Trade and . . . Problems, Cost-Benefit Analysis and Subsidiarity

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Abstract

This article analyses the conflict between trade values and other values ('trade and . . . problems'), such as environmental protection, labour rights or free competition, as it is addressed by the principal legal devices available to address such conflicts ('trade-off devices') in the dispute resolution context in the European Union, the GATT/World Trade Organization system and in the United States federal system. These trade-off devices include anti-discrimination rules, simple means-ends rationality tests, least trade restrictive alternative tests, proportionality tests, balancing tests and cost-benefit analysis. A separate cost-benefit analysis methodology is developed to choose among these devices in particular circumstances. From the simple standpoint of maximization of the sum of benefits of trade and of regulation, cost-benefit analysis would, tautologically, be selected. However, full cost-benefit analysis is nowhere in use as a trade-off device. This paper begins to explain this apparent paradox by suggesting reasons, including administrative, distributive, moral and theoretical concerns, why this approach is not applied. It then explores these reasons in order to evaluate retreats from full cost-benefit analysis to the trade-off devices actually in use. Finally, the author seeks to comprehend these trade-off devices as determinants of the allocation of regulatory jurisdiction between central and component governments: of subsidiarity.

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1 The Trade-off Problem and the Structure of the Argument

A *The Trade and ... Problem*

With the reduction of tariffs and quotas since the inception of the General Agreement on Tariffs and Trade ('GATT') in 1947, conflicts between trade values and other social values have arisen. While these conflicts are now apparent, their contours and ramifications are largely uncharted. Furthermore, the explicit formulas or approaches provided to resolve these conflicts in treaties, constitutions and precedent seem incomplete and incoherent.

It is obvious, but not always accepted, that neither trade values nor other social values are, by themselves, preeminent.[1] Rather, we are forced to choose the extent to which each value is to be implemented: i.e., we must make trade-offs among these values. We do so through legislative and adjudicative processes. The main way that adjudicative bodies have made trade-offs in the trade arena is through rules that relate the burden on international or interstate trade to the local, or at least locally-determined, regulatory benefit, including anti-discrimination rules,[2] simple means-ends rationality tests, least trade restrictive alternative tests (including the 'necessity' test under Article XX of GATT), proportionality tests *stricto sensu*, balancing tests and perhaps cost-benefit analysis. While diverse, these doctrines share a common feature — the willingness to juxtapose, and in many cases to commensurate between, trade values on the one hand and non-trade values on the other.

This article engages in a comparative institutional analysis of formulaic and other institutional means to address the conflict between trade values and other social values.[3] The means examined are used by adjudicative bodies in the European Union, the World Trade Organization and the United States.

[1] See Dunoff, 'Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?', 49 *Wash. & Lee L. Rev.* (1992) 1407, at 1449–1450. See also Stewart, 'International Trade and Environment: Lessons from the Federal Experience', 49 *Wash. & Lee L. Rev.* (1992) 1329. ('It thus seems appropriate, for the present, to proceed on the premise that environmental protection policy as well as trade policy are both appropriately aimed at promoting, in different ways, human welfare, broadly understood.')

[2] The careful reader will object that anti-discrimination or national treatment rules do not relate regulatory benefits to trade burdens, but simply prohibit application of more burdensome standards to non-nationals. However, as will be shown below, in cases other than those of *de jure* or intentional discrimination, these rules inevitably compare regulatory benefits and trade burdens.

[3] This is a central problem in any federal, regional or international free-trade system. Other scholars have addressed these issues in important articles, including Barcelo, 'Product Standards to Protect the Local Environment — the GATT and the Uruguay Round Sanitary and Phytosanitary Agreement', 27 *Cornell Int'l L.J.* (1994) 755, at 759–760; Farber and Hudec, 'Free Trade and the Regulatory State: A GATT's-Eye View of the Dormant Commerce Clause', 47 *Vand. L. Rev.* (1994) 1401 (comparing dormant commerce clause analysis with GATT Art. XX analysis); Klabbers, 'Jurisprudence in International Trade Law: Article XX of the GATT', 26 *J. World Trade* (1992) 63; Stewart, *supra* note 1; Kommers and Waelbroeck, 'Legal Integration and the Free Movement of Goods: The American and European Experience', in M. Cappelletti, M. Seccombe and J. Weiler (eds.), *Integration through Law: Europe and the American Federal Experience* (1986).

B *The 'Trade and ... Problem' as a Multi-level Institutional Choice Problem*

The 'trade and ... problem' manifests itself of course in particular circumstances, and each circumstance must be addressed separately, except to the extent that benefits arise from analysing similar problems together. This problem is one of synthesizing and maximizing complex preferences in the context of multiple overlapping communities.

If we had a discrete community to govern, the problem would be much more manageable. This 'island' community would simply leave it to its political process to determine how much of each 'good' it wants or, alternatively, to determine when the market should do so. While both the political process and the market are no doubt imperfect, we have no other forum. Politics is often the default means for choosing among incommensurables, such as allocative efficiency (which can be measured in currency, albeit with costs and limitations) and environmental protection (which is considerably more difficult, although perhaps not impossible, to monetize). By the same token, the reason we do not have a single global community to govern is because there are important benefits in diversity, which allows smaller groups of people to express and satisfy different preferences more effectively.[4] However, there are horizontal spillovers that cause one group to be affected by the legal rules and policy decisions of another group. Finally on this point, the 'trade and ... problem' may also be interpreted as one of overlapping vertical allocation of power, wherein the discrete organs of vertical power, including the state, regional organizations and global organizations, must share power in particularized ways. That is, broad allocations of power, over 'trade' or 'health' or 'environment', are found to overlap, and these overlaps must be reconciled. For example, in the United States, the Constitution assigns potentially complete power over interstate trade to the federal government, while the states are generally competent in relation to health regulation issues. Given the overlap between these issues, the 'trade and ... problem' amounts to a question of federalism.

Therefore, the 'trade and ... problem' is one of intersecting jurisdictions, on both horizontal and vertical axes, each with varying interests. If the conflict between the market and regulation were a chess game, then the conflict between trade values, or more generally international values, and other social values would be a three-dimensional game, with geometrically increased complexity. In addition to choosing between *laissez-faire* and intervention, the level of intervention must also be selected.

Institutional choice has multiple parameters. The first parameter to be addressed is the vertical level of society at which choice takes place. Second is the type of institution — for example, legislative versus adjudicative — to be assigned the task of choice. Third is the rule that the selected institution will follow. This article focuses on this last parameter as a device, applied at a central adjudicative level, to select between the

[4] See, e.g., Trachtman, 'International Regulatory Competition, Externalization and Jurisdiction', 34 *Harv. Int'l L.J.* (1993) 47.

assignment or denial of power to local legislatures. However, the rule applied at the central adjudicative level may also determine the choice between central adjudication and legislation as the institutional setting for decision.

C *A Taxonomy of Trade-off Devices*

In this section, we examine the trade-off devices used by the European Court of Justice (ECJ), GATT or WTO dispute resolution panels, or the WTO Standing Appellate Body, and the US Supreme Court in connection with 'trade and ... problems' within the EU, GATT/WTO and US systems, respectively. The major categories of trade-off devices are listed and briefly defined below. In each of the jurisdictions studied, these trade-off devices appear in combination, rather than alone, and each category of device conceals considerable latitude for heterogeneity. Thus, despite the list of only six categories, far more combinations and variations are possible.

(i) *National treatment rules.* This is a type of anti-discrimination rule that examines whether different legal standards are applied to comparable cases, as between the domestic and the foreign. National treatment rules entail surprising complexity. In order to deal with more difficult cases, they sometimes incorporate some of the tests set forth below in this list.

(ii) *Simple means-ends rationality tests.* These tests consider whether the means chosen is indeed a rational means to a purported end. Simple means-ends rationality testing is often combined with limitations on ends. Analytically, this form of testing is included in all of the tests described below, and is sometimes used as a proxy to detect discrimination. As it imposes little real discipline, and is often included in other tests, this test is not analysed in detail below.

(iii) *Necessity or least trade restrictive alternative tests.* This type of test goes a significant step beyond simple means-ends rationality testing. It inquires whether there is a less trade restrictive means to accomplish the same end. The definition of the end is often outcome-determinative. In some cases necessity testing is qualified by requiring that the means be the least trade restrictive alternative that is *reasonably available.* In addition, necessity testing is sometimes combined with limitations on the categories of ends permitted.

(iv) *Proportionality.* Proportionality *stricto sensu*[5] examines whether the means are 'proportionate' to the ends: whether the costs are excessive in relation to the benefits. It might be viewed as cost-benefit analysis with a margin of appreciation, as it does not require that the costs be less than the benefits. Proportionality may be either static or comparative, in the same way as cost-benefit analysis. A comparative approach to proportionality testing would include in its calculus the costs and benefits of alternative rules.

[5] N. Emiliou, *The Principle of Proportionality in European Law: A Comparative Study* (1996), 6. A wider definition of proportionality developed in the EU context includes three tests: (i) proportionality *stricto sensu*, (ii) a least trade restrictive alternative test, and (iii) a simple means-ends rationality test. This article will consider only the narrower type of proportionality.

(v) *Balancing tests.* These tests purport to decide whether a measure that impedes trade is acceptable, balancing all of the factors. Balancing may be viewed as a kind of amorphous or imprecise cost-benefit analysis.[6] More charitably, and perhaps more correctly, it may be viewed as a kind of cost-benefit analysis that recognizes the difficulty of formalizing the analysis, and seeks to achieve similar results informally.[7]

(vi) *Cost-benefit analysis.* Static cost-benefit analysis in the context at hand[8] juxtaposes the regulatory benefits and the trade costs of regulation, as well as other costs involved, and would strike down regulation where the costs exceed the benefits. Cost-benefit analysis in this context may be viewed as stricter scrutiny than the domestic cost-benefit analysis that has recently become popular, as it adds a cost dimension not normally included, i.e. detriments to trade. Adding trade detriments to the calculation would presumably have the marginal effect of causing some regulation to fail a cost-benefit analysis test. It is worth comparing static cost-benefit analysis, simply juxtaposing the costs and benefits of a single rule, with a more dynamic comparative cost-benefit analysis, comparing the net benefits of multiple rules, and recommending the rule with the greatest net benefits.

D *Toward Comparative Institutional Analysis*

This article recognizes, following Coase,[9] Demsetz,[10] Komesar,[11] Wolf[12] and countless others, that neither the market nor the state are perfect or perfectible institutions, but that our existential task is to choose the least imperfect combinations of institutions.

[6] See Smith, 'State Discriminations against Interstate Commerce', 74 *Cal. L. Rev.* (1979) 1203, at 1205 ('. . . the Justices take all relevant circumstances into account and render judgment according to their overall sense of the advantages and disadvantages of upholding the regulation'). At their most precise, balancing tests are the same as cost-benefit analysis. See Maltz, 'How Much Regulation is Too Much — An Examination of Commerce Clause Jurisprudence', 50 *Geo. Wash. L. Rev.* (1981) 47, at 59–60.

[7] 'If we had a way of quantifying all the appropriate inputs, and a way of comparing them, and a theory that told us how to do so, we would not call it balancing. Rather, it would be called something like "deriving the most cost-effective solution", or just "solving the problem".' Gottlieb, 'The Paradox of Balancing Significant Interests', 45 *Hastings L.J.* (1994) 825, at 839. See also Aleinikoff, 'Constitutional Law in the Age of Balancing', 96 *Yale L.J.* (1987) 943, at 1002–1004.

[8] For more general and technical treatment of cost-benefit analysis, see, e.g., P.S. Menell and R.B. Stewart, *Environmental Law and Policy* (1994), at 81–160. D. Pearce and C. Nash, *The Social Appraisal of Projects: A Text in Cost-Benefit Analysis* (1981); R. Tresch, *Public Finance: A Normative Theory* (1981); E. Stokey and R. Zeckhauser, *A Primer for Policy Analysis* (1978); E.J. Mishan, *Cost-Benefit Analysis* (1976); H. Raiffa, *Decision Analysis* (1968).

[9] R. Coase, *The Firm, the Market and the Law* (1988), at 95–185 incorporating and commenting upon earlier work, including Coase's seminal articles: 'The Nature of the Firm', 4 *Economica* (1937) 386, and 'The Problem of Social Cost', 3 *J.L. & Econ.* (1960) 1. See also *idem*, 'The Nature of the Firm: Influence', 4 *J.L. Econ. & Org.* (1988) 33, at 33.

[10] Demsetz, 'Information and Efficiency: Another Viewpoint', 12 *J. L. & Econ.* (1969) 1.

[11] N. Komesar, *Imperfect Alternatives* (1994). For an application of Komesar's approach to the types of problems addressed here, see Poiares Maduro, 'Reforming the Market or the State? Article 30 and the European Constitution: Economic Freedom and Political Rights', 3 *European Law Journal* (1997) 55.

[12] C. Wolf, *Markets or Governments: Choosing Between Imperfect Alternatives* (1988).

'In a world of institutional alternatives that are both complex and imperfect, institutional choice by implication, simple intuition, or even long lists of imperfections is deeply inadequate.'[13] However, this article extends the analysis of these authors by asking which state and which market. In seeking an answer to this question, it evaluates different markets (from the private market to the 'market' among competitive governments, and beyond) and different governmental entities at different vertical levels as appropriate repositories of authority.

The article examines strategies for management established pursuant to constitutional or treaty language and used in dispute resolution fora in the EU's common market, in the multilateral trade system under the GATT and WTO and in the United States' internal common market.[14] While these strategies are based on legislative or constitutional texts, the texts are consistently indeterminate — perhaps more than most laws — and thus the task of constructing strategies has often fallen on dispute resolution bodies.

Within this comparative analysis, it is important to keep in mind the two leading alternatives to the trade-off exercise as a means to moderate between trade values and other social values: (i) *laissez-régler* (used here to denote a permissive attitude taken by the international system, allowing local governments freedom to regulate in the domestic sphere) and (ii) international regulation (a decision to moderate between these values in a more specific, and in a positive,[15] international legislative manner). The first alternative may allow the erosion of international commitments in ways that may be unacceptable in at least some international economic law settings, but may be acceptable in other settings where few externalities exist or where states may make ad hoc bargains at low transaction costs. In fact, mechanisms for managing the conflict between trade values and other social values have the effect of constraining state intervention, either in favour of *laissez-faire*, or, where combined with international legislative devices, in favour of international regulation. 'The modern regulatory state inevitably produces burdens on trade, if only because of the unavoidable lack of regulatory uniformity.'[16] Petersmann argues in favour of international disciplines on national regulation — against *laissez-régler* — in order to protect *laissez-faire*.[17]

A '*laissez-régler*' approach to local regulation means decentralizing decisions about regulation. Kitch explains why decentralization is not *necessarily* the enemy of free trade, arguing that centralized supervision or control is only one way that local units can cooperate to achieve their goals. The fact that there is decentralized authority over the laws and government practices affecting commerce does not mean that there will

[13] Komesar, *supra* note 11, at 6.

