developing tradable services activities. Succeeding at this requires access to a variety of inputs, including infrastructure, and compliance with demanding international standards, public and private. The latter in turn requires coordination among firms, between them and the public sector (which will typically face internal coordination problems and capacity constraints of its own) and between the public authorities and their counterparts in potential trade partners. The traditional forms of trade protection characteristic of import-substitution or export-led growth are likely to be of secondary importance in these cases, if they are relevant at all. (Hoekman, 2014) The same is true of the case in which a developing country enters a manufacturing value chain, for instance by attracting investment by an assembler or component maker. The chief challenges are likely to be those associated with meeting standards (for quality, reliability of supply, and—increasingly—for demonstrating the

capacity for continuous improvement) (Nike, Sustainable Business Report, FY 2014/2015); and because entry into the industry is stepwise, not all of a piece, there is no incentive to limit imports of the final product, and every incentive to reduce tariffs on the intermediate goods which are inputs to domestic firms exporting to supply chains. Thus, development policy will not be inherently in tension with WTO disciplines.

Industrial policies in a number of countries have in recent years been designed not to enter new industries but to improve the performance of existing activities by creating fora in which private decision makers in particular sectors jointly address coordination problems with public officials responsible for providing relevant public goods, ranging from regulation to infrastructure to vocational and technical training. The focus is on sectors such as forestry (Peru), palm oil (Malaysia) and mining (Chile), long thought to be peripheral to the modern economy by virtue of being inhospitable to the kind of learning that economic progress requires. Yet the goal of these various public-private partnerships, beyond of course creating employment and increasing the competitiveness of the economy, is to acquire generalizable skills by applying advanced technologies and techniques of organization to these “traditional” areas of the economy. We can think of this strategy as development in place, in contrast to the older idea that development necessarily entailed movement from knowledge-poor to knowledge-intensive sectors. Of course, national governments may still legitimately want to use local content rules or other policies that might be challenged under the WTO disciplines, for instance to compel foreign partners to share key technologies. The growing centrality of regulatory issues to development and trade does not imply it is not prudent to ensure a government can take action to restrict trade. However, the WTO already provides substantial scope for states to do so if they desire.¹⁶

Consider finally the ways in which trade agreements that support regulatory cooperation can accommodate and even encourage redistribution in response to the dislocations that they may themselves provoke. Let us take fiction for fact and assume that neither economic interdependence nor disparities of market power allow powerful countries to coerce weaker ones into unfairly lopsided agreements, and further that sovereign authorities always act in the interests of their people, not a predatory elite. Under these circumstances, trade agreements are contracts freely entered by the signatory parties; citizens of one signatory arguably have no obligations to the citizens of others (or for that matter the world at large) beyond respect for terms of the agreements;¹⁷ and redistribution in response to trade dislocations is a purely domestic matter. Even taking all this for granted, cooperation that supports the stepwise determination of regulatory equivalence is naturally entwined with consideration of redistributive issues. Determination of regulatory equivalence and the various forms of regulatory cooperation with which it is associated, is an ongoing process, not a discrete decision. The more regulators cooperate, the more extensive and searching their cooperation becomes: *ex ante* review of similarities and differences flows into continuing *ex post* review through reciprocal inspections, co-development of rules and procedures and the like. At every stage in this process, *ex ante* and *ex post*, a party struggling to comply with requirements can request technical assistance from counterparts. Since difficulties in compliance are very likely to go hand in hand with problems in adjusting to the new regime, and hence with costly dislocations, requests for technical assistance arising naturally from continuing review of operation of the (sectoral) agreement in practice signal and

¹⁶ Small developing countries have significant *de jure* leeway to apply policies that are not available to developed countries as well as *de facto* discretion to impose policies that may violate WTO rules because they will impose only small externalities on trading partners. See, e.g., Hoekman (2005).

