

Varieties of Transnational (Re)Regulation

Tony Porter
Department of Political Science
McMaster University
Hamilton ON L8S 4M4 Canada
tporter@mcmaster.ca

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Contemporary transnational regulation has become increasingly varied in its geographic scale, its mix of public and private-sector elements, and in its reliance on both hard formal rules and soft informal rules. In the past the only international rules that were seen as important were formal international law, and even those were often regarded as ineffective, especially by realist international relations scholars who emphasized the motivation and power of states to pursue competitively their self-interest. Today it is increasingly recognized that global governance consists of a wide variety of types of rules, including formal laws, codes, best practices, self-regulatory arrangements, and many others.

How best can we understand this variation in the form taken by transnational regulation? Two very different approaches to this question will be explored in this paper. The first draws on rational choice theory and has two main variants. The first variant seeks to explain variation in institutional form as arising from the differing cost effectiveness of particular institutions at solving particular problems. For instance a weak organizational arrangement may be sufficient for solving a coordination problem, such as when actors merely need to choose a new technical standard from a set of potential standards that have no differential cost effects and no incentive for non-compliance for the actors. In contrast a stronger organization may be needed to solve cooperation problems that have the character of a Prisoner's Dilemma game in which each actor has an incentive to exploit the others through non-compliance. The second rational choice variant, which is consistent with state-centric realist international relations theories, traces outcomes to the distribution of capabilities across actors. In this model, for instance, one may expect the form taken by transnational institutions to reflect the interests of the most powerful states. These two variants of rational choice theory emphasize efficiency and power respectively, but in many rational choice theories both are mixed together.¹

A second and quite different approach can be labeled an "assemblage" approach. Originally used in art (Seitz, 1961), an assemblage is created out of disparate elements, each of which has meanings or purposes that might be quite unrelated to the other elements, but which together are brought into a new relationship with one another to create an arrangement with its own distinctive meaning or purpose (DeLanda, 2006). Sassen (2006) and others (Ong and Collier, 2005) have begun developing the notion of

¹ On these two approaches in an international relations theory context see Hasenclever, Meyer and Rittberger, 1997.

global assemblages in which elements of nation-states can be plugged into new global arrangements while retaining linkages to their previous national functions. Assemblages integrate expressive (or ideational) and material factors in semi-autonomous multi-level spheres and networks of institutionalized activity. In contrast to rational choice theory, where the starting point is the choosing actor operating within an environment, the constitution of which is exogenous to the approach, the assemblage approach examines the way that what is taken as environmental in rational choice theory is brought together from existing elements. This bears some resemblance to sociological institutionalism², except that in the assemblage approach set out here, which also draws on actor-network theory, the material and non-human are given more prominence. This also sets this paper's formulation of the assemblage approach apart from work that otherwise bears some close similarity to it, such as Braithwaite and Drahos (2000).

In the next section these theoretical points, and a way to operationalize them, are developed further. In the subsequent section three cases are presented in order to assess the relative performance of the two approaches in explaining variations in organizational form. These cases are vehicle safety, unauthorized music file-sharing and personal credit (including sub-prime mortgages). As the sections that discuss them in more detail will show, the cases exhibit wide variation in the form taken by transnational regulation.

Rational choice and assemblage approaches

In this section I start by further setting out rational choice theories that can be used to explain variation in the form of transnational regulation, which include considerations of both efficiency and power. I then set out the assemblage approach. At the end of this section I consider how these two approaches can be operationalized in a way that allows their relative contributions to the study of particular cases to be compared and assessed.

Rational choice and organizational form

Three efforts to explain variation in organizational form are especially useful and will be discussed in turn. The first two were special issues of *International Organization* on legalization (Goldstein et al, 2000a, especially the contribution by Abbott and Snidal, 2000) and on rational design (Koremos et al, 2001) respectively. The third effort is Koenig-Archibugi and Zürn (2006) especially the chapter by Kölliker (2006). It is not possible to discuss all the hypotheses and relationships that these articles discuss, but an effort has been made to select ones that are most directly relevant to understanding variation in the organizational form of transnational regulation.

The volume on legalization defined it as varying along three dimensions: “the degree to which rules are obligatory, the precision of those rules, and the delegation of some functions of interpretation, monitoring and implementation to a third party” (Goldstein et al, 2000: 387). Abbott and Snidal (2000) argue that “legalization is one of the principal methods by which states can increase the credibility of their commitments” (p. 426).

² For a sociological institutionalist approach to transnational regulation see Djelic and Sahlin-Andersson, 2006.

They hypothesize that “states should use hard legal commitments as assurance devices when the benefits of cooperation are great but the potential for opportunism and its costs are high” and “when noncompliance is difficult to detect” (p. 429). They also suggest that states compare the additional contracting costs involved in negotiating more legalized institutions against the reduction in other costs, such as transactions and compliance, that result once the agreement is established. The value of flexibility of non-legalized institutions in conditions of uncertainty, and of independence for the actors involved, are also important. In a more power-oriented vein, Abbot and Snidal also suggest that credible commitments can also be valued by executive officials who wish to fend off competing power centers within the state (430) and that powerful states will favor legalization when it is advantageous to them (for instance they have large legal staffs) or “when they can be confident that the agreements will track their preferences” (p. 433).