[14] See Collins, 'Economic Union as a Constitutional Value', 63 *NYU L. Rev.* (1988) 43.

[15] It is common to distinguish between negative integration, by virtue of invalidating local rules that burden commerce, and positive integration, by virtue of central legislation that preempts or supersedes the local law.

[16] Farber and Hudec, *supra* note 3, at 1402.

[17] E.-U. Petersmann, *Constitutional Functions and Constitutional Problems of International Economic Law* (1991), at 210–221; see also Tumlir, 'Need for an Open Multilateral Trading System', 6 *World Econ.* (1983) 393, at 406.

not be free trade. Free trade among decentralized authorities will result from voluntary cooperation, motivated by the fact that it will produce greater wealth for all to share. In the short run, this approach to free trade may cause significant bargaining instability, as each jurisdiction tries to establish a bargaining position through bluff, threat and implemented threat. But in the long run, it may provide more free trade than centralized authority because it places stronger incentives on each jurisdiction to promulgate efficient rules for both its internal and external commerce.[18]

Kitch implicitly compares two different centralizing structures: one mandatory and the other voluntary. As North has pointed out, Kitch's perspective seems to be based on an assumption that it is cheaper in transaction cost terms for states to get together on an ad hoc basis to cooperate than it is for this cooperation to be imposed by the federal government. He makes an assumption as to which is the more efficient instrument of cooperation.[19] North responds that we do not 'know that decentralized authority would promote more efficient rules than would centralized authority'.[20] The trade-off devices examined herein may be viewed as heuristics for determining, in particular settings, whether decentralized or centralized authority is more satisfactory.

As instruments of negative integration, these trade-off devices may serve another dynamic purpose, providing incentives for positive international regulation where they strike down domestic regulation. Furthermore, they clarify and cull the appropriate topics of, and scope for, international regulation by indicating what domestic regulation is acceptable. Once domestic regulation is identified as acceptable pursuant to the rules applied by courts, it is for the legislative process to determine whether the international values are great enough to justify superseding domestic law by international regulation. In this respect, these trade-off devices may serve to allocate work between adjudicative and legislative decision-making processes.[21]

From a horizontal, as opposed to vertical, perspective, these trade-off devices may be viewed as intended not to limit local autonomy, but to restrain 'state interference in the affairs of other states'.[22] Thus, local autonomy is on both sides of the equation, although in some instances it is represented by international institutions. 'Inter-

[18] Kitch, 'Regulation and the American Common Market', in A.D. Tarlock (ed.), *Regulation, Federalism and Interstate Commerce* (1981), at 13–14. But see Olson, 'The Principle of Fiscal Equivalence: The Division of Responsibilities among Different Levels of Government', 59 *Am. Econ. Rev.* (1969) 479, at 480–481 (explaining why simple bargaining is insufficient to achieve Pareto optimality under circumstances of positive transaction costs). See also Inman and Rubinfeld, 'A Federalist Fiscal Constitution for an Imperfect World', in H.N. Scheiber (ed.), *Federalism: Studies in History, Law and Policy* (1988).

[19] North, 'An Economist's Perspective on the American Common Market', in Tarlock, *supra* note 18, at 78.

[20] *Ibid.* See also Trachtman, 'The Theory of the Firm and the Theory of the International Economic Organization: Toward Comparative Institutional Analysis', 17 *Northw. J. Int'l L. & Bus.* (1997) 470.

[21] 'If the Contracting Parties were to decide to permit [environmental] trade measures ..., it would be preferable for them to do so not by interpreting Article XX, but by amending or supplementing the provisions of the General Agreement ...' United States — Restrictions on Imports of Tuna, 39 BISD (1993) 155, 204, para. 6.3 reprinted in 30 *ILM* (1991) 1594 [hereinafter 'First Tuna Panel Report'].

[22] Collins, *supra* note 14, at 109. In this regard, the problem can be viewed as having a reciprocal nature. For an analysis of the reciprocal nature of property rights, see Coase, *supra* note 9.

ference arises from two basic causes, state protection of local commerce against external competition, and extra costs that result when more than one sovereign regulates or taxes the same person or transaction. The latter costs are of two kinds — multiple burdens, and conflict costs caused by inconsistent regulation.'[23]

In current or static terms, trade-off devices serve as heuristics for determining when domestic regulation should be suppressed. They moderate between the domestic (*laissez-régler*) and the international on a case-by-case basis. In intertemporal terms, perhaps they serve in some cases as bridges through time from *laissez-régler* to international regulation.

Pursuing a roughly comparative methodology,[24] this analysis finds significant similarities in the texts and approaches applied in the three jurisdictions examined. Beginning with comparative cost-benefit analysis as a presumptively best alternative, the article seeks to comprehend moves to other approaches based on problems with cost-benefit analysis and seeks to explain variations among these other approaches. These relationships cannot be drawn precisely, as there are many variables and only a small number of cases to compare, but it is hoped that lines of further inquiry will emerge.

2 Comparative Cost-Benefit Analysis

This part will develop and critique comparative cost-benefit analysis.[25] This device serves as a benchmark for evaluation of the actual trade-off devices to be considered and compared below. It has the advantage, by definition, of maximizing the net regulatory costs and trade benefits. We will begin to compare trade-off devices in terms of a wider institutional cost-benefit analysis that, in addition to taking account of the ability of a device to maximize the net sum of regulatory costs and trade benefits, examines administrability as well as distributive, moral and theoretical concerns (avoidance of interpersonal comparison of utilities). These considerations may give impetus to a retreat from comparative cost-benefit analysis to simplified or truncated, or simply different, trade-off devices, including national treatment, simple means-ends rationality testing, proportionality testing, necessity testing and balancing: namely, the tests actually in use. 'The difficulties of balancing or "optimization" have ... led scholars [and, we might add, courts] to define forms of "bounded rationality" in which various rules of thumb substitute for fully comparative weighing of alternatives.'[26]

[23] Farber and Hudec, *supra* note 3, at 1402.

[24] See Lijphart, 'Comparative Politics and the Comparative Method', 65 *Am. Pol. Sci. Rev.* (1971) 682.

[25] Cost-benefit analysis may be static: considering the costs and benefits of a single alternative and considering whether the benefits exceed, or otherwise justify, the costs. On the other hand, cost-benefit analysis may be comparative or dynamic: identifying a series of alternatives and choosing the one that provides the greatest net benefits or the smallest net costs. For a description of cost-benefit analysis in a comparative mode, see, e.g., J.T. Campden, *Benefit, Cost, and Beyond: the Political Economy of Benefit-cost Analysis* (1986), at 22.

[26] Gottlieb, *supra* note 7, at 855, citing J.G. March, *Decisions and Organizations* (1988) 3, at 12–14.

A *Comparative Cost-benefit Analysis Defined*

As Farber and Hudec,[27] Pearce,[28] Runge[29] and Wils[30] have noted, it is not difficult to begin to imagine a first-best trade-off device from an economic standpoint.[31] The simplest form, and the one most conventionally used in the regulatory context, is static cost-benefit analysis: Is the regulatory benefit greater than the trade detriment?[32] However, this static, single-institutional analysis is, at least in theory, insufficient, and would in theory be replaced by a more dynamic comparative approach.[33] It does not even aspire to maximize net benefits (or minimize net costs), but simply examines whether benefits exceed costs.

Domestic cost-benefit analysis has been formally implemented since at least 1981 in the US, with varying formulations in a number of contexts in legislation[34] and regulation and through executive order,[35] in order to discipline and inform the regulatory process. The 1993 formulation modified the original one of 1981 by

[27] Farber and Hudec, *supra* note 3, at 1417: 'A cost-benefit analysis would insure that the rules were optimal, and also that regulators had taken regulatory burdens on outsiders into account.' Farber and Hudec argue that courts avoid cost-benefit analysis because of its Lochnerian implications, and turn to a search for intent. This search turns into a search for proxies for intent. However, the search for proxies leads back toward more inchoate balancing tests. We thus vacillate between formalism and realism.

[28] Pearce, 'The Greening of the GATT: Some Economic Considerations', in J. Cameron, P. Demaret and D. Geradin (eds.) *Trade & the Environment: The Search for Balance* (1994), 20. Pearce considers the cost-benefit analysis globally: Is free trade more valuable than environmental protection? Luckily, we may avoid this choice. The present article argues that a more atomistic approach, examining more particular cases, provides more efficient results.

[29] C.F. Runge, *Freer Trade, Protected Environment* (1994), at 32, 85.

[30] Wils, 'The Search for the Rule in Article 30 EEC: Much Ado About Nothing', 1993 *Euro. L. Rev.* (1993) 475. See also Levmore, 'Interstate Exploitation and Judicial Intervention', 69 *Va. L. Rev.* (1983) 563, at 574 (arguing for use of cost-benefit analysis in cases of 'interferences', and invalidation in cases of 'exploitations' under the US commerce clause) and Dunoff, *supra* note 1, at 1449 (arguing for a cost-benefit balancing test).

[31] We assume that the goals of the provisions studied here are economic, and not purely political. If the goals were purely political, then perhaps an intent test such as the one advocated by Regan would be sufficient. Regan, 'The Supreme Court and State Protectionism: Making Sense of the Dormant Commerce Clause', 84 *Mich. L. Rev.* (1986) 1091. If the goals are at least partly economic, it seems necessary to go beyond intent, or at least to explore the costs and benefits of doing so.

[32] See also Farber and Hudec, *supra* note 3, at 1405: 'In a community consisting of several smaller units of government (a United States consisting of individual states, or a GATT consisting of individual nations), the ultimate question is whether the gain of the regulation for insiders outweighs the harm it causes to outsiders' (footnote omitted). The footnote omitted from this quotation indicates that the gain to insiders considered by Farber and Hudec is 'tangible economic gain' from trade protection. The present article, on the other hand, considers the broader gain from regulation, recognizing, with Farber and Hudec, that protectionism alone offers little gain to the greater society. In fact, the present article recognizes that the trade detriment may be felt both at home and abroad.

[33] See Wils, *supra* note 30, at 478–479. Wils establishes a first-best balancing test between 'valued regulatory effects' and 'anti-integrationist effects', then shows how under Art. 30 of the Treaty of Rome, the ECJ has retreated from and advanced to such a test.

[34] See, e.g., the Unfunded Mandates Reform Act of 1995, Pub. L. No. 104-4, 109 Stat. 48 (to be codified in 2 USC. § 1501).

[35] Executive Order No. 12,866 establishes a requirement of cost-benefit analysis. 3 CFR (1994) 638. See also the well-known Reagan era predecessor, Executive Order No. 12,291, 3 CFR (1981) 127.

recognizing that benefits and costs cannot be limited to those that may be monetized. A 'global' cost-benefit analysis would simply add international concerns to the domestic evaluation.[36] These might include trade concerns, but might also include, *inter alia*, issues of externalization and the desire for explicit or implicit cooperation with other states.[37] Of course, once global cost-benefit analysis begins to include in its calculation adverse effects of regulation on foreign persons, either in the form of non-pecuniary or pecuniary externalities, some kinds of regulation will appear more costly. On the other hand, regulation that protects foreign persons or removes externalities will appear more beneficial. Environmentalists and deregulators alike would be required to accept the consequences of thinking globally and acting locally.

A comparative global perspective would compare the cost-benefit profiles of various combinations of national regulation and international discipline of national regulation in a dynamic evaluative setting. Comparative cost-benefit analysis maximizes the sum of (i) benefits of free trade plus (ii) loss of benefits of regulation.[38] While it has

[36] Cost-benefit analysis must 'include all costs and all benefits of a programme, no matter to whosoever they accrue, over as long a period as is pertinent and practicable'. Klarman, 'Application of Cost Benefit Analysis to Health Services', 4 *Int'l J. Health Serv.* (1974) 326. But see the Unfunded Mandates Act, *supra* note 34, §§ 202, 205 (excluding effects on foreign governments, and perhaps implicitly including only US private sector effects); *Economic Analysis of Federal Regulations under Executive Order 12866*, a report dated 11 January 1996, prepared by an interagency group convened by the Administrator of the Office of Information and Regulatory Affairs of the Office of Management and Budget, available at http://www.whitehouse.gov/WH/EOP/OMB/html/miscdoc/riaguide.html#select. This report makes the following statement on international effects: 'Regulations limiting imports — whether through direct prohibitions or fees, or indirectly through an adverse differential effect on foreign producers or consumers relative to domestic producers and consumers — raise special analytical issues. The economic loss to the United States from limiting imports should be reflected in the net benefit estimate. However, a benefit-cost analysis will generally not be able to measure the potential US loss from the threat of future retaliation by foreign governments. This threat should then be treated as a qualitative cost ...' This provision would only consider effects outside the US indirectly, at best. A further important question is which types of domestic benefits may be considered: Can the benefits of protection of local industry and jobs be included on the benefit side of the equation? We ordinarily would not include such pecuniary externalities in the equation, but it is important to recognize that these considerations are critical in political contexts and that any equation that did not reflect them would have little predictive power. Furthermore, can the benefits of re-election or other benefits to politicians and bureaucrats derived from protectionism be included? See Jones and Cullis, 'Legitimate and Illegitimate Transfers: Dealing with "Political" Cost-Benefit Analysis', 16 *Int'l Rev. L. & Econ.* (1996) 247. A full theory would respond to these questions.

[37] This fact indicates the need for greater functional integration in international society. While the GATT/WTO system is concerned with trade matters, and its cost-benefit analysis would not address, for example, international environmental benefits, it is necessary to include all costs and all benefits in an integrated analysis.

[38] This maximization formula is congruent with the minimization formula posited by new institutional economics scholars in respect of institutions more generally. 'Institutions will be chosen that minimize total costs, the sum of transformation and transaction costs, given the level of output.' North and Wallis, 'Integrating Institutional Change and Technical Change', 150 *J. Inst. & Theo. Econ.* (1994) 609. 'Economizing takes place with reference to the sum of production and transaction costs, whence trade-off in this respect must be recognized.' O.E. Williamson, *The Economic Institutions of Capitalism* (1985), at 22. Trade-off devices are created in a broader institutional context, where the creation of the device itself is a transaction in which we might expect similar maximization. There are important transaction cost, gain

some unique and substantial benefits, it also has many faults. Of course, merely recognizing these faults is an insufficient basis for determining not to use it: assuming acceptance of the proposition that trade-off is necessary, we must find a device that is superior. We shall now evaluate some of the parameters by which comparative cost-benefit analysis might be compared with other trade-off devices: (i) maximization of net gains of trade and regulation, (ii) administrability, (iii) distributive concerns, (iv) moral concerns and (v) theoretical concerns. These factors are not themselves commensurable, and so we cannot place them on a simple tote-board to determine when comparative cost-benefit analysis should or should not be used. Rather, they must be examined and subjected to political or deliberative analysis in order to decide which device should be used in particular circumstances.