¹⁷ For the claim that citizens of various countries have no obligations to one another beyond a “humanitarian minimum,” except those assumed through contracts among sovereigns, see Nagel (2005). For the claim that interdependence creates additional obligations, including the duty to acknowledge those with whom we are interdependent, see Cohen and Sabel (2006).

afford occasion to discuss unanticipated disruptions, and, implicitly at least, measures to correct them by redistributing the gains from trade.¹⁸

It is possible to go further and include dislocation and countermeasures as a distinct item on the agenda of periodic review of sectoral regulatory cooperation under the umbrella of implementation of trade agreements. Doing so is likely to catalyze domestic debate about redistribution from trade winners to losers and link that debate to requests for technical assistance and other forms of support from abroad: Anticipation of periodic review of the distribution of the costs and benefits of trade, in an official forum, is likely to encourage injured domestic groups to mobilize, petitioning the authorities at home and abroad with bills of grievances and possible remedies. To ensure that these concerns receive attention it would be possible to go further still and, taking a page from the civil aviation BASA, allow parties to unilaterally suspend (severable) elements of trade or regulatory agreements when efforts to redress unexpected deficiencies have failed. By backward induction the prospect of recurrent mobilizations, resting firmly on the credible threat of suspension when efforts at redress fail, would lead regulators and trade officials to take possible redistributive effects directly into account in the elaboration and development of the trade regime.

We do not imagine that such mechanisms can completely mitigate the disruptive effects of trade. Our claim is only that trade agreements incorporating regulatory cooperation are by their nature more hospitable than traditional ones to reconciling globalization with national democracy and accommodating industrial policies in an open trade regime. We also recognize that cooperation seeking to establish areas where regulatory equivalence may exist – or come to exist – is conditional on end goals and social preferences being similar. Clearly this is not the case for some areas of regulation – EU citizens’ worries about hormones in beef or use of GMOs come to mind, technologies that US consumers and regulators accept to a much greater extent. In other instances the US is more risk averse and pursues greater precaution. The point is that pursuit of and support regulatory cooperation in trade agreements can and should be fully compatible with agreement to disagree on such matters, but that there is nonetheless great value in establishing institutions that encourage regular dialogue and interaction between the relevant regulatory authorities. This may over time result in changing perceptions – or it may not. In practice, the sectoral experiences that were briefly described in Sections 2 and 3 above suggest that prospects for joint learning and convergence in product and process regulation may well be significant.¹⁹ In any event, it seems to us that pursuing this path holds greater promise for improving joint welfare over time than one that is premised on the existence of fundamental (immutable) differences in preferences across countries.

6. Trade Agreements Old and New

We are at an interregnum in trade regimes. The old has given way, the new is incomplete and fragile. It may be that the old will return with a vengeance, as seems to be the preference of the Trump Administration. Whatever the next few years hold in store, the better we understand the origins and possibilities of regulatory cooperation, the better able we will be to benefit from the opportunity it creates to reconcile global trade and national democracy while creating new forms of political association.

From an economists’ perspective the purpose of trade agreements is to reduce distortions in relative prices, thereby increasing the welfare of all participating countries, and/or to provide a mechanism by which individual signatories can credibly commit to implementing policy reforms that improve the efficiency and competitiveness of their respective economies, but which otherwise would be thwarted

¹⁸ The new WTO Agreement on Trade Facilitation illustrates the feasibility of designing cooperation in a way that governments can self-determine when and what types of measures to implement and to obtain assistance if they deem this to be necessary. See e.g., Hoekman (2016).

¹⁹ See also European Parliament (2016) for a similar conclusion.

by domestic interests that benefit from protection. In both conceptions, trade agreements involve negative integration: restraining governments' ability to interfere with the free exchange of products. Enforceable policy commitments are a device for overcoming international and national prisoner's dilemmas.

The new generation trade agreements is in contrast principally intended to advance positive integration: the regulatory capacity—a necessary complement to markets—that ensures that the terms of exchange respect the values of the trade partners. The principal problem here is not to reduce the scope to pursue market distorting policies but to support learning about where preferences are similar regarding end goals and what types of policies could enhance the parties' welfare given differences in their values. The purpose of trade agreements becomes institutionalizing a process that encourages joint exploration of those differences and the possibilities of—and limits to—reconciling them, in the process lowering trade costs for firms, where agreement permits. As noted above, this is not to deny that preferences may differ or to insist that in such cases regulatory convergence is desirable. Even where preferences are similar, there will invariably be different ways to pursue shared end goals.