The volume on rational design (Koremos et al, 2001) focuses on five dimensions of variation in organizational form: membership (including state vs. non-state membership); scope (what issues are covered); centralization; control (eg. majority voting vs. unanimity) and flexibility. To explain these they look at distribution problems, enforcement problems, number of actors and the asymmetries among them; uncertainty about behavior, uncertainty about the state of the world, and uncertainty about preferences. They set out a series of conjectures that are too numerous to list fully here, but the ones about centralization are illustrative: greater centralization is expected to be correlated with uncertainty about behaviour; uncertainty about the state of the world; the number of participants; and the severity of the enforcement problem.

Kölliker uses public goods theory to explain variation in publicness (ie. the mix of public and private), delegation and inclusiveness of governance arrangements. For instance if there are cross-sectoral externalities or if there are collective action problems associated with non-excludable goods then public arrangements are more likely. Delegation to an organization of the implementation of rules is more likely in distributive arrangements where there may be economies of scale in centralizing production, and less likely in regulatory arrangements where implementation depends on constituents and addressees, who may be identical. Arrangements involving non-excludable goods are likely to be more open in order to include more potential free riders while excludable goods are likely to be more closed.

While rational choice theories generate more hypotheses about institutional variation than are feasible to explore in a single paper, we may summarize the approach as predicting that any particular institutional form will be determined by some combination of the relative power of the actors supporting it, the character of the institution’s environment, and the character of the task for which the institution is designed, with the most efficient form for carrying out that task winning out over other forms. The direct analysis of environmental factors is relatively limited, focusing mainly on uncertainty, although one can treat environmental factors as subsumed within the character of the task to some degree.

Assemblages and organizational form

Drawing selectively and loosely from the uses that have been made of the idea of an assemblage it is possible to set out several distinguishing features of an assemblage approach that set it apart from rational choice and other theories.

First, in contrast to rational choice theory, an assemblage approach foregrounds or endogenizes clusters of organized activity that can be brought into relationship with one another to create a new assemblage without necessarily dissolving the older clusters or their relationship to other assemblages. This process of assemblage can be the result of creative human initiative that anticipates and then builds the newer assemblage from the older clusters but it can also result from those older clusters moving into closer proximity with one another because of the developments in other assemblages in which they are involved—without conscious human anticipation of the new assemblage that might result from this proximity. The first of these is not incompatible with rational choice theory, but the second is. This emphasis on disaggregated clusters also differs from structural or systemic theories that seek to trace events and institutions to properties of very large scale phenomena such as the world economy, capitalism, world culture or globalization.

Second, also in contrast to rational choice theory, an assemblage approach would foreground or endogenize the independent contribution of the expressive (language) and the material world to explanations. In rational choice theory both expression and material objects are instruments to be wielded by choosing actors, or, in the case of the material world, an external environmental factor, the constitution of which is exogenous to the approach. In contrast the expressive and material dimensions are both defining and central features of assemblages. The role that expression can play is nicely illustrated by Braithwaite and Drahos (2000), which resembles the assemblage approach set out here. In their work principles and models can be constructed and then sit inactive until an amenable configuration of actors, events or institutions arise, at which point the principles or model can be mobilized in ways that create new sets or relations—new assemblages.

Latour's (2005) use of assemblage in his development of actor-network theory is especially useful in distinguishing the role of the material in an assemblage approach. Latour has brought the role of the non-human into the center of his approach. Latour criticizes the common tendency to explain social developments by imagining unobservable causal links to social categories without tracing the long chains of action that would be needed to bring such links about. These long chains of action include both humans and non-humans, such as technical artifacts, written instructions, or microbes. Sometimes the humans manipulate the non-humans but the non-humans can also independently affect the chains of action, a similarity captured by his use of *actant* to refer to both. Both humans and non-humans can be either mediators, which modify the chain of action, or intermediaries, that merely transmit it.

Operationalizing the two approaches

How might we evaluate the above two abstract approaches through an empirical examination of cases of transnational regulation? The epistemologies associated with the two approaches are very different and this complicates efforts to evaluate the approaches relative to a common standard.³ Nevertheless both are concerned with both empirics and theory as measures of adequacy. The differences in epistemologies can be evaluated as well.

A key challenge in matching rational choice theories to empirical cases is avoiding tautologies. For instance if an informal organization is thought to be a response to uncertainty, or to the presence of a simple coordination game, how might these independent variables be detected and measured? Since it often can be impossible to do so with any rigor it is tempting to use some anecdotal illustrations and then to implicitly or explicitly treat the existence of the informal organization as evidence of the uncertainty or the presence of a coordination game.

A key challenge in the assemblage approach is to develop useful theoretical knowledge that is relevant beyond the cases and not simply to engage in description. While the approach may be useful in alerting the researcher to the possibility of clusters of institutionalized activity that are being brought into a new relationship there is a danger of simply labeling these without producing knowledge that moves beyond the particular. This relevance beyond the case does not necessarily have to consist of generalizations, which may be eschewed by some scholars, but can also include the ability to suggest new chains of action.

The main question in evaluating the relative performance of these two approaches in understanding the three cases to follow is whether the institutional variation that they display is better understood as resulting from the choices of rational actors in their pursuit of power and efficiency, or if instead if they result from the bringing together of existing clusters of institutionalized activity for which the role of language and objects, the expressive and the material, independent of humans' conscious manipulation of them, play a significant part.

Case 1: Vehicle Safety Regulation⁴

Vehicle safety standards are important in addressing the deaths of more than a million people in road crashes worldwide, along with as many as 50 million injured.⁵ In this policy area there are typical tensions between the profitability and competitiveness concerns of large multinational firms and the public interest in regulation. Automobile

³ For instance in a rational choice approach this paper would be regarded as observing and commenting on ideas and events that are quite separate from it while in an assemblage approach it might be regarded as one of the objects in the chain of action that it also examines. In the rational choice approach the external data can indicate whether the paper is true or false while in an assemblage approach the question may instead be whether the chains of action that the paper is part of grows or not.