B *Maximization of Net Gains of Trade and Regulation*

By definition, comparative cost-benefit analysis is a relentless search for the solution that results in maximum net gains of trade and regulation. As noted above, one element of such maximization involves the inclusion of global effects, which may be examined using either the rhetoric of efficiency and externalization or the rhetoric of political legitimation. These two rhetorics form two sides of the same coin.

One of the main arguments in favour of the use of the dormant commerce clause in the US has been the problem of exclusion of affected foreign parties from the political process:

> Underlying the stated rule has been the thought, often expressed in judicial opinion, that when the regulation is of such a character that its burden falls principally upon those without the state, legislative action is not likely to be subjected to those political restraints which are normally exerted on legislation where it affects adversely some interests within the state.[39]

This statement by Justice Stone reflects economic theory relating to externalities: states may be expected to seek, where possible, to impose costs on outsiders. Such externalization is often presumed inefficient because the decision-makers do not take all of the costs of action into account, although Coase has shown the problematic nature of this proposition.[40] It is also seen as illegitimate insofar as the persons making the decisions are not the ones who will bear their full consequences. Thus, in the commerce clause context, Tushnet has argued that '[a] national viewpoint must be inserted in the process if the real costs are to be fully considered. In a sense, national

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and loss reasons arising at the level of creation of trade-off devices that may explain why the devices we observe fall short of comparative cost-benefit analysis. Thus, while the formula described above is particularistic, there may be significant cost savings that could be derived from treating groups of somewhat diverse cases similarly. In addition, we must recognize that there are limits on the number of hypothetical solutions that can be evaluated: our maximization efforts would be rationally ignorant.

[39] *South Carolina State Highway Department v. Barnwell Bros., Inc.*, 303 US (1938) 177, at 185 note 2 (citations omitted).

[40] See Coase (1960), *supra* note 9.

supervision is designed to guarantee that the external costs of regulation are considered by local legislatures'.[41]

1 Externalization and Prescriptive Jurisdiction

Thus, an initial issue for any trade-off device to address is the degree of externalization: How much of the effects of a local measure are felt externally, measured in either relative (percentage of total effects) or absolute (magnitude of external effects) terms?[42] In other words, how much jurisdictional overlap exists? It is important to note that the amount of overlap depends on horizontal allocation of prescriptive jurisdiction, i.e. on how prescriptive jurisdiction is allocated among states. It is possible in theory, but not in practice, to devise rules of prescriptive jurisdiction that would be ideal in fiscal federalism terms in that they would exclude overlap.[43] This would eliminate the externality problem discussed above and substitute a significant accounting or jurisdiction allocation problem.[44]

Levmore argues that in a specific type of externalization — cases of exploitation by one state of monopoly power to the disadvantage of outsiders — a per se rule of invalidity should apply.[45] In the case of mere 'interferences' with interstate commerce, on the other hand, he argues for cost-benefit analysis. He thus limits the scope of applicability of cost-benefit analysis. Levmore generalizes his exploitation-interference dichotomy by arguing that in circumstances in which externalization is greater, judicial scrutiny should be greater.[46] This is justified as a proxy for a balancing test: where externalization is greater, there is less likely to be a countervailing local benefit. However, this is not a per se rule. In some cases, cost-benefit analysis may indicate that a local regulation is justified even if most of the cost side falls on non-residents.[47]

Implicit in Levmore's distinction is a comparative institutional analysis that prefers to leave decisions to state political processes where they are likely to fully evaluate costs as well as benefits.[48] Where the state political processes cannot be expected to reach a globally efficient position, due to the accentuated capacity to externalize, he

[41] Tushnet, 'Rethinking the Dormant Commerce Clause', 1979 *Wisc. L. Rev.* (1979) 125, at 143.

[42] For a review of the economics of externalization, see Cropper and Oates, 'Environmental Economics: A Survey', in 30 *J. Econ. Lit.* (1992) 675, at 677.

[43] See Trachtman, 'Externalities and Extraterritoriality: The Law and Economics of Prescriptive Jurisdiction', in J. Bhandari and A. O. Sykes, *Comparative Aspects of International Law* (forthcoming 1998) (analogizing rules of prescriptive jurisdiction in international society to rules of property in domestic society).

[44] See Epstein, 'Holdouts, Externalities and the Single Owner: One More Salute to Ronald Coase', 36 *J. Law & Econ.* (1993) 553.

[45] Levmore, *supra* note 30, at 567. See also Easterbrook, 'Antitrust and the Economics of Federalism', 26 *J. L. & Econ.* (1983) 23.

[46] Levmore, *supra* note 30, at 610 ('In examining local regulations, courts should be more suspicious of those imposing substantial costs out-of-state than those placing costs primarily within the legislating jurisdiction').

[47] Of course, this leaves open a significant distributive issue. See Leboeuf, 'The Economics of Federalism and the Proper Scope of the Federal Commerce Power', 31 *San Diego L. Rev.* (1994) 555.

[48] See also *ibid*; Tushnet, *supra* note 41, at 132–133.

would truncate the analysis and simply hold the state legislation invalid. To the extent, on the other hand, that costs are borne internally, by domestic consumers or others, there is less reason to expect the state political process to act inefficiently, and so a *per se* rule of invalidity is not appropriate.

However, externalization cannot be the lone touchstone for determining when local legislation must fall to integrationist goals.[49] First, externalities are extremely difficult to define. Second, the Coase theorem[50] has exposed the distributive ramifications, and inescapably value-laden nature, of the definition of externalities and decisions to 'internalize' externalities.[51]

2 *Representation and Legitimation*

As noted above, externalization and political legitimation through representation are two sides of the same coin: one in economic terms and the other in political terms. The exclusion of foreigners argument includes, or, translated from economic into political terms, is, a claim regarding legitimacy — that the internal political process is insufficient to legitimate the application of domestic law to the disadvantage of foreigners, who, by definition, have not participated in the formal political process that led to the legislation.[52] However, the suggested remedies for this alleged illegitimacy raise other issues of legitimacy: (i) is it appropriate for central decision-makers to override local decisions, and (ii) are central courts the appropriate forum to do so? These questions combined ask whether central courts should supervise local legislatures, thereby raising the 'government close to the people' concern of subsidiarity. They thus recall at least part of the legitimacy problem with Lochner era substantive due process.[53] In a sense, the rejection of Lochner[54] is a recognition that efficiency cannot be determined in the abstract, but only by political processes.[55] This point is central to the discussion of courts versus legislatures, and is

[49] But see Leboeuf, *supra* note 47 (arguing that externalization is the appropriate touchstone).

[50] For a summary and reference to further literature, see Cooter, 'The Coase Theorem', in *The New Palgrave: A Dictionary of Economics* (1987) 457, at 457–460. See also Hoffman and Spitzer, 'The Coase Theorem: Some Experimental Tests', 25 *J. L. & Econ.* (1982) 73; Cooter, 'The Cost of Coase', 11 *J. Leg. Stud.* (1982) 1.

[51] See B. Ackerman, *Reconstructing American Law* (1984), at 46–60.

[52] Regan refers to this argument as the Carolene Products theory of the dormant commerce clause. Regan, *supra* note 31, at 1103: 'The central idea of [this theory] is that the courts should supervise state economic regulation in order to guarantee that out-of-state interests, which are unrepresented in the legislature that produced the regulation are fairly treated.' See also *ibid.* at 1160–1167; *United States v. Carolene Products Co.*, 304 US (1938) 144, and especially note 4 thereof, which suggests a process or representation basis for judicial review. For a proponent of this theory, see Tushnet, *supra* note 41. See also L. Brilmayer, *Conflict of Laws: Foundations and Future Directions* 206 (1991) (arguing against the application of one state's laws to impose costs on persons not part of its political community).

[53] *Lochner v. New York*, 198 US (1905) 45. Justice Peckham's majority opinion in Lochner speaks of a means-ends rationality type review, 198 US, at 57–58. Tushnet draws the parallel between substantive due process and commerce clause balancing. Tushnet, *supra* note 41, at 143–150.

[54] *West Coast Hotel Co. v. Parrish*, 300 US (1937) 379.

[55] However, Lochner might be resurrected by the recognition that adjudication too is a political process, or at least the exercise of power delegated from the political process.

elaborated throughout this article. One difference between substantive due process and commerce clause balancing is that, as noted above, the latter always includes an additional set of values that are not normally expected to be incorporated in the deliberations of local legislatures.[56] The argument from representational legitimacy, like the argument from externalization, seems to have a reciprocal nature in the Coasean sense.[57]

C *Administrability: Standards versus Rules and Courts versus Legislatures*

Administrability is an important parameter by which to critique comparative cost-benefit analysis, as the latter entails substantial costs of administration: the costs of evaluating regulatory and trade costs and benefits. One way of evaluating administrability is by reference to the distinction between a standard and a rule. In this sense, comparative cost-benefit analysis is a standard, while a trade-off device such as national treatment or simple means-ends rationality testing may be considered more rule-like. These two devices, for example, are less likely to invalidate local regulation, leaving it to the political process to address inefficiencies remaining when local legislation is left standing. Therefore, administrability also implicates the choice of courts versus legislatures as institutional devices for making trade-offs.

1 Standards versus Rules

Proportionality, balancing and cost-benefit analysis rebel against legal formalism, holding that mere categories are insufficient to determine rights but that evaluative measures must be applied. Legal formalism is thus hostile to these trade-off devices.[58] However, Sullivan counters that '[s]tandards make visible and accountable the inevitable weighing process that rules obscure'.[59] One might restate this observation to the effect that standards make weighing occur on a case-by-case basis at the court level, while rules are the result of generalized preweighing at the legislative level.

In terms of administrability, it seems that rules would be preferred to standards as a general matter. They facilitate planning by private actors and reduce the costs of adjudication after activity has occurred. However, there are many detailed and situation-specific factors to consider in comparing rules with standards. Putting aside the institutional choice between courts and legislators, Kaplow analyses the choice in

[56] There is, however, an argument that local legislatures would consider 'global' values in order to induce reciprocity, or as a matter of specific agreements (subject to the Compacts Clause, US Const., Art. 1, § 10, within the US) between local governments.

[57] See *supra* note 22.

[58] On the issue of formal rules versus standards, see Ehrlich and Posner, 'An Economic Analysis of Legal Rulemaking', 3 *J. Legal Stud.* (1974) 257; Diver, 'The Optimal Precision of Administrative Rules', 93 *Yale L. J.* (1983) 65; Sullivan, 'The Supreme Court, 1991 Term — Foreword: The Justices of Rules and Standards', 106 *Harv. L. Rev.* (1992) 24; Kaplow, 'Rules Versus Standards: An Economic Analysis', 42 *Duke L. J.* (1992) 557; Hadfield, 'Weighing the Value of Vagueness: An Economic Perspective on Precision in the Law', 82 *Cal. L. Rev.* (1994) 541; Cass, 'Judging: Norms and Incentives of Retrospective Decision-making', 75 *B.U.L. Rev.* (1995) 941.

[59] Sullivan, *supra* note 58, at 67.

terms of the costs of promulgation, of learning the law, of compliance advice, error costs due to over-inclusiveness or under-inclusiveness, flexibility, predictability, enforcement costs and consistency.[60] He concludes that the 'central factor influencing the desirability of rules and standards is the frequency with which a law will govern conduct. If conduct will be frequent, the additional costs of designing rules — which are borne once — are likely to be exceeded by the savings realized each time the rule is applied.'[61] Conversely, '[i]f behavior subject to the law is infrequent, ... standards are likely to be preferable'. 'Of particular relevance are laws for which behavior varies greatly, so that most relevant scenarios are unlikely ever to occur.'[62] Perhaps international society as it stands today may be viewed as an example of a context in which 'trade and ... problems' have thus far occurred with relative infrequency, making use of a standard appropriate. As these problems occur with greater frequency, legislation of specific rules may become appropriate.[63]

Of course, even formal rules have potentially significant costs: the exceptions, and their determination, may devour the administrability of the rule. In practice, courts may develop distinctions, exceptions and strained interpretations in order to allow a vision of substantive justice to triumph over predictability and administrability.

Hadfield applies an incomplete contracts analysis to vague statutes, which we in turn can apply to vague constitutions and treaties.[64] These may be optimally incomplete with appropriate instructions to decision-makers to complete the 'contract' in particular cases. The parameters to consider include (i) the costs of advance specification, (ii) the stochastic nature of the future, (iii) the ability to customize to particular facts in specific cases, and (iv) the potential value of diversity of compliance techniques.

2 Courts versus Legislatures

As part of the decision whether, and to what extent, central supervision of local regulation is efficient, it is necessary to determine whether the central supervision should be effected by adjudicative or legislative institutions. While this article does not address the way that legislatures make trade-offs, legislation represents the default option, preferred by many, for making trade-offs. Choice of a less intrusive judicial device is consonant with an emphasis on central legislative action to make trade-offs. There are several issues that affect the choice between legislation and adjudication in

[60] Kaplow, *supra* note 58.

[61] *Ibid.* at 621.

[62] *Ibid.*

[63] It is important to recognize, as Kaplow does, that standards may gradually be transformed into rules through the doctrine of *stare decisis*: rules may evolve from standards. Thus, in the trade-off context, once a case is litigated with respect to the regulatory measure at issue, the standard is transformed to a rule: the regulatory measure is either valid or invalid for all subsequent cases involving all other private actors. Finally, Kaplow considers the costs, in terms of predictability and learning the law, of delay in promulgating specific rules, either legislatively or through precedent. He shows how the accuracy benefits that may be derived from delay and additional experience may be overwhelmed by such costs. *Ibid.* at 622–623.

[64] Hadfield, *supra* note 58, at 547.

this context. The first that we will address is institutional competence. Second is the dichotomy examined above between rules (which purport to give more control to the legislator) and standards (which purport to confer a measure of discretion to the adjudicator). Third, and most important, is the question of which institution best reflects constituent interests, i.e. best serves as a forum for the revelation of preferences. Fourth, and most sophisticated, is the question of how central adjudicative and legislative institutions work together and how they work with local legislators.

It is a commonplace that legislatures, the consummate political branches, are best able to engage in subtle balancing and weighing of competing social interests.[65] Like other common knowledge, the origins and bases of this notion are often forgotten. '[T]he competing considerations in cases involving state proprietary action often will be subtle, complex, politically charged, and difficult to assess under traditional Commerce Clause analysis. ... [T]he adjustment of interests in this context is better suited for Congress than this Court.'[66] However, given the realist and critical insight that judicial decisions inevitably are also politically charged, and given the fact that all good adjudication is subtle and complex, this commonplace may be usefully subjected to further analysis. While it is suspect as a matter of bureaucratic institutional competence, it may be revalidated by virtue of the fact that legislatures provide a more direct forum for revelation of individual preferences than do courts.