This focus on social preferences and regulatory regimes has important implications for the design of international trade agreements, and the organization of the negotiations intended to achieve them. The chief object of negotiation in traditional trade agreements was to reduce tariffs and other discriminatory policies. Trade agreements were an instrument through which governments sought to enhance national welfare by negotiating “mutual disarmament” and undoing some of the efficiency losses generated by trade policies. This led in each country to a division between sectors and firms favoring exports and sectors and firms competing with imports and favoring trade barriers. Negotiations consisted of elaborate horse trades within and among countries, where export interests confronted import-competing interests. To protect against lobbying by potential losers, negotiations were entrusted to expert cadres of officials, with the details of requests and offers made in the course of the negotiation process kept secret from the public, with only the resulting agreements voted on as packages in legislative proceedings on an up or down basis. Parliaments could (and sometimes do) reject a deal but cannot amend its parts. The rules thus negotiated and approved were enforced by court-like tribunals, deciding whether accusations by one signatory of violations by another are justified.

This process respects the formalities of democratic sovereignty: the chain of delegation running from the sovereign people through the government to the trade negotiators; the chain of authorization running back; and judicial control of the agreements. But democratic validation in each country often is relatively weak. The agreement among signatories rests on the thin consensus of the treaty text, with scant provision for ongoing oversight beyond formal complaints of rule violations.

While this *modus operandi* is still essential to residual, cooperative efforts to address explicitly discriminatory policies, such as those still protecting certain service sectors in many countries, it is unsuited to devising new-vintage trade agreements where regulatory differences are a focal point. Such agreements confront the accountability deficits that has made trade itself seem a threat to national self-determination, even an instrument of alien interests. We have argued that successes in regulatory cooperation improbably create the possibility to overcome this deficit by setting the stage for a new kind of framework agreement that is democratically accountable yet accommodates national diversity and the needs of development.

In their origins and operation these new trade agreements respect the substance of democracy—transparency, requirements for reason-giving and accountability to the public—more than the formalities of delegation of sovereign authority. Insofar as the purpose of agreements is to reduce some of the costs arising from differences in regulation, sector by sector, advances in one area of regulation cannot be traded against advances in others. Nor should they be: there is no need for horse trades, nor for a permanent cadre of trade experts to elaborate them, nor any public—regarding reason to keep negotiations secret. The openness required when pursuing regulatory cooperation becomes an

enduring feature of the regime created by the new-vintage trade agreements. Their aim is not (and should not be) to fix definitive rules once and for all, but to create fora for the participation of regulators, firms and civil society groups in the elaboration of norms. This process is aimed at least as much at deciding what the rules should be as at determining whether they are correctly applied. Calling this complex process enforcement, which connotes only effective application of rules, is a misnomer. Because elaboration of norms is by mutual review and inspection, first to establish the equivalence of regulation, then to periodically validate or reconsider these decisions, it is far more revealing and affords greater opportunities for accountability than the enforcement proceedings that are central in the traditional regime once a trade deal has been concluded. Seeing one's own values and institutions in the light of partners' evaluations of them becomes a way of heightening domestic political oversight.

Trade agreements that encompass frameworks for regulatory cooperation along the lines discussed in this paper break with the fiction that sovereignty is equivalent to autarky. By acknowledging the depth and dynamics of integration, and creating fora for openly discussing it, sovereignty can become synonymous with the assertion of democratic control over interdependence, freeing democracies from the Hobson's choice between limited, shallow integration that respects national autonomy at the expense of gains from trade foregone and global uniformity that secures the gains of cooperation but effaces national difference. The EU's TTIP proposals on regulatory cooperation made important steps in this direction, authorizing extensive sectoral cooperation, but subjecting it at every step to deliberate political control ensuring that regulators in fact exercise the powers delegated to them under continuing democratic oversight. But, conditional on these safeguards, much more should be done to actively support regulatory cooperation at the sectoral level, starting with frequent, regular peer reviews of progress and stalled discussions to accelerate the former and possibly unblock the latter, and developing, in light of those reviews, the capacity to provide technical support. The single most important measure to increase political accountability and at the same time facilitate effective collaboration is to encourage active, inclusive, and continuing stakeholder engagement in all phases of regulatory cooperation. Careful study of successful cases of sectoral cooperation can point the way.