⁴ This empirical section draws heavily on material presented by the author at the International Studies Association convention, San Francisco, March 29, 2008 and at the Workshop on Internationalization and Policy Paradigm Change University of Toronto April 11, 2008.

⁵ See World Bank/WHO (2004) which estimates that deaths and injuries are likely to increase by about 65 percent over the next 20 years.

manufacturers are very eager to have harmonized standards so that can produce single products in larger volumes and so they do not have to engage in very costly duplication of the testing, including crash testing, needed to get regulatory approvals. One might expect jurisdictions to compete for valuable automotive plants by offering lighter regulation, and thereby to induce a race to the bottom, although the link between product safety regulation in the manufacturing jurisdiction and manufacturing costs related to production that can be exported beyond that jurisdiction is not as close as would be the case with the regulation of production itself.

The global harmonization of vehicle safety standards has been complicated by the persistence of two very different forms of regulation.⁶ In the highly integrated production system of the US and Canada vehicle safety regulation has been based on a manufacturers' "self-certification" model. In this model a regulatory agency (in the US, the National Highway and Transport Safety Administration, the NHTSA) or department (Transport Canada in Canada) sets out relatively general vehicle safety standards. Manufacturers are then given a great deal of discretion in how they design and produce vehicle to meet those standards. They conduct tests on their vehicles and present this data to the regulator who then may conduct random spot tests. However the major compliance mechanisms are the threat of private litigation and the recall of vehicles that are found to fall short of compliance once they are out on the road.

In sharp contrast, the form of regulation governing vehicle safety in Europe has been a "type-approval" model. In this model government approved labs establish more specific safety criteria for the design and construction of vehicles and parts and manufacturers must establish that they meet these criteria before they are allowed to sell the vehicles. Compliance therefore occurs through an interaction between government and firms before the vehicle is marketed, while in the North American regulatory approach it occurs in the market with a much higher degree of interaction between consumers and firms.

The first efforts at international harmonization of standards occurred at the UN Economic Commission for Europe (ECE)'s Working Party 29 (WP.29), created in 1952. It has focused on harmonizing regulations in the areas of active and passive safety (crash avoidance and crashworthiness), as well as two non-safety issues, environment and energy use. Until 1998 WP.29 primarily reflected European concerns. In its early years its focus was solving regulatory problems that arose from vehicles being driven or sold across European borders. The first harmonized standard, for headlamps, was agreed in 1956, and a more extensive agreement concluded two years later, the "1958 Agreement," has provided the framework for WP.29's subsequent work. Before 1998 there were no contracting parties to the 1958 agreement other than European countries and their immediate neighbours, but the transnational character of the industry and the eagerness of countries to exchange information about vehicle regulation led countries outside Europe to participate in WP.29. The US and Canada participated from the start and Japan and Australia attended WP.29 meetings for two decades before they became contracting parties to WP.29's Agreements (UN ECE, 2002).

⁶ This section draws on the author's ongoing research on the harmonization of vehicle regulation. For an analysis of North American policy paradigms in vehicle emissions see Perl and Dunn, 2007.

In 1998 WP.29 was renamed the World Forum for Harmonization of Vehicle Regulations to mark efforts to transform it into a more global organization. In addition to its name change, a new 1998 Agreement was signed, entering into force in 2000. This Agreement does not supersede the 1958 Agreement but rather works along side it. As of 2007 the 1998 Agreement had 29 contracting parties.⁷ In contrast to WP.29's prior practice the new Agreement initiated the creation of "Global Technical Regulations" (GTRs)⁸—common global standards that it was hoped would be incorporated into national regulations around the world, including in North America. It also called for recognition of both type approval and manufacturers' self-certification. In contrast to its relatively detached stance in earlier phases of WP.29's development, the US was strongly supportive of this new global initiative. Despite the new globally-oriented 1998 Agreement, the particular importance of the 1958 Agreement for Europe did not disappear. Indeed the accession of the EU to WP.29's 1958 Agreement in 1998 has facilitated increased linkages between EU regulations and the World Forum.

Considerable effort has been devoted to the development of GTRs but progress has been very slow. While more than 23 additional initiatives to create new GTRs or amend existing ones had been recorded by late 2007, only five GTRs had been established, and only one of these (for door locks) was really significant for auto manufacturers. By comparison the NHTSA administers over 60 Federal Motor Vehicle Safety Standards (FMVSS). Since this was seven years after the 1998 Agreement entered into force this is a pace that has been not unreasonably characterized by a US representative at the World Forum as "less than glacier speed."⁹

More important than the GTR process have been regional initiatives. Not surprisingly, the Canadian government has been very actively seeking to harmonize Canadian vehicle safety standards with the US. Elsewhere, however, by far the prevailing trend has been harmonization with the World Forum's European-oriented 1958 Agreement, based on the type approval model. This is especially evident in the important Asian markets. The public/private Japan Automobile Standards Internationalization Center (JASIC), established in 1987, has played a leadership role in Asia in promoting convergence with World Forum regulations, especially with the 1958 Agreement. JASIC established and implemented a contract with the APEC Secretariat that formed the major part of APEC's Road Transport Harmonization Project. This involved creating a detailed inventory of the state of the region's vehicle safety standards, and the challenges involved in harmonizing.