'...I do not know what qualifies us to make ... the ultimate (and most ineffable) judgment as to whether, given importance-level x, and effectiveness-level y, the worth of the statute is "outweighed" by impact-on-commerce z.'[67] This statement adds to our discourse in two ways. First, it frames cost-benefit analysis in something akin to Hand Formula terms. By doing so, it implicitly raises the question — if courts can balance this way in negligence cases — why can they not balance this way in interstate or international commerce cases? Second, in this statement, Scalia asks the question that this article must begin to address: What qualifies courts to engage in cost-benefit analysis? Academic commentators often beg the question of judicial competence to engage in balancing or cost-benefit analysis. Consider the following statement by Regan:

> The court has no warrant for second-guessing the [state] legislature either about what counts as a good effect (providing the legislature is not aiming at something forbidden, which gets us back to the purpose inquiry), or about the valuation of the good effect ... or about just how much of the good effect is actually achieved. For that matter, the court has no basis for deciding how bad is what would have to be regarded as the bad effect in a balancing analysis, namely the diversion of business ....[68]

[65] But see the social choice critique of collective decision-making.

[66] *Reeves, Inc. v. Stake*, 447 US (1980) 429, at 439.

[67] *CTS Corp. v. Dynamics Corp. of America*, 481 US (1987) 69, at 95 (Scalia, J., concurring in part and in judgment). See Sullivan, *supra* note 58, at 84 (Scalia would 'deconstitutionalize issues and remit to politics'). See also Segall, 'Justice Scalia, Critical Legal Studies, and the Rule of Law', 62 *Geo. Wash. L. Rev.* (1994) 991, at 1012.

[68] Regan, *supra* note 31, at 1131. See also *infra* note 74.

First, Regan appears to be referring to state (not federal) legislatures as the appropriate evaluators of good effects. Accepting this assumption, we may consider that the state may also enter into agreements with other states in order to maximize good effects. Similarly, each individual is presumptively the best observer of his own values. However, when an individual enters society, he or she accepts that the things he values may be evaluated, and traded off, differently by a court. Again, negligence law provides an apt example. Thus, when a state enters a federation or economic integration organization, it may choose to accept that the things it values may be evaluated differently by that organization's organs. If it does not, it would not allocate power over those issues to the organization. While within the United States, this contractarian perspective may be stale, in the sense that it was more or less true in 1787, but may no longer be true today, the GATT/WTO and EU social contracts comprise fresh examples of states giving up autonomy in exchange for reciprocal action by other states.[69] The question Regan begs is whether or not the states have done so.

Second, Regan argues that the bad effects can only be measured by reference to the economic status quo, and that neither an individual state nor the collectivity has any legally cognizable interest in maintaining the status quo. This intriguing and revolutionary argument cannot be accepted, as it would lead to great loss and to a Hobbesian war of all against all. Moreover, it is inconsistent with the notion of Pareto efficiency, which looks to whether any person is made worse off, given the status quo. Regan's approach would allow states 'incidentally' to confer grave detriments on other states, in pursuit of even the smallest benefit at home. It would allow the growth of large and disproportionate barriers to trade. Consider the potential consequences to domestic society if there were no legally cognizable property rights — no legally cognizable interest in maintaining the status quo. Individuals would engage in activities without regard for the interests of their neighbours, and chaos would result. We have property rights and liability rules in domestic society to avoid such chaos. It is strange to suggest that interstate or international society is so different as to render inapplicable these basic tools of social order.[70]

In the end, it is necessary simply to recognize that the policy opinion offered by Regan when he stipulates that 'provided they do not single out foreigners, the states need not attend positively to the foreign effects of laws they adopt nor to the distribution between locals and foreigners of the benefits and burdens of those laws'[71] is unsupported by either theoretical or empirical argument. Federal governments like

[69] See Trachtman, *supra* note 20.

[70] See Trachtman, *supra* note 43.

[71] Regan, *supra* note 31, at 1165. Regan himself is not completely comfortable with this proposition, suggesting that 'interstate comity should prevent a state from passing a law which it knows will impose large costs out-of-state and which secures only a trivial local benefit.' *Ibid.* at 1167. This is a thread that, if pulled, would unravel the rest of Regan's argument, for what is comity but a kind of meta-law and what is this formulation but a proportionality test? Regan stipulates suggestively but delphically that this comity 'should not be judicially enforced in the present context'.

the US, regional integration organizations like the EU, and international organizations like the WTO exist not simply to police discrimination,[72] and have seen fit through both legislative and adjudicative action to enhance regulatory cooperation in more intrusive respects.[73] Why would these entities simply leave the gains from this type of cooperation on the table? Implicit in Regan's argument, but not analytically supported, is the assumption that this cooperation should be effected by legislative bodies but not through adjudicative bodies.

Certainly, individual courts seem to have fewer analytical resources at their disposal than the US Congress.[74] However, if magnitude of these resources were the only determinant of whether courts should decide cases, there might never be any adjudication. Is the trade-off question special in a way that indicates that it should be answered legislatively rather than judicially? One important respect in which it is special is that it is a constitutional, or meta-legislative, question: it deals with the allocation of power to legislate. Of course, in the horizontal, as opposed to vertical, federal context, courts deal with this problem frequently, under the label of 'conflict of laws' or 'prescriptive jurisdiction'.[75] In addition, courts are frequently called upon to apply constitutional rules to invalidate legislative acts: this is what constitutional rules are for, and this is what judicial review is for.[76] Courts are required to balance and integrate multiple social values in most types of cases, including, as mentioned above, tort cases (applying the Hand Formula), choice of law decisions (applying the 'modern' approach that requires balancing of multiple factors) and various types of constitutional judicial review. In each of these types of cases, courts implicitly balance or decide who balances, with or without the benefit of a legislated rule.

Courts have the ability to engage in context-specific analysis, whereas statutes are usually for general application. To the extent that rules differ from standards, the establishment of standards delegates substantial work to courts. In the US dormant commerce clause context, 'courts created the doctrine early, and undertook to

[72] As shown below, anti-discrimination rules are unstable, and shade into proportionality testing, necessity testing, balancing and perhaps cost-benefit analysis in a way that renders untenable the argument that 'simple' anti-discrimination is sufficient.

[73] See Trachtman, *supra* note 20.

[74] The conventional argument based on judicial competence is framed as follows: 'The judiciary has less access to relevant information than does Congress, which can marshall its committee and agency resources to hold hearings and engage in debate before deciding the matter at hand. While this can be said of any decision of the judiciary, it is of particular import in dormant commerce clause cases because the decision made under the dormant commerce clause is essentially a legislative determination.' Redish and Nugent, 'The Dormant Commerce Clause and the Constitutional Balance of Federalism', 1987 *Duke L.J.* (1987) 569, at 594. While the first quoted sentence is no doubt true, its relevance is rebutted by the first clause of the second quoted sentence. More importantly, the second clause of the second quoted sentence does no more than beg the relevant question.

[75] See, e.g., Trachtman, *supra* note 43.

[76] But see Henkin, 'Infallibility under Law: Constitutional Balancing', 78 *Colum. L. Rev.* (1978) 1022, at 1041 arguing that in the commerce clause context, courts 'weigh, not constitutional values which have been specially committed to their care, but economic, social, and political data, and they make projections that are normally committed to legislatures and that have presumably been weighed by a state legislature beforehand'.

monitor it, because Congress could not anticipate and provide for every conceivable impingement on interstate commerce, and the Union might not have survived if the courts had not intervened'.[77] Courts have the ability to accept a general bargain from legislatures and to implement that bargain in particular cases.

3 Institutional Synergies: Central and Local, Legislative and Adjudicative

In the common law, property rights and liability rules developed initially through the elaboration of rules by iterative adjudication. Especially in the area of nuisance, a hybrid of property rights and liability, judicial balancing is the rule, at least in the US. It is open to legislatures to override or supplement common law rules, and this happens often, given the fact that in domestic society we have well-developed legislative capacity. The same is true in the US federal system and in the EU's common market: adjudication works together with legislation, and legislation intercedes where the legislature determines that adjudication produces an inadequate outcome. The EU provides a vivid example of this type of interaction.[78] There are also interactions and synergies between adjudicative and legislative decision-making in the US system.[79]

Redish and Nugent argue that state statutes within the US should be excluded from judicial review under the dormant commerce clause because Congress can legislatively 'review' and invalidate state statutes under the supremacy clause and because the states 'have a special ability to protect their interests through resort to the national political process'.[80] This is an argument against the doctrine of implicit pre-emption, which allows local regulatory barriers to trade to be addressed by courts prior to the legislation of specific (and supreme) central law. The argument in favour of dormant commerce clause pre-emption is bureaucratic and political. It relies on the assertion that central legislatures are constrained by time and politics so that they cannot address all of the trade barriers that local legislatures might create, and thus need pre-emptive assistance from courts. Furthermore, it is worth noting that pre-emption simply reverses the bureaucratic burden of seeking central legislation, as, in the

[77] *Ibid.* at 1041 (citations omitted).

[78] See Nicolaïdis, 'Comment', in A.O. Sykes, *Product Standards for Internationally Integrated Goods Markets* (1995), at 143–146. See also Lenaerts, 'Two Hundred Years of U.S. Constitution and Thirty Years of EEC Treaty — Outlook for a Comparison', in K. Lenaerts (ed.), *Two Hundred Years of U.S. Constitution and Thirty Years of EEC Treaty: Outlook for a Comparison* (1988), 17. Lenaerts views the 30 years from 1957 to 1987 as the EU's 'confederal' period, during which unanimity was required for action, resulting in less than satisfactory progress.

[79] Henkin points out that '[e]arly intervention by the courts, of course, permitted Congress to avoid addressing problems and issues, and may have deterred Congress also from assigning them to regulatory agencies. In fact, the courts have become a kind of regulatory agency applying doctrine that they create and develop, but that is ultimately under congressional control.' Henkin, *supra* note 76, at 1041.

[80] Redish and Nugent, *supra* note 74, at 594. 'Given their origin as negative judicial inferences from a constitutional grant of power to Congress, the Supreme Court's doctrinal limitations on state interference are always subject to congressional revision.' L.H. Tribe, *American Constitutional Law* (1988), at 403 (citations omitted). See *Whitfield v. Ohio*, 297 US (1936) 431, at 440; *In re* Rahrer, 140 US (1891) 545, at 561.

dormant commerce clause and EU Article 30 context, judicial invalidations may generally be 'reversed' legislatively.[81] Thus, Congress may eliminate any commerce clause problem with state legislation, and may reverse a judicial determination of invalidity of state legislation under the commerce clause. On the other hand, the possibility of legislative reversal may help to legitimate and embolden judicial action invalidating state laws.[82] The EU system lacks the broad legislative capacity of the US Congress and the WTO is totally lacking in conventional legislative capacity.

In each of the circumstances studied in this paper — the EU, the GATT/WTO and the US — the need to establish free trade has challenged local prerogatives. In fact, the expansive definition of trade or commerce in the EU and the US has significantly eroded the notion that there is a hard core of sovereignty reserved to their components.[83] Of course, many worry about both these challenges to state sovereignty and about those posed by the GATT/WTO system as it expands and deepens its coverage of issues traditionally considered part of the *domaine reservé*.[84] However, the larger threat to sovereignty seems to come from the legislative capacity of the federal government in the US and of the EU institutions in the EU. This is a critical institutional difference between the US and EU, on the one hand, and the WTO, on the other. The dormant commerce clause and Articles 30 and 36 provide negative integration, but there is ample legislative capacity for positive integration, assuming political will. In the GATT/WTO system, there is little realized legislative capacity, and thus it is impossible to produce the kind of pro-integration judicial-legislative dynamic that has proven so powerful in the EU.[85]

[81] That is, Congress may authorise the states to take action that would otherwise be pre-empted. *Prudential Insurance Co. v. Benjamin*, 328 US (1946) 408; *Western & Southern Life Ins. Co. v. State Board of Equalization*, 451 US (1981) 648, at 658. See Levmore, *supra* note 30, at 567 (arguing that the Court should base its review of state statutes on the commerce clause, rather than other, less reversible, grounds).

[82] See Tribe, *supra* note 80, at 404.

[83] As to the EU, see Lenaerts, 'Constitutionalism and the Many Faces of Federalism', 38 *Am. J. Comp. L.* (1990) 205; Dehousse, 'Integration v. Regulation? On the Dynamics of Regulation in the European Community', 30 *J. Common Mkt. Stud.* (1992) 383. For an interesting dialogue on this issue, see Schilling, 'The Autonomy of the Community Legal Order: An Analysis of Possible Foundations', 37 *Harv. Int'l L. J.* (1996) 389, and the response in Weiler and Haltern, 'The Autonomy of the Legal Order — Through the Looking Glass', 37 *Harv. Int'l L.J.* (1996) 411. As to the US, see the discussion of cumulative effects on interstate commerce in Tribe, *supra* note 80, at 310–311.

[84] See, e.g., Lenaerts, *supra* note 83, at 220 ('There simply is no nucleus of sovereignty that the Member States can invoke, as such, against the Community'); *Garcia v. San Antonio Metropolitan Transit Authority*, 469 US (1985) 528, at 552 ('In short, the Framers chose to rely on a federal system in which special restraints on federal power over the States inhered principally in the workings of the National Government itself, rather than in discrete limitations on the objects of federal authority'). In *New York v. United States*, 505 U.S. (1992) 144 and *United States v. Lopez*, 514 US (1995) 549, the Supreme Court has shown at least some willingness judicially to circumscribe federal power.

[85] See Weiler, 'The Transformation of Europe', 100 *Yale L.J.* (1991) 2403.

D *Distributive Concerns*

It is impossible to separate issues of externalization and representational legitimation from issues of distribution. We considered externalization and legitimation above from the standpoint of whether the interests of foreigners are taken into account in the decision process; here, we examine whether those who lose due to the decision finally taken are compensated for their loss. Interestingly, none of the trade-off devices considered here provide for any direct compensation.

The US commerce clause is often justified by reference to the political utility of economic union, and to the value of avoiding the jealousies, resentment and retaliation that might arise from state actions that harm outsiders.[86] The EU's goal of economic union also has political motivations, and the GATT/WTO system also seeks, perhaps less explicitly and more indirectly, to promote political harmony. These political goals may be recharacterized as problems of distributive effects: the distributive effects of local law should not be, and should not be seen to be, too adverse for a particular outside group, or for the group of outsiders as a whole.[87] Thus, even where the global costs of a local law are less than its global benefits, it is worth considering the distribution of those costs and benefits. There are several ways of rationalizing the inclusion of distributive concerns in our analysis. First, in the standard analysis, economic efficiency is compromised for the political stability that arises from a certain distribution of incomes. Second, and more complex and theoretically challenging, economic efficiency is defined broadly enough to encompass non-'economic' values, such as political stability born of narrower distribution of incomes. In both cases, it is recognized that a trade-off between efficiency (in the form of maximization of net gains) and distribution is rational; the only question is whether the trade-off is one that economics can address.