The developments discussed in this paper do not depend on the prospects of mega-regional PTAs or deeper cooperation in the WTO. International regulatory cooperation, often between peers and with increasing frequency between high and middle-income countries, will proceed because such cooperation is to the mutual advantage of many parties. Those with shared interests can act on them, as they already do, in the absence of a hospitable, encompassing trade regime. But spontaneous regulatory cooperation prompted by deep changes in the global organization of production will be less fragile and politically fraught if they can be embedded in trade agreements that authorize regulatory cooperation and, recognizing the changing relation between sovereignty and interdependence, explicitly subject it to corresponding forms of democratic control. History teaches that the cunning of reason, in creating new modes of self-interested cooperation, also enlarges our potential for democratic self-determination. But history teaches as well that we can only make use of these opportunities by re-imagining our relations to one another and the world and thus, deliberately or not, rethinking democracy.

References

- Basedow, R. and C. Kauffmann, 2016. "International Trade and Good Regulatory Practices: Assessing The Trade Impacts of Regulation," OECD Regulatory Policy Working Paper 4.
- Bollyky, T. 2012. "Regulatory Coherence in the Trans-Pacific Partnership Talks," in C. Lim, D. Elms, and P. Low (eds.), *The Trans-Pacific Partnership: A Quest for a 21st Century Trade Agreement*. New York: Cambridge University Press, 171-86.
- Chase, P. and J. Pelkmans. 2015. *This time it's different: Turbo-charging regulatory cooperation in TTIP*. CEPS Special Report No. 110.
- Cohen, J. and C. Sabel, 2006, "Extra Rempublicam Nulla Justitia?," *Philosophy and Public Affairs* 34 (2):147-175.
- Cote, C. 2014. *A Chilling Effect? The impact of international investment agreements on national regulatory autonomy in the areas of health, safety and the environment*. LSE PhD thesis.
- Drezner, D. 2007. *All Politics Is Global: Explaining International Regulatory Regimes*, Princeton University Press.
- De Ville, F. and G. Siles-Brügge. 2016. "Why TTIP is a game-changer and its critics have a point," *Journal of European Public Policy*, 1-15. <http://dx.doi.org/10.1080/13501763.2016.1254273>
- Elliott, D. 1992. "Re-Inventing Rulemaking," 41 Duke L.J. 1490
- European Commission. 2016. *Regulatory cooperation in TTIP: An introduction to the EU's revised proposal*. March 21.
- European Parliament, 2016, "FTAs and patterns of risk regulation in the EU and the US," Policy Department (EP/EXPO/B/INTA/2016/03).
- Finger, S. R. and S. Gamper-Rabindran. 2013. "Mandatory disclosure of plant emissions into the environment and worker chemical exposure inside plants," *Ecological Economics*, 87(1): 124-36.
- Gilson, R., C. Sabel and R. Scott. 2009. "Contracting for Innovation," *Columbia Law Review*, 109(3): 431-502.
- Gunningham, N., R. Kagan and D. Thornton. 2004. "Social license and environmental protection: why businesses go beyond compliance," *Law & Social Inquiry*, 29(2), 307-41.
- Hoekman, B., 2005, "Operationalizing the Concept of Policy Space in the WTO: Beyond Special and Differential Treatment," *Journal of International Economic Law*, 8(2): 405-24.
- Hoekman, B. 2014, *Supply Chains, Mega-Regionals and Multilateralism: A Road Map for the WTO*. London: CEPR Press.
- Hoekman, B. 2016. "The Bali Trade Facilitation Agreement and rulemaking in the WTO: milestone, mistake or mirage?" In J. Bhagwati, P. Krishna and A. Panagariya (eds.), *The World Trade System: Trends and Challenges*. Cambridge, MA: MIT Press.
- Humphrey, J. 2012, "Convergence of US and EU Production Practices Under the New FDA Food Safety Modernization Act." *The World Economy* 35(8): 994-1005.
- ICAO, 2007. "Outlook for Air Transport to the Year 2025," Circular Cir. 313 AT/134, September.
- Jennison, M. 2013. 'The Future of Aviation Safety Regulation: New US-EU Agreement Harmonizes and Consolidates the Transatlantic Regime, but What is the Potential for Genuine Regulatory Reform?' *Air & Space Law* 38, no. 4&5: 333-350.
- Nagel, T. 2005. "The Problem of Global Justice," *Philosophy & Public Affairs* 33(2): 113-47.