⁷ *Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be fitted and/or be used on Wheeled Vehicles, of 25 June 1998*. As of November 2007 the contracting parties consisted of Canada, US, Japan, France, UK, European Community, Germany, Russia, P.R. China, Republic of Korea, Italy, South Africa, Finland, Hungary, Turkey, Slovakia, New Zealand, Netherlands, Azerbaijan, Spain, Romania, Sweden, Norway, Cyprus, Luxembourg, Malaysia, India, Lithuania, and Moldova (listed in order of effective date). Status of the Agreement, of the Global Registry and of the Compendium of Candidates, World Forum report ECE/TRANS/WP.29/2007/92, November 5, 2007.

⁸ In most documents associated with WP.29 the acronym for Global Technical Regulations is in lower case (gtr). In this paper the more standard convention of capitalizing acronyms is followed.

⁹ Ken Feith, Transcript of NHTSA Public Meeting on Global Agreement, February 3, 1999 (Docket 1988-4956-0013).

JASIC has also provided a great deal of information and encouragement to regional regulators on participating in and following the World Forum regulations and on vehicle safety regulation more generally, including through its website and presentations at regional meetings.

The main emphasis in Asian discussions, heavily promoted by JASIC, has been to adopt the World Forum's 1958 Agreement's type approval system (including the delegation of testing to third parties). This requires countries to mutually recognize certificates based on the regulations agreed under the 1958 Agreement. There are some exceptions to this enthusiasm for type approval regulation. South Korea has developed a self-certification system as an option and accordingly has greatly enhanced its recall system, while other countries (Australia, Brunei, Singapore) accept a manufacturer's self-certification for some parts of vehicles.¹⁰ JASIC and other actors are enthusiastic about the goal of the 1998 Agreement to bring together North American self-certification systems with the rest of the world's emphasis on type approval. Overall however, the slow pace of the GTRs has guaranteed that the 1998 Agreement will not be a significant counterweight to the rapid movement in Asia towards the 1958 Agreement. Elsewhere in the world regional agreements have not been as important and instead certain individual countries have adopted type approval systems that are more consistent with the 1958 Agreement's standards than with the North American self-certification system.

Case 2: Unauthorized music file-sharing¹¹

Before the advent of the internet the highly concentrated music industry controlled the production and dissemination of recorded music through a combination of their own oligopolistic industry structure¹² and national copy right laws. Tape recordings were a relatively minor challenge since the quality was poor, but with digital recording the threat to the industry of unauthorized copying grew dramatically, through the burning of compact disks and file sharing through the internet. While there is some evidence that file sharing increases the sales of the music industry, the International Federation of the Phonographic Industry (IFPI), has characterized file sharing as piracy and argued that this activity is a criminal threat to its existence.

The industry, organized especially through the IFPI and the Recording Industry Association of America, has pursued a multi-pronged campaign against unauthorized copying (Johnstone, 2001, IFPI 2008), and the results of this campaign display a great variety of regulatory forms. An initial emphasis was on revising copyright law to cover the unauthorized copying of songs¹³ and to extend this to countries seen as havens for piracy through international agreements covering intellectual property more broadly, such

¹⁰ Draft Final Report, APEC Road Transport Harmonization Project 1998.

¹¹ This section draws heavily on and updates empirical material that appeared in Porter, 2008.

¹² The big five (BMG Entertainment, Sony, AOL Time Warner, EMI and Vivendi Universal Music Group) sell over 80% of popular music (Fox, 2005, citing W.S Coats, VL. Freeman, J.G. Given and H.D. Rafter, "Streaming into the Future: Music and Video Online," *Loyola of Los Angeles Entertainment Law Journal*, Vol. 20, 2000, pp. 285-307).

¹³ Two key pieces of legislation are the US Digital Millennium Copyright Act and the European Copyright Directive. See Williams, 2001.

as the Trade Related Intellectual Property provisions associated with the World Trade Organization or the intellectual property provisions of the numerous bilateral investment treaties concluded between the home states of the multinational firms that dominate the music industry and other countries (LoVoi, 1999). The industry tried to enlist the full weight of these states, especially the US, for instance by making access to US capital or markets conditional on a vigorous enforcement of intellectual property rights.

While the industry claimed some temporary victories from this strategy it also failed to halt the explosive growth of unauthorized copying. A key part of the problem for the industry was the character of the copying. Napster, a leading file sharing site, was shut down by legal action, but the industry's legal case rested in part on demonstrating that Napster had actively encouraged illegal sharing, and subsequently new peer-to-peer file sharing arrangements not as dependent on deliberate coordination through a central location made both the legal arguments and legal enforcement more difficult (David and Kirkhope, 2004). The industry also had problems targeting users because the activity they wished to restrict was bound up with legitimate activity that lawmakers refused to restrict, such as the operations of internet services providers, or the multiple uses of computer hard drives (Hoffman, 2000). Nevertheless, the industry launched a series of private legal actions against individuals that were alleged to have distributed large volumes of songs illegally. As of 2006 the industry had launched 18,000 lawsuits in the US against music file-swappers and 5500 outside the US, especially in Europe.¹⁴ It also very actively sought to delegitimize file-sharing by associating it with labels like piracy, theft and stealing.