Considering economic efficiency and distribution in the first sense, it is clear that one of the central issues in analysis of 'trade and ... problems' is the distributive consequences of any determination: trade-off problems arise where increased freedom of trade comes at the expense of local regulatory benefits and, conversely, local regulatory benefits give rise to costs in trade terms. The trade costs fall on outsiders, as well as local consumers, and standard public choice theory indicates that local producers will often prevail. From a practical and strategic standpoint, distributive consequences may stand in the way of change: state A may request that state B revise its regulation in order to ameliorate adverse trade consequences to state B, and state A may refuse because the requested revision would confer a detriment on its residents, without consideration of the relative magnitude of the detriment conferred on state B residents.

[86] See Regan, *supra* note 31, at 1114–1115, note 55. But see Kitch, *supra* note 18.

[87] See Maloney, McCormick and Tollison, 'Economic Regulation, Competitive Governments, and Specialized Resources', 27 *J. L. & Econ.* (1984) 329, at 330 ('Economic regulation will be less costly for vote-maximizing regulators to supply where the primary costs of cartelization are borne by consumers in foreign jurisdictions.').

A state of affairs like that described above is Pareto efficient if it is impossible to improve the welfare of state B without diminishing the welfare of state A (and vice-versa). Thus, assuming for a moment that it is impossible to bribe state B, the Pareto efficiency criterion will not examine the relative size of the detriments, and will accept this state of affairs, even if it could be shown that the regulatory benefit to state B is only worth $1,000,000, while the trade detriment to state A is worth $10,000,000. However, if representatives of state A can communicate, negotiate and contract with state B to divide the $9,000,000 surplus, they would be expected to do so. Thus, if transaction costs are less than the surplus, this state of affairs is not Pareto efficient, and such procurement of consent is an acceptable means of reaching Pareto efficiency.

In law and economics, it is not uncommon to use a slightly different test of efficiency: potential Pareto efficiency, otherwise known as Kaldor-Hicks efficiency.[88] Another way of looking at potential Pareto efficiency is that it would be equivalent to Pareto efficiency, assuming a condition of zero transaction costs (and perhaps also no strategic behaviour). Potential Pareto efficiency merely requires that enough surplus be generated to compensate the injured outsiders, without concerning itself with whether compensation is actually paid, or whether the transaction costs of such payment exceed the surplus generated, in which case it would not be expected that compensation be paid. In other words, a particular move is potential Pareto superior to the status quo if its net benefits exceed those of the status quo, and it is potential Pareto efficient if its net benefits exceed those generated by any other conceivable structure.[89]

Potential Pareto efficiency assumes away transaction costs and the problem of distribution, but reaches a potentially higher aggregate net benefit, and assumes that transactions will occur to reach that higher aggregate net benefit. For this reason, potential Pareto efficiency is often an unsatisfactory policy tool: it cannot be assumed that a potential Pareto efficient state of affairs will be reached, due to the actual existence of transaction costs. Thus, a tribunal applying cost-benefit analysis would be well-advised to consider the potential for redistributive transactions between the principals as well as the distributive consequences of its decision. Potential Pareto efficiency is often eschewed by liberal economists because it allows policy changes to be justified without regard to their distributive consequences: a regulatory change that benefits the rich more than it harms the poor would be validated under potential Pareto efficiency, but invalidated under Pareto efficiency analysis.

In the real world, redistributive pay-offs may be direct and in cash, but more frequently, especially in the international context, they will take the form of formal or

[88] See Hicks, 'The Valuation of the Social Income', 7 *Economica* (1940) 105, at 110; Kaldor, 'Welfare Propositions of Economics and Interpersonal Comparisons of Utility', 49 *Econ. J.* (1939) 549, at 550. See also R.A. Posner, *Economic Analysis of Law* (1992), at 13–14.

[89] See Keating, 'Reasonableness and Rationality in Negligence Theory', 48 *Stan. L. Rev.* (1996) 311, at 333.

informal, diffuse or narrow, reciprocity.[90] Often, redistributive pay-offs are agreed and then required pursuant to law or other institutional arrangements. For example, agreement to legislate by majority vote, as in the EU, may be viewed as an institutional structure for an unspecified, and only partially anticipated, series of transactions.[91] Agreement to a particular trade-off device to be applied by an adjudicative tribunal may be viewed similarly. Sometimes you will be disciplined and sometimes I will be disciplined: we will receive roughly equivalent pay-offs, and even if in the fullness of time yours turns out to be larger, the present value of mine is larger than what I would have received without such agreement.

Potential Pareto efficiency is an armchair mechanism for striking hypothetical bargains. The armchair academic speculates as to what people want and calculates a bargain that they might enter into to maximize the aggregate preferences of the participants. Therefore, potential Pareto efficiency has two problems. First, we have little basis for confidence that its speculated preferences are correct. Second, its phantom compensation raises the spectre of adverse distributive effects.

E *Moral Concerns: Commensurability*

Coincident with the rise of cost-benefit analysis in environmental and other regulatory areas, and its use and misuse to restrain such regulation, a critical literature has developed, suggesting problems with this form of testing.[92] This literature has criticized cost-benefit analysis both in theory and in practice. Some of the practical critiques as used are clearly correct. For example, cost-benefit analysis that considers only regulatory costs, or only monetary costs and benefits, is simply ignorant, unless there is a transaction cost or other plausible justification for ignoring benefits and other costs. The more serious critiques, of the more thoughtful form of cost-benefit analysis, argue that this analysis relies on commensuration, which is (a) morally deficient and (b) theoretically objectionable as it involves inter-personal comparisons of utility.[93]

[90] See R. Axelrod, *The Evolution of Cooperation* (1984) (demonstrating that under repeated play circumstances, the prisoner's dilemma may be resolved by 'tit for tat' strategies that signal and reward cooperation, and punish defection). Axelrod's work has been extensively critiqued.

[91] See generally G. Brennan and J.M. Buchanan, *The Reason of Rules: Constitutional Political Economy* (1985).

[92] Potential Pareto efficiency, and cost-benefit analysis, are criticized by critical legal studies scholars as being indeterminate for two main reasons. First, wealth effects result in preferences that vary depending on the distributive effects of the legal rule at issue, rendering preference-based policy-making circular. Second, the value of regulation to individuals varies depending on whether they are asked to pay to avoid a harm or asked how much they would accept to incur a harm: the offer and asking price disparity. See, e.g., M. Kelman, *A Guide to Critical Legal Studies* (1987), at 142–150. On the willingness to pay versus willingness to accept pricing problem, see, e.g., Hoffman and Spitzer, 'Willingness to Pay vs. Willingness to Accept: Legal and Economic Implications', 71 *Wash. U. L.Q.* (1993) 59.

[93] For an analytical survey of the normative critiques, see Baron and Dunoff, 'Against Market Rationality: Moral Critiques of Economic Analysis in Legal Theory', 17 *Card. L. Rev.* (1996) 431.

Kelman critiques cost-benefit analysis as a moral philosophy, arguing that as a moral philosophy it is circular: it relies on moral positions for its inputs.[94] However, 'moral philosophy' seems too high a standard by which to measure cost-benefit analysis. Rather, it is better considered a tool of liberal moral relativism for those with disparate moral philosophies who wish to live together.[95] Cost-benefit analysis is thus consistent with the tradition of liberal individualism exemplified by Hobbes, Locke, Rawls, Nozick and Buchanan.[96]

Most of us seem to engage in this type of cost-benefit analysis in our individual decisions, trading off one moral principle against another, or morality against the achievement of other goals. Where we might otherwise consider a moral tenet to be a side constraint, a more parsimonious theory, with greater explanatory power, might consider it a preference.[97]

The evaluation of costs and benefits of collective decisions is a political act, but it is also probably a useful analytical step in understanding the consequences of the proposed decision. What role does monetization serve? Different endowments and different preferences make it impossible in the real world to use money to engage in interpersonal comparison of utilities. However, in a zero transaction costs world, one in which potential Pareto efficiency is the same as ordinary Pareto efficiency, an infinite series of costless transactions would result in each of us maximizing our own utilities, and the prices at which these transactions took place (if they used money) would be good indicators of our utilities. This is why the fundamental theorem of welfare economics chooses market transactions as the best engine of welfare: the zero-transaction cost market results in perfect revelation of utility. Thus, there may be low transaction cost circumstances, perhaps where there are highly liquid markets, in which market valuation in money terms is a (relatively) good indicator of utility. Furthermore, to be selected as a tool of analysis, monetary evaluation need not be a perfect indicator of utility or method of arraying information. It need only be a better indicator than the alternatives. And so, we turn to comparative institutional analysis: What structure allows us to make social decisions that best reflect our collective individual preferences?

Conventional cost-benefit analysis seeks to reduce all costs and benefits to monetary terms, so that they will be comparable mathematically. It does so using a 'willingness

[94] Kelman, 'Cost-Benefit Analysis — An Ethical Critique', *Regulation* (January 1981) 33, at 34–35. See also Hubin, 'The Moral Justification of Benefit/Cost Analysis', 10 *Econ. & Phil.* (1994) 169.

[95] See Cooter, 'The Best Right Laws: Value Foundations of the Economic Analysis of Law', 64 *Notre Dame L. Rev.* (1989) 817 (arguing that cost-benefit analysis is a methodology for moderating among varying conceptions of the right). Cost-benefit analysis may be said to be based on the moral outlook that individuals' preferences are worthy of recognition, and indeed are the exclusive basis for decision-making, in the sense that cost-benefit analysis views costs and benefits in terms of individual preferences. See Hovenkamp, 'The Limits of Preference-Based Legal Policy', 89 *Northw. U. L. Rev.* (1994) 4.

[96] *Ibid.* at 180.

[97] See I.L. Janis and L. Mann, *Decision Making: A Psychological Analysis of Conflict, Choice, and Commitment* (1977), ch. 6. But see Milgrom, 'Is Sympathy an Economic Value? Philosophy, Economics, and the Contingent Valuation Method', in J.A. Hausman (ed.), *Contingent Valuation: A Critical Assessment* (1993).

to pay' criterion for benefits.[98] For example, it is thought possible to deduce the willingness of individuals to pay for cleaner air by analysing the price differentials for housing in locations with high air quality versus locations with low air quality.[99] Cost-benefit analysis in the context discussed here necessarily involves the comparison of differently denominated values, such as free trade versus environmental protection.[100] None of these values, including the market-type ones of free trade and competition, are easily monetized.[101] However, this only means that they cannot easily be compared in formal mathematical terms along a single dimension; it does not mean that they cannot be compared at all: apples are red, while oranges are orange, oranges contain more acid, both are somewhat spherical but with different distinctive shapes, etc. Each of these qualities may be quantified, but their quantification cannot be combined, except arbitrarily. Perhaps the integration of multiple policies, and less formal analysis that compares without mathematics, is the domain of law and politics rather than of mathematical economics. If it is, law still has much to learn from economics.

Moreover, the act of choice is an act of either explicit or implicit commensuration. That is, our trade-off decisions may be analysed as circumstances of revelation of preferences, and may be combined with the trade-off decisions of others to provide information about relative 'prices'. This does not mean, however, that it is incumbent on *courts or legislatures* to commensurate in particular circumstances: whether they should do so is a separate question. It is a question of comparative institutional analysis. Nor does it mean that we must monetize: it may not assist clarity of analysis to do so. However, in any decision-making context, the decision-maker must commensurate. Kelman responds to this argument only by pointing out the difficulties and subjective nature of monetization.[102] By doing so, he seems to accept the point that commensuration is necessary, but objects to the methodologies used. Monetization, if it is useful, simply facilitates comparison and the delegation of comparison responsibilities, by allowing the principal to direct the agent in discrete numerical terms. If it makes choice easier and better, it should be used. Monetization in this sense may itself be subjected to cost-benefit analysis.

The application of the potential Pareto superiority criterion requires some metric of comparison to make sense of the requirement of full compensation, but neither that criterion nor the commitment to subjective criteria for the evaluation of personal welfare entail selecting money (or wealth) as the metric. Money is an appealing metric

[98] See Diamond and Hausman, 'On Contingent Valuation Measurement of Nonuse Values', in Hausman, *supra* note 97 (exploring the distinction between willingness to pay and willingness to accept). See also Hoffman and Spitzer, *supra* note 92.

[99] Hahn and Hird, 'The Costs and Benefits of Regulation: Review and Synthesis', 8 *Yale J. Reg.* (1990) 233, at 242.

[100] See, e.g., Tushnet, *supra* note 41, at 144–145; Baron and Dunoff, *supra* note 93.

[101] See Sunstein, 'Incommensurability and Valuation in Law', 92 *Mich. L. Rev.* (1994) 779.

[102] Kelman, *supra* note 94, at 40. In fact, Kelman's analysis itself has much in common with cost-benefit analysis. He argues that cost-benefit analysis is not justifiable because of the difficulties of monetization and the potential error costs it engenders.

(or unit of account) for economists because it is the medium of exchange and is therefore the convenient denominator for comparing interpersonal exchange values of events or options.[103]

It is impossible to directly translate the values of local regulatory autonomy into monetary terms. Indirect market methods,[104] contingent valuation methods[105] and the development of a liquid market for barter of regulatory jurisdiction[106] may provide rough guides to conversion. Where there is no monetized market that may reveal valuation of particular regulatory or trade measures, the only available test of the Pareto efficiency or potential Pareto efficiency of a particular outcome is whether it is accepted by the parties involved.[107] On the other hand, when we translate dissimilar values into monetary amounts and seek to commensurate on that basis, we also engage in interpersonal comparison of utility, by virtue of the assumption that a dollar is worth as much to one person as to another.[108]

F *Theoretical Concerns: Avoidance of Interpersonal Comparison of Utility*

Even if it were possible to monetize all values, interpersonal comparison of utility, using money as a reference or not, would still raise difficult theoretical problems. Despite its widespread use in law and economics, the concept of potential Pareto efficiency is criticized by some economists because it entails the theoretical problem of interpersonal comparison of utilities.[109] In our context, it does so by juxtaposing the costs (and benefits) incurred by state A with those incurred by state B, and purporting to compare them. This requires not only that the costs be measured in comparable terms (here money), but also that a monetary unit be a valid reflection of utility for each individual involved.

Finally, it would seem useful to imagine the problem of comparative cost-benefit analysis as a problem of institutions. When an individual engages in decision-making, she may commensurate between her own values on a relatively consistent and

[103] Keating, *supra* note 89, at 311, note 83, citing Alchian, 'Cost', in D.L. Sills (ed.), *International Encyclopedia of the Social Sciences* vol. 3 (1968) 404, at 405.