- National Center for APEC and APEC Business Advisory Council. 2012. *Strategic Framework for Regulatory Coherence in APEC*. Singapore: APEC Secretariat.
- OECD. 2013. *International Regulatory Cooperation: Addressing Global Challenges*. Paris: OECD.
- OECD, 2017, *International Regulatory Cooperation and Trade: Understanding the Trade Costs of Regulatory Divergence and the Remedies*. Paris: OECD.
- Overdeest, C. and J. Zeitlin. 2014. Assembling an Experimentalist Regime: Transnational Governance Interactions in the Forest Sector. *Regulation & Governance*, 8, 22-48.
- Parker, R. and A. Alemanno, 2014. *Towards Effective Regulatory Cooperation under TTIP: A Comparative Overview of the EU and US Legislative and Regulatory Systems*. CEPS Special Report No. 88.
- Parker R. and N. Eisner. 2016. "Learning from Experience: Three Case Studies in International Regulatory Cooperation," Report Prepared for the European Commission, May 12.
- Ratajczyk, M. 2011. 'Regulatory Framework for a 'Performance-Based' Approach to Air Safety Management in the European Union'. *Air and Space Law* 36(6): 401–426.
- Rizzi, V. 2011. "The source of the outbreak (Trace back/Trace forward investigations) and scientific advice," presentation to the 6th Annual Workshop of the National Reference Laboratories for E. coli in the EU, Rome. November 4. Retrieved from http://www.iss.it/binary/vtec/cont/Valentina_Rizzi.pdf.
- Rodrik, D. 2011. *The globalization paradox: democracy and the future of the world economy*. New York.
- Sabel, C. and W. Simon. 2011, "Minimalism and experimentalism in the administrative state," *Georgetown Law Journal* 100(1): 53-93.
- Sabel, C., G. Herrigel and P. Kristensen, 2017, "Regulation under uncertainty: The coevolution of industry and regulation," *Regulation & Governance*, At [doi:10.1111/rego.12146](https://doi.org/10.1111/rego.12146).
- Smismans, S. 2016. "Regulatory Procedure and Participation in the European Union," in F. Bignami and D. Zaring (eds.), *Comparative Law and Regulation* (pp. 129-156). Cheltenham, UK: Edward Elgar Publishing.
- Turner, A. 2013. "FAA touts safety boost at half the cost," March 7. At <http://www.airtrafficmanagement.net/2013/03/faa-touts-ga-safety-boost-at-half-cost/>.
- US Chamber of Commerce. 2015. *Regulatory Coherence and Cooperation in the TTIP*. Retrieved from: <https://www.uschamber.com/speech/regulatory-coherence-and-cooperation-ttip>.
- Wagner, W. 2016. Participation in the U.S. Administrative Process. In F. Bignam & D. Zaring (eds.), *Comparative Law and Regulation* (pp. 109-128). Cheltenham, UK: Edward Elgar.
- Weiss, J. 2016. "The Regulatory Coherence Chapter of the Trans-Pacific Partnership Agreement: Making the Link Between Adherence to Good Regulatory Practice Principles and Promoting International Trade and Regulatory Cooperation," *Yale J. on Reg.*: Notice & Comment. <http://yalejreg.com/nc/the-regulatory-coherence-chapter-of-the-trans-pacific-partnership-agreement-making-the-link-between/>
- Young, A. 2015. "The European Union as a global regulator? Context and comparison," *Journal of European Public Policy*, 22(9), 1233-52.
- Young, A. 2016. "Not your parents' trade politics: the Transatlantic Trade and Investment Partnership negotiations," *Review of International Political Economy*, 23(3): 345-78.

Author contacts:

Bernard Hoekman

Robert Schuman Centre for Advanced Studies, European University Institute

Villa Schifanoia, Via Boccaccio 121

I-50133 Florence

Email: Bernard.Hoekman@eui.eu

Charles Sabel

Columbia University Law School | 435 W. 116th Street | NYC, NY 10027

Email: cfs11@columbia.edu