The music industry began to search for technical solutions, including various types of "Digital Rights Management" (DRM). It invested heavily in various copying-restricting technologies such as 'watermarks' used to trace pirated music, to more sophisticated systems allowing limited copying.¹⁵ These strategies carried serious risks, such as investing in a technology that would quickly become obsolete, or that hardware producers would refuse to support, or that would be seen as punitive to the customers who had actually paid for the disks. These risks were dramatically highlighted in 2005 when Sony, faced with class action suits and a public relations disaster, had to take measures to compensate customers who purchased CDs with digital rights management technology that had secret features exposing purchasers' computers to hostile hackers. Similar controversies are arising as the industry seeks to pressure internet service providers into scrutinizing and filtering electronic traffic in order to stop the exchange of unauthorized material.¹⁶

Finally, the industry sought to reduce the incentives for downloading that were related to convenience rather than cost by selling songs on-line. The sites selling such songs included technologies and procedures to restrict further unauthorized copying. Sales on

¹⁴ "File-sharers face legal onslaught", *BBC News* April 4, 2006, online at <http://news.bbc.co.uk/2/hi/technology/4875142.stm>, accessed May 7, 2008.

¹⁵ For instance, in 1998 over 120 organizations and firms from the music and electronics industries formed a consortium to work on the Secure Digital Music Initiative. See Johnstone, 2001: 141.

¹⁶ "AT&T and Other I.S.P.'s May Be Getting Ready to Filter," Brad Stone, *New York Times*, January 8, 2008, accessed at www.nytimes.com, May 8, 2008.

these authorized sites, especially iTunes, grew very rapidly. In 2006 more than 500 million music files were purchased, a 56 percent increase from the previous year, however this compares to 5 billion files downloaded from unauthorized sites, a 47 percent increase over the previous year.¹⁷

Case 3: personal credit¹⁸

While we tend to associate global financial industries with transactions involving states, firms, or wealthy investors, one of the more noteworthy developments in recent years has been the increasingly transnational character of *personal credit* practices.¹⁹ The most dramatic example of this has been sub-prime crisis, in which individual borrowers with modest incomes were integrated through complex practices with massive transnational markets in complex securities, which in turn were linked to investors and banks in foreign countries. When the crisis hit, house foreclosures in poor neighborhoods in Cleveland were tied to multi-billion dollars losses in the giant Swiss bank UBS, for instance. Less noticeable but also important has been the globalization of other personal credit practices, including credit cards and the rating, or scoring, of personal credit. Certainly the notion that global finance can have consequential effects on the personal finances of individuals is nothing new. Longstanding criticisms of IMF structural adjustment policies, for instance, have emphasized the personal hardships that they have brought. However these older concerns involve indirect impacts of global finance on citizens, mediated through the state or the national economy. In contrast transnational personal credit practices involve contracts or mechanisms of control that are targeted at individuals in a direct and detailed way.

There are multiple forms of regulation of personal credit practices. In the case of the sub-prime crisis, this regulation is especially complex, and includes not just the nationally-based rules governing the individuals' mortgage contracts themselves, but also the presence and absence of regulation in the complex transnational markets to which those mortgages were linked. In the case of other forms of personal credit, a set of private institutions are crucial. Personal credit histories are stored and managed by large credit-scoring companies, especially Equifax, TransUnion and Experian. These histories consist of records and estimations of past practices that are aggregated to create a picture of the individual's creditworthiness that in turn is used by retailers and others to evaluate the type of relationship that they wish to establish with this individual (Leyshon and Thrift, 1999). Credit scoring can be remarkably automated and technical, as evident for instance in the ability of retailers to gain electronic access to credit scores, the ability of credit scoring software to grant or deny credit without immediate human intervention by the provider of credit, or in the algorithms that calculate probabilities of default and price risk in the provision of personal credit.

¹⁷ "The NPD Group: Legal Music Downloads Were Fastest Growing Digital Music Category in 2006," Press release, March 14, 2007, at www.npd.com/press/releases/press_0703141.html, accessed May 7, 2008.

¹⁸ This section draws heavily on empirical material presented by the author at the International Studies Association convention, San Francisco, March 29, 2008.

¹⁹ Work on rating of the creditworthiness of firms and governments see Sinclair, 2005. An exception to the lack of interest in personal credit in international relations is the work of Langley, for instance Langley, 2007.

Historically personal credit practices have intersected with restrictions on usury, loan-sharking, and redlining. Restrictions on usury and loan-sharking are ethical and political responses to abuses of vulnerable individual borrowers by predatory lenders, some of which may be involved in other criminal activities, but others of which may be legitimate businesses, such as credit card companies. In the US many states set upper limits on interest rates for personal loans, and the 1970 Racketeer Influenced and Corrupt Organizations Act made loan sharking, defined as twice these upper limits, a federal crime (Koerner, 2001). However these rules have been weakened by federal legislation that allows companies operating across state boundaries to use the rules of their home jurisdiction, leading to a race-to-the-bottom and the legalization of lending practices in states that continue to have laws on the books that previously prohibited such practices (Consumer Law Organization, n.d.). Payday loan companies have also created loopholes, for instance by charging borrowers a “fee” for holding a post-dated paycheck as collateral and claiming that the restrictions on interest charges do not apply to this.