[104] Indirect market methods 'exploit the relationships between environmental quality and various marketed goods.' Cropper and Oates, *supra* note 42, at 677.

[105] Contingent valuation involves direct survey questioning regarding valuation of environment. See, e.g., Hannemann, 'Valuing the Environment through Contingent Valuation', 8 *J. Econ. Persp.* (1994) 19; Note, '"Ask a Silly Question . . .": Contingent Valuation of Natural Resource Damages', 105 *Harv. L. Rev.* (1992) 1981; R.C. Mitchell and R.T. Carson, *Using Surveys to Value Public Goods: The Contingent Valuation Method* (1989) 65; J.A. Hausman (ed.), *Contingent Valuation: A Critical Assessment* (1993).

[106] This might be something like a system of tradeable pollution permits. See Cropper and Oates, *supra* note 42, at 682–692. The US has recently proposed use of tradeable pollution permits in the international context. See Boulton, 'For Sale: A License to Pollute', *Financial Times*, 6 May 1996, at 17.

[107] See Frey and Gygi, 'International Organizations from the Constitutional Point of View', in R. Vaubel and T.D. Willett (eds.), *The Political Economy of International Organizations* (1991), at 64. See also Brennan and Buchanan, *supra* note 91.

[108] Hovenkamp, *supra* note 95, at 15.

[109] See, e.g., J. Elster and J.E. Roemer (eds.), *Interpersonal Comparisons of Well-Being* (1991).

rational basis, and engages only in *intra*personal comparison of utility. When and to the extent that she enters society and shares decision-making authority, she agrees to structures that will allow her input into the relevant social unit's decisions, presumably reflecting her values to a satisfactory extent. While Arrow showed that preferences cannot be aggregated in this sense, again,[110] people seem to form institutions to do so. They can mandate those institutions to make decisions based on a *gestalt* or on 'deliberative judgment', or they can mandate those institutions to monetize. Either way, the institutions will commensurate; either way they will engage in interpersonal comparison of utility. The choice of method will depend on an evaluation of which method provides the best decisions at the lowest cost.

3 Comparison of Actual Trade-off Devices

We continue our evaluation of comparative cost-benefit analysis by examining the alternatives extant in the same terms by which we evaluated comparative cost-benefit analysis, albeit more briefly. The alternative trade-off devices examined here are in use, to varying extents, in varying combinations and with varying effect, in the three jurisdictions considered. Table A summarizes, in gross, the use of these trade-off devices in the EU, GATT/WTO and US. A more detailed analysis would reveal great diversity within each category.

Table A: Trade-off Devices in EU, GATT/WTO and US Law

	EU	*GATT/WTO*	*US*
Textual sources	Arts. 30 and 36	Arts. III, XI and XX	Commerce Clause
National treatment	required	required	required
Simple means-ends rationality testing	required	only required under XX after finding of violation of III or XI; included in 'like products' analysis under III	required
Necessity testing	required	only required under certain provisions of XX after finding of violation of III or XI	required after a finding of *de jure* discrimination or 'discriminatory effect' – rarely satisfied
Proportionality	required	not required	required, but liberal
Balancing/cost-benefit analysis	perhaps required	not required	perhaps required, but liberal

[110] See, e.g., K.J. Arrow, *Social Choice and Individual Value* (1963). For a criticism of this perspective, see Hovenkamp, 'Arrow's Theorem: Ordinalism and Republican Government', 75 *Iowa L. Rev.* (1990) 949.

None of EU, GATT/WTO or US law explicitly prescribes any of the above tests, with the exception of national treatment.[111] All of the tests analysed below have been judicially[112] cultivated on relatively stark textual bases, at least at first. They have met with political acquiescence and in some cases political approval, but have suffered attacks alleging illegitimacy on varying grounds, including the lack of a textual basis.[113]

Thus, even if legislatures or framers of constitutions and treaties did not intend to mandate these trade-off analyses, judges invented them. They did so not necessarily to increase their bureaucratic power, but in order to fill a gap that required filling in order to decide cases — the gap in clarity of allocation of competences between the centre and the periphery. Only in a limited number of areas are *all* local impediments to free trade invalidated; and only in a limited number of areas are local actions *invulnerable* to central judicial review. In these clear areas, allocation of authority along the vertical axis requires little judicial analysis, but only categorization. However, in other areas, notably the field where the majority of problems involving local initiatives that impede free trade are located, these initiatives are neither always prohibited nor always permitted. The devices described below are judicially-created to discriminate between those to be prohibited and those to be permitted.

Of course, saying that these devices lack strong textual foundation and are judicially-created is not to say that the language of the texts on which they are based is unimportant. However, it is fair to say that these texts serve only as a starting point of analysis. In the case of the US Constitution and the Treaty of Rome, it was recognized by the relevant judicial bodies that in order to create a common market, local laws would need to be disciplined. In the US, federal legislation was from an early point available to discipline local laws, but the pre-emption doctrine significantly enhanced protection from localism:

[111] It is worth noting, however, that the Uruguay Round agreements, including GATT 1994, the General Agreement on Trade and Services, the Standards Agreement, and the Sanitary and Phytosanitary Agreement (S&P Agreement), specifically include language that is designed to incorporate the prior GATT jurisprudence of 'necessity'. The Dunkel Draft of the Standards Agreement would have gone further in suggesting proportionality review, as it contained the following footnote after section 2.2: 'This provision is intended to ensure proportionality between regulations and the risks non-fulfillment of legitimate objectives would create.' T.P. Stewart (ed.), *The GATT Uruguay Round: A Negotiating History (1986–1992)*, vol. 3 (1993), at 527. Of course, the meaning of this proposed footnote, as well as of its exclusion, is open to interpretation. In referring to proportionality, it could be referring to proportionality testing, to a wider conception of proportionality or to necessity testing. By deleting this footnote in the final text, the parties may have taken the view that it was unnecessary to accomplish what they wanted, or they may have decided that they meant none of these things. Barcelo suggests that the inclusion of the footnote would have authorized cost-benefit analysis. Barcelo, *supra* note 3, at note 88, citing Petersmann, 'International Competition Rules for the GATT-MTO World Trade and Legal System', 27 *J. World Trade* (1993) 35, at 45. Barcelo further takes the view that the parties intended to avoid a move to balancing or cost-benefit analysis. *Ibid*, citing a telephone conversation with a representative of the Office of the United States Trade Representative confirming this interpretation. While this may well have been the US view of the intent, it is open to a WTO panel to find a different interpretation.

[112] This term refers to the ECJ and the US Supreme Court, as well as to GATT dispute resolution panels.

[113] See Farber and Hudec, *supra* note 3, at 1408–1409, and sources cited therein.

> I do not think the United States would come to an end if we lost our power to declare an Act of Congress void. I do think the Union would be imperiled if we could not make that declaration as to the laws of the several States. For one in my place sees how often a local policy prevails with those who are not trained to national views and how often action is taken that embodies what the Commerce Clause was to end.[114]

In the European Union, central legislation by majority vote was not and is not always possible, putting more pressure on judicial supervision of local law.[115] The ECJ 'did not receive the power to declare the law of a Member State void . . . but went as far as it could to reach the same practical outcome . . . .'[116] Nor did the WTO receive the power to declare the law of a Member State void, or even perhaps to require a Member State to change its law. But it does have the power to declare a Member State law in violation of WTO law.

A *National Treatment Rules*

1 National Treatment Defined

All three jurisdictions studied here forbid discrimination that violates national treatment. A number of scholars and some judges argue that national treatment is the only trade-off rule needed or desirable.[117] The national treatment requirement seems to be a *sine qua non* of integration, and perhaps represents the fundamental economic hallmark of political integration: treat foreigners (or their goods) at least as well as you treat locals (or their goods). It might be argued that while national treatment rules seem to be motivated more strongly by political considerations,[118] and while proportionality testing and simple means-ends rationality testing are ways of identifying *de facto* discrimination, balancing and cost-benefit analysis have more explicitly economic motivations. But national treatment is inherently unstable, and with time and pressure seems to metamorphose into more rigorous tests, including simple means-ends rationality testing, proportionality testing, necessity testing and balancing or cost-benefit analysis. Furthermore, national treatment is insufficient to resolve the problems of multiple regulation, regulation that fails to take account of legitimate diversity and regulation that is eccentric and thus inappropriately different

[114] O.W. Holmes, *Collected Legal Papers* (1920), at 295–296.

[115] See Weiler, *supra* note 85. See also Case 804/79, *Commission v. United Kingdom (Fisheries)*, [1981] ECR 1045 (a Member State could not take measures on its own in an area committed to EU jurisdiction, even though EU legislation had not been effected).

[116] Lenaerts, *supra* note 83, at 256.

[117] See, e.g., *CTS Corp. v. Dynamics Corp.*, 481 US (1987) 69, at 95–96 (Scalia, J., concurring); Regan, *supra* note 31, at 1165; Marenco, 'Pour une interprétation traditionnelle de la notion de mesure d'effet equivalent á une restriction quantitative', *Cah. Dr. Eur.* (1984), at 291–364; Marenco and Banks, 'Intellectual Property and the Community Rules on Free Movement: Discrimination Unearthed', 15 *Eur. L. Rev.* (1990) 224, at 238–241.

[118] The central rationale for the rule against discrimination is to prohibit state or municipal laws whose object is local economic protectionism, laws that would excite those jealousies and retaliatory measures the Constitution was designed to prevent. *C&A Carbone, Inc. v. Town of Clarkstown*, 511 US 383, 114 S.Ct. (1994) 1677, 1682 (citations omitted); see also *South Carolina State Highway Department v. Barnwell Bros. Inc.*, 303 US (1938) 177, 185 note 2.

from other states' regulation. We cannot accept the proposition that national treatment is sufficient without assessing the costs of leaving these problems unaddressed.[119]

(a) European Union

Article 7 of the Treaty of Rome prohibits discrimination on grounds of nationality, including discrimination against goods of foreign origin. However, discrimination on the basis of national origin is also sufficient to establish a violation of Article 30 of the Treaty of Rome, which, being more specifically related to goods, would cover a cause of action relating to denial of national treatment more specifically.

Discrimination is sufficient, but not necessary, for Article 30 scrutiny (except, after *Keck*, with respect to regulation of marketing arrangements). In addition, arbitrary discrimination would render unavailable any exception under Article 36,[120] or under the 'rule of reason', as would a finding that *de jure* non-discriminatory measures constituted a 'disguised restriction on trade'.

Under EU law, it is recognized that '[t]he different treatment of non-comparable situations does not lead automatically to the conclusion that there is discrimination. Material discrimination would consist in treatment of either similar situations differently or different situations identically.'[121] Thus, the principle of non-discrimination is not easily applied in cases in which either the discrimination is not *de jure* or the *de jure* discrimination has a justification. As explained in more detail below in the context of the 'like products' concept under GATT/WTO law, this review of the rationality of the regulatory categories in order to find discrimination involves the ECJ in an intrusive review of national regulatory categories.[122]

(b) GATT/WTO

GATT contains in Article III a rule of national treatment. National regulatory measures that are subject to, but do not violate, Article III are thought to be protected from the otherwise applicable prohibition under Article XI (prohibiting quantitative restrictions, including regulatory provisions that exclude the sale of the relevant goods).[123] Thus, importantly, under GATT itself, *non-discriminatory domestic measures need not comply with the requirements for an exception under Article XX*. This is an important distinction from Article 30 of the Treaty of Rome, which applies even to

[119] See *supra* note 71.

[120] In Case 53/80, *Commission v. French Republic*, [1981] ECR 409, the ECJ found that a restriction on advertising alcoholic beverages could not be justified under Article 36 where it contained significant exceptions that operated in favour of French-manufactured beverages.

[121] Case 13/63, *Italian Republic v. Commission*, [1963] ECR 165, at 176–177, [1963] CMLR 289. See also Case 106/83, *Sermide SpA v. Cassa Conguaglio Zucchero et al.*, [1984] ECR 4209.

[122] For an example of validation of local law through 'creative' use of regulatory categories, see the well-known *Walloon Waste* case, Case C–2/90, [1993] 1 CMLR 365, [1992] ECR I-4431 (Court finds that distinction between local waste and foreign waste is not discrimination, in part due to the policy of 'proximity': treating waste near its origin).

[123] See Barcelo, *supra* note 3, at 759–760 (listing and explaining panel decisions supporting this proposition).

measures that are indistinctly applicable. This protection against Article XI scrutiny, and the need for Article XX justification, is removed under the Standards Agreement, pursuant to which even non-discriminatory measures must, *inter alia*, not create 'unnecessary obstacles to international trade'.[124]

Under the *chapeau* provisions of Article XX, however, no exception is available for discriminatory measures that are applied in a manner which constitutes arbitrary or unjustifiable discrimination or which is a disguised restriction on international trade. For example, in its recent reformulated gasoline decision, the Standing Appellate Body found that in addition to constituting a violation of Article III, US discrimination was also 'unjustifiable' and a 'disguised restriction', thereby rendering unavailable the exception under Article XX(g).[125] Under the Standing Appellate Body's analysis, contradicting that of the original panel, the US Clean Air Act regulations at issue would otherwise have fallen within the terms of Article XX(g), relating to the 'conservation of exhaustible natural resources'.[126]

Where the discrimination is not *de jure*,[127] but is hidden, disguised, indirect or incidental, a more difficult analysis is required. However, the standard applied by recent GATT panels is to require treatment consistent with 'effective equality of opportunities for imported products in respect of the application of laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use of products'.[128]

In order to find either *de jure* or *de facto* discrimination, it is necessary to determine that the foreign products and the relevant domestic products are 'like products' within GATT.[129] Furthermore, the recent GATT Tuna decisions[130] have held that Article III applies to discrimination with respect to products as such, but does not apply to regulatory categories that are not determined by reference to the product as such: i.e. regulation of production processes. The GATT panels have refused to apply Article III to regulation of production processes because these regulations do not apply to the

[124] Standards Agreement, Art. 2.2.

[125] Report of the Appellate Body, United States — Standards for Reformulated and Conventional Gasoline, WTO Document WT/DS2/AB/R, 29 April 1996, at 28–29.

[126] It is worth noting here that Art. XX(g) does not contain a 'necessity' qualifier, and that the Standing Appellate Body rejected the prior panel report's finding that an exception under Art. XX(g) was unavailable. The Standing Appellate Body criticized the panel report for finding that the very discrimination that violated Art. III also made it impossible for the US measure to be found 'primarily aimed at' the conservation of exhaustible natural resources. Under panel decisions, Art. XX(g) has been interpreted to require that measures be primarily aimed at such conservation. Canada — Measures Affecting Exports of Unprocessed Herring and Salmon, 35 BISD 98, 114, para. 4.6, adopted 22 March 1988; First Tuna Panel Report, *supra* note 21; United States — Restrictions on Imports of Tuna, DS29/R (1994), reprinted in 33 *ILM* (1994) 839 [hereinafter 'Second Tuna Panel Report']; United States — Taxes on Automobiles, DS 31/R (1994).