Redlining refers to the use of statistical measures of default for sets of individuals with particular characteristics that are highly correlated with ethnicity to deny credit to individuals in those sets, irrespective of their own individual life stories, a problem that first became politicized when it involved denial of credit by banks to African-American neighborhoods. The legislative response was to prohibit such discriminatory practices and to require banks to lend to neighborhoods they had redlined. The notion of redlining has also entered into debates in Congress about similar problems with credit scoring for credit cards.²⁰ Data to make an assessment of whether discrimination accounts for higher borrowing charges for minorities is so carefully guarded by financial institutions that it has been hard to judge the extent of the problem, although suspicions about discriminatory mortgage-lending practices led New York Attorney General Eliot Spitzer to launch a probe in 2005.²¹

Internationally a principal role played by states in credit scoring issues has been to promote the spread of credit scoring practices. For instance the World Bank has provided comparisons of the role of public and private-sector credit bureaus and encouraged developing countries to upgrade their personal credit infrastructures.²² These initiatives have not generally been accompanied by efforts to globalize prohibitions on loan-sharking and other abusive lending practices. However the rapid growth of Islamic finance with its prohibitions on interest, which has also enjoyed state support, can be seen

²⁰ See Capon, 1982, which discusses the “Credit Card Redlining” hearings in Congress in 1979. In the US credit scoring is partially regulated by the Fair and Accurate Credit Transactions Act (FACTA) under which citizens have access to credit reports. However the extraterritorial reach of this is limited. See “A Roving Eye on Your Credit: Americans Living Abroad Can Have a Tough Time Accessing their Credit Histories.” *Business Week Online* March 31, 2006, byline Sonja Ryst. In Europe the Consumer Credit Directive is important (Jentzsch and Riestra, 2003).

²¹ See “New York Begins Inquiry Into Possible Mortgage Bias” *New York Times*, April 29, 2005, p. C2 [Byline Eric Dash],

²² See “Supporting the Development of Private Credit Information Bureaus: IFC Increases Technical Assistance and Invests in Regional Credit Bureau Initiatives,” *Access Finance* World Bank Group. Issue #4, August 2005; “Development of Credit Reporting Around the World,” Powerpoint presentation, Leora Klapper, World Bank, May 10, 2004.

in part as an ethical response to the abuses that can be associated with personal credit practices that bears some similarities to the US legislation that seeks to regulate predatory lending.

At the local level where the mortgages were issued the subprime crisis displays some similarities to the abusive lending discussed above, but with much greater complexity due to its linkages to globalized securities markets. The consequences for the borrower of the provisions of the loans were obscured by technical language that was often deceptive, as with payday loans. However broader system-wide failures were also crucial. Individual mortgages were repackaged into sophisticated financial instruments and then these were financed by the issuing of securities that were sold in global financial markets. The belief that the risks associated with the original mortgage could be mitigated by repackaging and redistributing it in this way turned out to be wrong, in part due to the failure of each individual transaction to take into account the systemic implications should there be widespread changes in the risk profiles of the mortgages, including through contagion in the reluctance to lend or a collapse in property values as foreclosed houses are put on the market. Conflicts of interest were rife, since at every level individuals and organizations engaged in selling were richly rewarded, shifting the risks to others, with their compensation being delinked from the actual costs of the products.²³ More generally during the subprime boom the signs had become increasingly evident that risk was being underpriced and regulators and central bankers failed to act or to adequately acknowledge this, or in Greenspan's case even to fuel it further by providing generous liquidity.

Regulatory responses to the subprime crisis reflect the fragmented and multi-level character of global financial governance. Bankers were enjoined to create private-sector solutions. Individual central banks, at times in coordination with others, injected massive amounts of liquidity into markets and offered to lend banks money in exchange for the banks providing collateral in the form of the subprime-tainted debt that they could not sell. In the US a bipartisan stimulus package was agreed and programs to try to reduce foreclosures were initiated, including Congressional action to expand the role of the Federal Housing Administration and "Hope Now" and "Help Now" rescue initiatives involving government and non-government actors. Multiple discussions of regulatory reform, as well as criminal investigations into industry practices, were launched.

At the international level official reports with diagnoses of the crisis were compiled and released.²⁴ These do not shy away from highlighting the conflicts of interest, although these are more oriented towards the wellbeing of the investors in sub-prime-tainted financial instruments than homeowners facing foreclosure. A number of existing governance arrangements will be reviewed and strengthened to try to prevent a recurrence of similar crisis. Most prominent is the implementation of Basel II, an agreement among the bank regulators of the twelve leading countries in global finance at the Basel Committee on Banking Supervision (BCBS). Basel II is seen as getting banks to more accurately price risk and to bring the types of complex products used in the

²³ See for instance "Inside the Countrywide Lending Spree", *New York Times* August 26, 2007, online edition. [Byline Gretchen Morgenson].

²⁴ President's Working Group on Financial Markets, 2008; Financial Stability Forum, 2008.

subprime crisis into those calculations. This soft-law agreement is remarkably detailed but requires national implementation. Implementation beyond the twelve BCBS members will be encouraged by a set of regional bank supervisory groupings that cover most of the world, by the regulators' hopes that market pressures for compliance will be strong, and by the incorporation of the standards into other processes, such as the Financial Stability Forum's²⁵ monitoring of standards in general. Calls were also issued for revisions of accounting rules created at the private-sector International Accounting Standards Board to better price the products involved; and in rules on credit rating agencies at the International Organization of Securities Commissions, an organization that brings together securities regulators from almost all jurisdictions around the world.

Conclusion: Comparing the cases, explaining variation in institutional form

The above three cases display a great deal of variation in the form that regulation takes. This variation occurs both within and across cases.

In the vehicle safety case we can identify three main forms of regulation. The North-American-centred self-certification approach and the EU-centred type approval approach are the first two. The self-certification model relies much more heavily on the firms' discretion in implementation, together with private litigation to hold them accountable while the type approval model relies on government approved labs. The third is the so far relatively unsuccessful attempt to create global technical regulations that would be applicable in all jurisdictions. The US regulations are created by a regulatory agency, the National Highway and Transport Safety Administration, with very active participation by stakeholders that is governed by the notice and comment provisions of the Administrative Procedure Act. They are then adjusted marginally by Transport Canada for implementation in Canada. Type approval regulations are produced at the World Forum, a multilateral body, and then implemented in the jurisdictions that use them, including the European Union and most of the rest of the world.

In the music file-sharing case three main types of transnational regulation can also be identified. Public international law and state-to-state diplomacy is evident in the creation and implementation of TRIPS through the WTO. Compliance, including the strengthening of domestic laws, is fostered through mechanisms typical of international law, such as a sense of legal obligation, reputational factors, and bilateral and multilateral pressures on recalcitrant states. Digital rights management, in which rules are embedded in CDs, or in which internet service providers install filters to check for unauthorized material, is a second form of private technical regulation. A third is the use in different countries by the industry of private litigation and rhetorical persuasion to deter file-sharing.

In the personal credit case three forms of transnational regulation can also be identified. Problems in the complex global financial markets into which repackaged subprime

²⁵ The FSF was created by the G7 countries in 1999 in response to the global financial crises of that decade. It includes representatives from the G7 as well as from key groupings and organizations involved in the governance of global finance, such as the International Monetary Fund and the International Association of Insurance Supervisors. On the regulatory groupings mentioned in this paragraph see Porter, 2005.

mortgages flowed trigger responses from relatively informal collaborative groupings of regulators or standard setters, including the public sector Basel Committee on Banking Supervision, Financial Stability Forum, and International Organization of Securities Commissions, and the private-sector International Accounting Standards Board. Rules created by these bodies are implemented by national regulators and by multinational private sector actors, including banks and accounting firms. Markets can also create compliance pressures. A second form of regulation is carried out by multinational firms, including credit scoring by firms like Equifax and credit rating by firms such as Moodys. A third form of regulation that is relatively ineffective at the global level is prohibitions on the aspects of lending that are seen as predatory, which are national except for the transnational growth of Islamic finance.

How well do the two theoretical approaches help explain this variation? A key starting point in answering this is to consider whether it is more effective to start from the rational actor making choices about regulatory arrangements or instead to start from clusters of regulatory activity and their relationship to one another. Once this is considered we can look at more specific aspects of the approaches, including the hypotheses generated by rational choice theory and the treatment of expressive and material factors in the assemblage approach.

One problem that is immediately apparent in seeking to apply rational choice theory to these cases is there are multiple actors seeking to construct or influence regulatory arrangements simultaneously and separating out a manageable set of rational calculations from all the others is challenging. In the safety standards case we could focus on the decisions of states at the World Forum and treat the self-certification and type approval models as preset features of those states' environments, but that tends to obscure factors contributing to the attractiveness of one or the other for governments. Similarly in the music and personal credit cases should states or firms be treated as the key actors choosing among regulatory forms?

Despite this problem we can offer some efficiency-oriented rational choice explanations of the forms taken by regulatory arrangements in these cases. In the vehicle safety case we can say that the difficulty of creating global technical regulations reflects the costliness of negotiating them in a way that both is compatible with existing regulations in the two models, but also which anticipates likely future developments coming from the two jurisdictions that that will need to be managed by the regulations should they be implemented. The contracting costs of the new global regulations are much higher than an arrangement that relies more heavily on established regulatory arrangements. In the music case we can say that the choice between public law, private law, and digital rights management reflects calculations about the relative costs, including legal costs, research and development costs, and costs involved in creating and fostering compliance with intellectual property rules and in excluding users from unauthorized uses. In the personal credit case we can argue that cross-sectoral problems, and problems involving multiple types of actors, such as the mixing of toxic subprime credit with complex global financial products, are more cost-effectively managed by multilateral public sector collaboration, while simple problems of assessing personal credit through credit scoring, in which the

denial of credit is always an option, can be cost-effectively handled by private-sector and technical solutions.

In each case, however, it would be impossible to put an exact price on the various options considered, even with far more extensive research than is feasibly presented in a single paper such as this. One problem is that the existing costs are difficult to obtain, such as relative rates of return (ie. reduced unauthorized file sharing) of money spent on legal actions taken against file sharers so far as compared to lobbying states. This is further complicated by the fact that the actual decisions are made at multiple points in time and must calculate expected rates of return that will be created by activities that have not yet occurred. Thus the problem of tautology that was set out earlier arises: our only empirical evidence that cost factors can explain the form chosen is the fact that the form was chosen.

Power-oriented rational choice theories also have mixed success in explaining variation in these three cases. In the vehicle safety case neither the large multinational auto assembly companies nor the US government have achieved their preferred outcomes. The harmonized global technical regulations have been relatively unsuccessful, and the self-certification model has been eclipsed by the more EU-initiated and state-oriented type approval model everywhere outside the US and Canada. With the move towards the type-approval model represented by the World Forum's 1958 agreement there is an upward shift in vehicle safety standards in the developing world. Although one can emphasize the growing power of the EU as it has become more institutionalized and of Japan in the auto industry it is hard to see how distributions of power could explain the outcomes that the vehicle safety case displays. In the song file-sharing case the multinational music firms have been closely allied with their home states, especially the US, in a struggle with dispersed users and peer-to-peer networks. Considering the ongoing huge volume of unauthorized file sharing it is clear that the first of these two sets of protagonists, which is more powerful in traditional measures, has not dominated outcomes. One can only understand this case by moving beyond power distributions to consider the role of technologies. In the personal credit case one can certainly trace the growing transnational role of personal credit practices to the large role played by the US in financial innovation and speculation. In the sub-prime case some powerful financial actors lobbied hard to obtain weak or permissive regulations and walked off with fortunes, leaving weaker actors to bear the costs. Nevertheless it is not credible to treat the regulatory form associated with the subprime crisis as only reflecting the preferred outcome of powerful actors. The crisis created a great deal of pain for those actors. With credit scoring, subprime regulation, and rules against predatory lending it would be impossible to predict or explain regulatory form simply by looking at the distribution of power among the key actors involved.