[127] As in, e.g., the case of United States — Section 337 of the Tariff Act of 1930, 36 BISD (1990) 345, 392, paras. 5.25–5.27 [hereinafter 'Section 337 Panel Report'].

[128] Section 337 Panel Report, at 386, para. 5.11; see also United States Measures Affecting Alcoholic and Malt Beverages, 39 BISD (1992) 279, para. 5.30 [hereinafter 'Wine and Beer Panel Report'].

[129] See Berg, 'An Economic Interpretation of "Like-Product"', 30 *J. World Trade* 195 (1996).

[130] First Tuna Panel Report, *supra* note 21 and Second Tuna Panel Report, *supra* note 126.

product as such, denying otherwise non-discriminatory process regulations the protection from Article XI scrutiny afforded by Article III. Interestingly, there has been a debate regarding the extent of coverage by the Standards Agreement of process standards as 'technical regulations'. The language of the definition of 'technical regulations' includes process standards relating to the product, which appears somewhat ambiguous. The intent of at least some negotiators was to exclude from coverage process standards that are not somehow carried with the product.[131] The exclusion of such process standards from coverage under the Standards Agreement, as well as from protection under Article III as described above, would have the result of relegating them to possible salvation under Article XX, if at all. Interestingly, the S&P Agreement specifically covers sanitary and phytosanitary measures that relate to processes and production methods, so long as they are applied to protect human, animal or plant life *within* the territory of the regulating state.[132]

(c) United States

In US law, several of the tests described here are combined. Under commerce clause analysis, legislation that (i) discriminates *de jure* against out-of-state interests, or (ii) discriminates *de facto* in a way that is explicitly intentional (discriminatory purpose),[133] or (iii) has such a great disparity of effect that it indicates intentional discrimination[134] (described by the Supreme Court as having a 'discriminatory effect') will be subjected to strict scrutiny, which it will rarely survive.[135] This strict scrutiny consists of a requirement that the state implementing the discriminatory measure justify it in necessity test terms.[136] Even if these types of measures satisfy simple means-ends rationality testing, they cannot be sustained 'unless the discrimination is demonstrably justified by a valid factor unrelated to economic protectionism'.[137] This

[131] See Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards, and Processes and Production Methods Unrelated to Product Characteristics, WTO Document WT/CTE/W/10 G/TBT/W/11, 29 August 1995, ¶¶ 146–148.

[132] S&P Agreement, Annex A, para. 1.

[133] The intent is that of the legislators. See Smith, *supra* note 6, at 1241–1243 (citing *Minnesota v. Clover Leaf Creamery Co.*, 449 US (1981) 456, at 463 note 7, 471 note 15; *Hunt v. Washington Apple Advertising Commission*, 432 US (1977) 333, at 352).

[134] See Regan, *supra* note 31.

[135] In Justice O'Connor's words, 'Where, however, a regulation "affirmatively" or "clearly" discriminates against interstate commerce on its face or in practical effect, it violates the Constitution unless the discrimination is demonstrably justified by a valid factor unrelated to protectionism.' *C&A Carbone, Inc. v. Town of Clarkstown*, 114 S.Ct. (1994) 1677, 1688 (O'Connor, J., concurring). In *Maine v. Taylor*, 477 US (1986) 131, the Supreme Court upheld a discriminatory statute, where Maine satisfied its burden of proof that the law prohibiting the import of live baitfish was necessary, in the sense that the legitimate local purpose of protecting local fisheries from disease could not be served by less discriminatory means, such as inspection. Strict scrutiny, in this field, applies a necessity test and almost invariably invalidates the state measure.

[136] See, e.g., *Hunt v. Washington State Apple Advertising Commission* 432 US (1977) 333. See also Farber and Hudec, *supra* note 3, at 1413.

[137] *New Energy Co. of Indiana v. Limbach*, 486 US (1988) 269, at 274; *Philadelphia v. New Jersey*, 437 US (1978) 617, at 627 ('In each of these cases, a presumably legitimate goal was sought to be achieved by the illegitimate means of isolating the State from the national economy.').

proviso seems similar to the position under EU law: 'comparable situations must not be treated differently and different situations must not be treated in the same way unless such treatment is objectively justified'.[138] In fact, however, the Court has applied a 'virtually per se rule of invalidity' to provisions that patently discriminate against interstate trade.[139]

Where it finds neither discriminatory purpose nor 'discriminatory effect', the Court will characterize the burdens on interstate commerce as incidental or indirect, and apply a more relaxed and deferential proportionality test.[140] 'A facially nondiscriminatory regulation supported by a legitimate state interest which incidentally burdens interstate commerce is constitutional unless the burden on interstate trade is clearly excessive in relation to the local benefits.'[141] Note that this differs from the 'discriminatory effect' cases only in the way that the Court characterizes the effect — in these cases, no discriminatory intent is suspected.

The Supreme Court is less concerned about externalization of regulatory costs alone, without economic protectionism, and will often uphold state statutes that may impose disproportionate costs on out-of-state interests but that are not intended to protect local markets.[142] However, where a regulatory goal, such as road safety, is sought to be achieved by diverting commerce from the regulating state — through isolationist techniques — the Court will invalidate the state regulation under the commerce clause.[143] '[E]conomic localism cannot be characterized as a symptom of breakdown in a local democratic process.'[144] This perspective, implicitly discounting the possibility of local consumer interests interceding, is consistent with a standard public choice analysis of international trade politics.[145]

2 Maximization of Net Gains of Trade and Regulation

As noted above, national treatment rules decline to maximize the net gains from trade and regulation, in the sense that they fail to discipline local regulation that is non-discriminatory but that (i) results in multiple regulation, (ii) refuses to accept

[138] Case 106/83, *Sermide SpA v. Cassa Conguaglio Zucchero et al.*, [1984] ECR 4209, at 4231.

[139] *Associated Ind. of Missouri v. Lohman*, 511 US (1994) 641, at 647 (quoting *Philadelphia v. New Jersey*, 437 US (1978) 617, at 624); see also *C&A Carbone, Inc. v. Town of Clarkstown*, 114 S.Ct. (1994) 1677.

[140] *Ibid.* See *Pike v. Bruce Church, Inc.*, 397 US (1970) 137.

[141] *C&A Carbone, Inc. v. Town of Clarkstown*, 511 US (1994) 383, at 402 (O'Connor, J., concurring) (citing *Brown-Forman Distillers Corp. v. New York State Liquor Auth.*, 476 US (1986) 573, at 579; *Pike v. Bruce Church, Inc.*, 397 US (1970) 137, at 142). Note, however, that in dissent, Justice Souter, joined by Blackmun and Rehnquist, argue that at least in the context of processing services, all the laws invalidated under the commerce clause were 'patently discriminatory', except in the case of *Pike v. Bruce Church*. *C&A Carbone, Inc. v. Town of Clarkstown*, 511 US (Souter, J., dissenting) (1994) 383, at 414; see also *Philadelphia v. New Jersey*, 437 US (1978) 617, at 624.

[142] See, e.g., *Mintz v. Baldwin*, 289 US (1933) 346. See also *Maine v. Taylor*, 477 US (1986) 131; *Wyoming v. Oklahoma*, 112 S. Ct. (1992) 789.

[143] *Kassel v. Consolidated Freightways Corp.*, 450 US (1981) 662; *Philadelphia v. New Jersey*, 437 US (1978) 617.

[144] Tribe, *supra* note 80, at 411.

[145] See Tushnet, *supra* note 41, at 132–133.

foreign regulation as 'equivalent' or (iii) simply is more costly in trade terms than it is valuable in regulatory terms.

3 Administrability: Standards versus Rules

National treatment seems like a rule, but is often operated as a standard. While it may seem at face level to be extremely easy to administer, this will often not be the case as the 'like products' issue is a proxy for a judicial examination of the rationality of regulatory categories. Often, national treatment examinations shade into simple means-ends rationality testing, proportionality testing, necessity testing, balancing and cost-benefit analysis. The inability to confine national treatment to a formally realizable rule may eviscerate the argument in favour of national treatment on the ground that it avoids the administration costs of more intrusive tests.

Anti-discrimination rules intersect with simple means-ends rationality testing insofar as the failure of a local rule to pass this testing is often a minimal test for discrimination. Furthermore, as we have seen in the case of the dormant commerce clause, anti-discrimination rules may use failure of proportionality testing as a proxy for, or perhaps evidence of, latent discrimination, where there is no patent discrimination. Thus, both simple means-ends rationality testing and proportionality testing may be used to identify discriminatory intent.[146] However, they are both overly broad and underinclusive as indicators of discrimination: that is, measures may fail these tests without being intentionally discriminatory or may pass these tests when the intent that motivated their passage was to discriminate. In addition, arbitrary discrimination is 'by definition, not the least restrictive way to achieve a legitimate public policy objective'[147] and therefore would violate necessity testing.

While rules of non-discrimination, such as national treatment, are different from proportionality testing, balancing and cost-benefit analysis, they may under certain factual circumstances shade into a similar analysis. They may do so in considering the degree of distortion of competition and in determining the 'likeness' of products. Stated another way, at least under GATT/WTO law, different treatment does not violate requirements of national treatment where (i) it does not affect the conditions of competition for imported products adversely, or (ii) the relevant foreign and domestic products are not 'like' and therefore provide no basis for determining discrimination. Similarly, in connection with discrimination in EU law[148] and under the US commerce clause, we sometimes speak of 'similarly situated' foreign persons or goods.[149] Here again, the determination of what is similarly situated may be outcome-determinative, and depends on the tribunal's degree of deference to the legislative categories under examination.

[146] This is part of the explanation for Regan's ability to argue that when the Court balances, it is in actuality applying what he refers to as the 'anti-protectionism principle'. Regan, *supra* note 31, at 1108–1109.

[147] Sykes, *supra* note 78, at 118. The converse is not true: measures that are not discriminatory may well not be the least trade restrictive alternative.

[148] See text accompanying note 121, *supra*.

[149] See Regan, 'Siamese Essays: (I) CTS Corp. v. Dynamics Corp. of America and Dormant Commerce Clause Doctrine; (II) Extraterritorial State Legislation', 85 *Mich. L. Rev.* (1987) 1865, at 1870.

At least one GATT panel, the Wine and Beer Panel, has recognized the potentially extensive effects of the like products issue.

> The Panel recognized that the treatment of imported and domestic products as like products under Article III may have significant implications for the scope of obligations under the General Agreement and for the regulatory autonomy of contracting parties with respect to their internal tax laws and regulations: once products are designated as like products, a regulatory product differentiation, e.g. for standardization or environmental purposes, becomes inconsistent with Article III even if the regulation is not 'applied ... so as to afford protection to domestic production'.[150]

When a GATT or WTO panel finds that like products are treated differently, it invalidates regulation that may have been premised on the different characteristics of these products found by the panel to be insufficient to make them 'un-like'. The types of difference that will be permitted to constitute the basis for un-likeness constitute the range of permissible legislation. In the reformulated gasoline case,[151] the US argued that the foreign character of Venezuelan and Brazilian manufacturers made them different for regulatory purposes. The WTO panel and Standing Appellate Body rejected this categorization as illegitimate. The US argument was that the regulatory category to which the foreign gasoline belonged was that for which the manufacturer could not accurately establish an individual historical baseline of chemical content.[152] The panel implicitly invalidated this regulatory category, finding that 'chemically-identical imported and domestic gasoline are like products under Article III:4'.[153] Here, the reason the US felt it could not establish an individual baseline accurately was because of the very foreign character of the producers: the difficulty of auditing compliance and enforcing regulation as to foreigners.

The Wine and Beer Panel recognized that the power to supervise regulatory categorization is the power to supervise regulation, and suggested that 'it is imperative that the like product determination in the context of Article III be made in such a way that it not unnecessarily infringe upon the regulatory authority and domestic policy options of contracting parties'.[154] Where WTO dispute resolution panels review and reject domestic regulatory categories, they sit in judgment of the rationality of those categories and of the regulation itself.[155]

[150] Wine and Beer Panel Report, *supra* note 128, at 294, para. 5.72.

[151] United States — Standards for Reformulated and Conventional Gasoline, WT/DS2/R, 29 January 1996 (panel report) [hereinafter 'Reformulated Gasoline Panel Report'], reprinted in 35 *ILM* (1996) 274.

[152] *Ibid.* at 9, para. 3.19.

[153] *Ibid.* at 34, para. 6.9.

[154] *Ibid.*

[155] Similar issues may arise in other settings. See *Minnesota v. Clover Leaf Creamery Co.*, 449 US (1981) 456, where the Court upheld a Minnesota law banning non-returnable plastic milk containers, but not banning non-returnable containers made of other materials. This distinction could have been viewed as de facto discrimination, if the Court had determined to take a less benign view of the legislative categories. On the other hand, in several recent GATT and WTO decisions, under provisions other than Art. III(4) of

This is how anti-discrimination may shade into proportionality (even in cases where there is no showing of discriminatory purpose).[156] In addition, this is how seemingly simple rules relating to discrimination are transmuted to standards forming the basis for Lochnerian judicial intervention. Thus, the purportedly neutral and formally realizable principle of non-discrimination is revealed to be value-laden and complex of administration. And yet, a narrowly construed national treatment rule alone would not provide sufficiently free trade in a zero transaction costs world (it is theoretically possible that in a positive transaction cost world, the inaccuracy of using only national treatment might be acceptable in order to avoid the cost of more precise tests). Definitions of national treatment also shade into stipulations against economic protectionism and externalization.[157] While the impetus to do so is understandable, it should be noted that protectionism and externalization are not self-defining terms,[158] and that their use requires the expansion of national treatment analysis to include a broad array of difficult factors that relate to, or include, simple means-ends rationality testing, necessity testing, proportionality testing, balancing and, ultimately, cost-benefit analysis.

GATT, panels have interpreted the 'like product' concept narrowly. See, e.g., Japan — Tariff on Import of Spruce-Pine-Fir (SPF) Dimension Lumber, 36 BISD (1990) 167; Japan — Taxes on Alcoholic Beverages, 11 July 1996. It is relevant that these interpretations consider 'like products' under different provisions, as it is recognized that the meaning of this term varies depending on the context in which it is used.