An assemblage approach is helpful in addressing some of the shortcomings of the rational choice approach. Each of the cases displays an aggregation of clusters of institutionalized activity into an assemblage-like arrangement. In vehicle safety the global arrangements bring together self-certification and type approval clusters rather than, for instance, being a distinct field of inter-state competition and calculation. Both self-certification and type

approval in turn consist of relations among clusters of institutionalized activity, such as private litigation or the Administrative Procedure Act in the US, or government approved labs in the EU. The direction of each cluster in this multi-level arrangement is shaped both by its relationship to vehicle safety, but also to other assemblages of which they are a part. Similarly it is useful to think of the regulation of file sharing as an assemblage of clusters of institutionalized activity. These clusters include trade law, the coding activities of designers of DRM, private litigation, efforts to influence internet service providers, and the creation of mechanisms for legal on-line purchase of songs. Each of these clusters is part of other assemblages with their own processes. Similarly with personal credit, the relevant regulatory institutions are a mix of different groupings and rules that all relate to the regulation of personal credit but are an assemblage rather than being constituted as part of a transnational personal credit regime or being created individually by calculating rational actors.

The assemblage approach's emphasis on expressive and material factors is also useful. The role of expression is most evident in the file sharing case. The portrayal of file sharing as piracy has been a crucially important aspect of the industry's campaign. The fate of this campaign cannot be reduced to cost factors since it relates to contested ethical and cultural beliefs about property, the creation and circulation of art, ownership, and rights. The regulatory outcome of the subprime crisis will also be shaped by such questions. Were the borrowers whose houses are foreclosed victims of predatory lending or were they reckless speculators? Were the subprime lenders innovatively creating new credit mechanisms that should have been valuable to underserved poor urban populations or were they predatory lenders?²⁶ The answers to these questions, which will affect the regulatory response, depend not just on data but on ethical judgments as well.

The role of non-human actants is also important in each case. In the vehicle safety case much of the difficulty of creating global technical regulations can be explained by the fact that distinctive physical objects are involved in testing and road performance. Door locks are relatively simple compared to other car parts such as braking systems and this helps explain why they are the focus of the only important global technical regulation for automakers that has been created so far. Differences in vehicles in North America and elsewhere also related to differences in the physical environment in which they operate. In the music file sharing and personal credit cases the use of digital systems to select between permissible and not permissible or between creditworthy and not creditworthy, in addition to involving a process of choice that is not dissimilar to one that might be carried out by a human actor, is dependent on the physical properties of the objects involved. In the subprime crisis the physical distance between the house for which the loan was issued and the international holders of the financial instruments into which such loans had been aggregated and disaggregated was a major factor.

Overall then, rather than seeking to explain institutions by evaluating the costs of alternatives facing rational choosing actors or the power at the disposal of these actors, an

²⁶ See for instance popular resistance to local efforts to help citizens facing foreclosures, such as a comment about a Massachusetts initiative : "The talk radio was all up in arms: 'Why should we be helping these people out?... They should have known what they were doing.' " ("Foreclosure Aid Rising Locally, as Is Dissent", *New York Times* Feb. 26, 2008 [byline William Yardley]).

assemblage approach examines the trajectories of clusters of institutionalized activity, including the expressive and material dimensions of this activity and the human and non-human actants involved in it. The overall assemblage then is analyzed as emerging from the new relationships that develop among these clusters as they come into closer proximity, as well as from trends affecting the clusters that are originating from other assemblages to which they belong. But is this simply description that has limited value because it is not generalizable?

One answer to this question is that the assemblage approach does not preclude, and indeed encourages the use of generalizable theory to understand the trajectories of each cluster that an assemblage aggregates even if the assemblage itself is unique. For instance the testing of vehicle parts draws on physics in order to understand the performance of the parts in crash conditions, and this in turn helps understand variation in the difficulties of harmonizing different standards. Similar points could be made about the software and hardware involved in DRM, the financial and credit models used in the regulation of personal credit, or how rhetoric achieves its effects in the struggle to define file-sharing.

A second answer to the question of generalizability would question the value of generalizations. By understanding better the many clusters of institutionalized activity in any particular assemblage we are then better able to understand the other assemblages to which these clusters are connected. For instance by understanding the role of the Administrative Procedure Act or of private litigation in transnational vehicle safety regulation we can understand its role in other areas of transnational consumer regulation—not necessarily by claiming that the same law-like relationship is behind observable practices in each case but instead by understanding the role that particular observable actants and practices play in more than one assemblage. Predictable outcomes can be discerned by identifying the operation of routine practices that govern particular actants or clusters belonging to more than one assemblage and that may also be imitated by entirely different actants or clusters in other contexts and assemblages. Rather than being judged on its capacity for generating generalizable law-like correlations, then, an assemblage approach is especially helpful in identifying, constructing, and disseminating useful practices that can continually be modified, even if they also display certain predictable continuities.

Overall then, rational choice theory and the approach this paper has called assemblage theory offer very different ways of analyzing transnational regulation. This is especially evident in their emphasis on the choosing actor or on clusters of institutionalized activity respectively. Each has strengths and weaknesses, but some distinctive advantages of an assemblage approach have been identified by comparing what each approach offers to our understanding of the three cases examined in the paper.

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