[156] In addition, Farber and Hudec have pointed out that Art. III analysis of this type, examining the regulatory justification of the product categories, predetermines the outcome of a normally analytically subsequent Art. XX analysis. That is, if the panel criticizes the regulatory categories to find discrimination by virtue of different treatment of like products, it is virtually impossible to find that the discrimination is supported by regulatory justification under Art. XX. Farber and Hudec, *supra* note 3, at 1424. But see the United States — Standards for Reformulated and Conventional Gasoline, WT/DS2/AB/R, 29 April 1996, reprinted in 35 *ILM* (1996) 603 [hereinafter 'Reformulated Gasoline SAB Report'], in which the Standing Appellate Body seemed to separate these two analyses, allowing that the US regulatory categories, while discriminatory under Art. III, might be exempted under Art. XX(g) if not discriminatory or arbitrary within the meaning of the *chapeau* provisions.

[157] See, e.g., Smith, *supra* note 6, at 1212–1213. Smith argues for a definition of discrimination that is based on either economic protectionism or externalization. These categories are significantly wider than traditional discrimination. See also Farber and Hudec, *supra* note 3, at 1428–1429. Farber and Hudec suggest that the formulation of national treatment specified in the Uruguay Round Services Agreement may solve some of the problems with national treatment as otherwise configured, by considering whether the national measure in question 'modifies conditions of competition' in favour of domestic suppliers. This text also stipulates that it does not cover circumstances where 'inherent competitive disadvantages' result from the foreign character of the relevant services or suppliers. General Agreement on Trade in Services, Art. XVII(1) note 11. What modifies conditions of competition from 'natural' conditions, and what is or is not inherent to foreignness, will be subject to dispute.

[158] See Smith, *supra* note 6, at 1219 ('It is not possible to specify how uneven the distribution of burdens and advantages must be to count as a discrimination').

4 Distributive Concerns

National treatment, by definition, allows externalization, so long as the regulatory standard chosen is not discriminatory. Where it accepts local regulation, national treatment may allow detriments to be conferred on outsiders without compensation. Where the national treatment test is applied centrally, or locally on a reciprocal basis (reciprocal national treatment), broad or constitutional-type compensation may be seen to be made. In fact, none of the trade-off devices considered in this Article address distributive concerns directly. However, one argument in favour of national treatment is that it refers distributive issues to the political process — the federal or EU legislative process or the international treaty process — accepting the advantages of political institutions over judicial institutions as instruments for revelation and exchange of preferences.

5 Moral Concerns

For those who attack cost-benefit analysis on moral grounds, one response is to ask which trade-off device has greater moral legitimacy in a context in which not to decide is to decide. None of the devices in use today seems to occupy a moral ground superior to comparative cost-benefit analysis. While national treatment declines to make the kinds of explicit choices associated with comparative cost-benefit analysis, it chooses, and does so with less regard for all of the concerns at stake. Those who place non-trade values presumptively ahead of trade values might prefer national treatment, as it displays a bias toward the non-trade values. However, the rest of us may seek a less biased instrument. Similarly, it might be argued that national treatment has great moral legitimacy insofar as it simply protects non-discriminatory local regulation from attack. The moral legitimacy of national treatment, in this sense, is derived from the moral legitimacy of the local legislative process. However, in order to assign moral superiority to national treatment, we would have to assign moral superiority to the domestic legislative process as opposed to the central legislative or adjudicative process. There is no convincing argument for such presumptive superiority.

6 Theoretical Concerns: Avoidance of Interpersonal Comparison of Utility

Again, national treatment, if operated as advertised, avoids judicial interpersonal comparisons of utility. The problem is referred to the legislative realm, which may provide a more direct instrument for assertion of utility. Of course, for *de jure* discrimination that has no possible legitimate justification, no such comparisons are necessary. But such discrimination truly represents the 'easy' case, and is declining in use. Where national treatment seeks to address *de facto* discrimination, it often incorporates evaluation of the rationality of regulatory categories, simple means-ends rationality testing, proportionality testing, necessity testing or even balancing. Simple means-ends rationality testing does not seem to involve significant interpersonal comparisons of utility. However, proportionality testing and balancing do, and necessity testing is often applied subject to a 'reasonably available' qualification, in which case it also involves significant interpersonal comparison of utility, albeit avoiding the most difficult evaluation of the domestic regulatory goal per se.

B *Necessity or Least Trade Restrictive Alternative Analysis*

1 Necessity or Least Trade Restrictive Alternative Analysis Defined

(a) European Union

One component of the wider concept of proportionality in EU jurisprudence under Articles 30 and 36 is necessity testing. For example, in the *De Peijper* case, the ECJ found a violation of Article 30 where a Dutch law required that parallel importers of pharmaceutical products obtain documentation from the manufacturer or from the manufacturer's distributor. This requirement had the obvious collateral effect of chilling parallel importation. Even though there was a purported health justification for the requirement, the ECJ refused to allow the Netherlands to rely on the exception in Article 36, because less trade restrictive measures were available to that country. Importantly, the Netherlands could have cooperated with the state of production of the imported pharmaceuticals. Thus, in this and other EU contexts, a necessity test requirement gave rise to a duty of cooperation. We have seen similar duties arise under the necessity test applied pursuant to Article XX of GATT.[159] In some cases the least trade restrictive measure is international regulatory cooperation.

(b) GATT/WTO: Necessity

Recall that the 'necessity' qualifications contained in Article XX(b) and (d) of GATT have been interpreted to require the national measure to be the least trade restrictive alternative *reasonably available.*[160] A fundamental question in connection with the necessity analysis is the scope of the 'measure' under review: Is it the entire regulatory scheme or only the trade restricting component? In the Section 337 GATT dispute resolution report, the panel found that each inconsistency with GATT must be considered, rather than the necessity of the regulatory scheme as a whole.[161] Of course, if the necessity determination were required to be made only as to the regulatory scheme as a whole, it would be a much more deferential test. For example, in the recent panel decision relating to the US Clean Air Act reformulated gasoline regulations, the panel examined only the discriminatory aspect of the regulations as the 'measure' to be justified under Article XX.[162] Thus, the question of the scope of the

[159] See, e.g., the First Tuna Panel Report, *supra* note 21, the Second Tuna Panel Report, *supra* note 126, and the Reformulated Gasoline Panel Report, *supra* note 151.

[160] Section 337 Panel Report, *supra* note 127, at 392, paras. 5.25–5.27 ('It was clear to the Panel that a contracting party cannot justify a measure inconsistent with another GATT provision as "necessary" in terms of Article XX(d) if an alternative measure which it could reasonably be expected to employ and which is not inconsistent with other GATT provisions is available to it'); Thailand — Restrictions on Importation of and Internal Taxes on Cigarettes, 37 BISD (1991) 200, at 223 (citing the Section 337 Panel Report) [hereinafter 'Thai Cigarettes Panel Report']; the Wine and Beer Panel Report, *supra* note 128; First Tuna Panel Report, *supra* note 21, and Second Tuna Panel Report, *supra* note 126.

[161] Section 337 Panel Report, *supra* note 127, at 393, para. 5.27.

[162] Reformulated Gasoline Panel Report, *supra* note 151, at 38, para. 6.22: 'The Panel noted that it was not the necessity of the policy goal that was to be examined, but whether or not it was necessary that imported gasoline be effectively prevented from benefitting from as favourable sales conditions as were

measure to be evaluated introduces a certain degree of outcome-determinative discretion, perhaps similar in its corrosive effect to the like products question raised in national treatment analysis.

A second fundamental question arises from the inclusion of the 'reasonably available' qualification in the necessity test: What is reasonable?[163] If the reasonableness test amounts to a requirement that the least trade restrictive alternative not be so costly as to countervail the benefits of the regulatory measure, then it bears some resemblance to cost-benefit analysis; excluding from its truncated maximizing analysis only the measurement of benefits of the regulatory measure. If, alternatively, it amounts to a comparison that requires that the regulatory costs not be disproportionately great in comparison to the trade benefits, then it is a kind of proportionality testing. In the US reformulated gasoline decision, the WTO dispute settlement panel and Standing Appellate Body declined to accept the US position that auditing of refineries and other enforcement activities could not be effected in Venezuela and Brazil. Thus, 'extraterritorial' enforcement measures (along the lines of the enforcement of the US anti-dumping laws)[164] or, as in the tuna cases, international cooperation, were viewed by these panels as reasonably available alternatives.[165]

The Standards Agreement adds a curious phrase to the necessity test. It provides that 'technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, *taking account of the risks non-fulfillment would create*'.[166] On its face, the italicized language appears non-sequacious: What part of necessity test analysis would consider the risks of non-fulfilment of the regulatory goals? However, if the necessity test is thought of as more of a balancing or cost-benefit analysis,[167] considering the potential costs of regulatory failure as part of its calculus, then this language may make sense. Cost-benefit analysis would ordinarily discount a risk by its

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afforded by an individual baseline tied to the producer of a product.' This position seems consistent with prior GATT panel decisions. See the reports cited in Reformulated Gasoline SAB Report, *supra* note 156, at note 28.

[163] The S&P Agreement specifically (although not unambiguously) adds a reasonableness qualification. See *infra* note 168. These provisions leave some ambiguity in light of Art. 2.2 of the S&P Agreement, which provides a necessity test in respect of the application of sanitary and phytosanitary measures, but lacks a reasonableness qualifier.

[164] Reformulated Gasoline Panel Report, *supra* note 151, at 40–41, paras. 6.26–6.28; Reformulated Gasoline SAB Report, *supra* note 156, at 27. Note the similarity to the decision in *Dean Milk Co. v. City of Madison*, 340 US (1951) 349, where the Court found it reasonable to require that Madison send its inspectors further than five miles outside the city.

[165] But see Dunoff, *supra* note 1, at 1419: 'the Panel's assertion that the United States had not engaged in multilateral efforts to address the tuna/dolphin problem is simply incorrect'.

[166] Standards Agreement, Art. 2.2 (emphasis added). However, see *supra* note 30 for a possible explanation of this language based on the negotiating history.

[167] Indeed, Farber and Hudec argue that both the Standards Agreement and the S&P Agreement 'call for a balancing analysis similar to what one finds in the opinions of U.S. courts in [dormant commerce clause] cases'. Farber and Hudec, *supra* note 3, at 1431. See also Sykes, *supra* note 78, at 78–79.

probability in order to calculate its 'cost'. In addition, if the necessity test under this provision is thought of as proportionality testing, the magnitude and probability of risk becomes relevant. On the other hand, the S&P Agreement contains what appears to be a non-sequacious necessity test subject to a 'reasonable availability' qualification, requiring that sanitary and phytosanitary measures be 'not more trade restrictive than required to achieve their appropriate level of protection, taking into account technical and economic feasibility'.[168] The related footnote indicates that this standard disciplines two of the three components of regulatory cost and benefit. First, it asks whether there is a regulatory alternative that incurs significantly reduced trade costs. Second, it asks whether that regulatory alternative is reasonably available. It declines to discipline the extent to which the measure maintains its ability to meet the appropriate level of protection; that is, it does not require any reductions in protection, no matter how costly in trade terms.[169]

It should be noted here that Article XX in general, and Articles XX(b), (d) and (g) in particular, refer to specific regulatory goals. Thus, a dispute resolution panel applying these provisions must determine whether the regulatory goal sought to be achieved fits within these limited categories. On the other hand, the Standards Agreement refers only to 'legitimate objectives'.[170]

(c) United States

As noted above, where the trade restriction amounts to discrimination, either in purpose or in practical effect,[171] the US Supreme Court has imposed a necessity test subject to a 'reasonably available' qualification. Discriminatory effect seems to be treated the same way as intentional discrimination. Finding that a municipality's regulation discriminated against interstate commerce, the Court held that it could not do so, 'even in the exercise of its unquestioned power to protect the health and safety of its people, if reasonable alternatives, adequate to conserve legitimate local interests, are available'.[172] Another formulation of necessity testing, with the same results,

[168] S&P Agreement, Art. 5.6. Footnote 3 thereto states as follows: 'For purposes of paragraph 6 of Article 5, a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade.' This is necessity testing subject to a 'reasonably available' qualification. See also Art. 2.2: 'Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health ....'

[169] However, Art. 5.4 of the S&P Agreement exhorts WTO Members, 'when determining the appropriate level of sanitary or phytosanitary protection, [to] take into account the objective of minimizing negative trade effects'.

[170] Standards Agreement, Art. 2.2.

[171] *Bacchus Imports, Ltd. v. Dias*, 468 US (1984) 263, at 270; *Hunt v. Washington State Apple Advertising Commission*, 432 US (1979) 333, at 350.

[172] *Dean Milk Co. v. City of Madison*, 340 US (1951) 349, at 354; 'Discrimination against interstate commerce in favor of local business or investment is per se invalid, save in a narrow class of cases in which the municipality can demonstrate, under rigorous scrutiny, that it has no other means to advance a legitimate local interest', *C&A Carbone, Inc. v. Town of Clarkstown*, 511 US (1994) 383 (citing *Maine v. Taylor*, 477 US (1986) 131); *Philadelphia v. New Jersey*, 437 US (1978) 617.

requires that discrimination be 'demonstrably justified by a valid factor unrelated to economic protectionism'.[173] It is interesting that the Court uses necessity testing as strict scrutiny, once discrimination is demonstrated. This limited application of necessity testing, combined with the Court's limited use of balancing, indicates a central role for national treatment in the US, the jurisdiction in our comparison that has the greatest legislative capacity.

2 Maximization of Net Gains of Trade and Regulation

As a tool to maximize net gains of trade and regulation, necessity testing is overbroad and underinclusive. First, it seems to elevate trade values to a pre-eminent status,[174] by insisting that any non-trade measure be designed to meet its goal using the means that is least trade restrictive, no matter what the domestic regulatory cost. Least trade restrictive alternative analysis, when subject to the 'reasonably available' qualification, seems to address this problem by placing an indeterminate cap on the domestic regulatory cost. Second, there may be circumstances where even the least trade restrictive alternative is not worthwhile — where the non-trade measure is worth far less than the trade costs it imposes. Necessity testing engages in truncated maximization, or truncated comparative cost-benefit analysis, by keeping the regulatory benefit relatively constant and working on the trade detriment side. It thus evaluates a much more limited range of options, ignoring other groups of options that may be superior.

In the leading US case of *Pike v. Bruce Church*, after prescribing a balancing or proportionality test that would consider whether the burden on interstate commerce 'is clearly excessive in relation to the putative local benefits', Justice Stewart stated that 'the extent of the burden that will be tolerated will of course depend on . . . *whether [the local interest] could be promoted as well with a lesser impact on interstate activities*'.[175] Justice Stewart thus added to the balancing test a search for less trade restrictive alternatives.[176] This combination, and necessity testing generally, amounts to a start in the transition from static to comparative cost-benefit analysis, while limiting the universe of comparison to measures that reduce the trade restriction costs without modifying the regulatory benefit. It only amounts to a start, as Stewart did not add a search for an alternative that would provide more regulatory benefits at a fixed trade cost, or at a trade cost that would be less than the increased regulatory benefits. Nor did he add a search for an alternative that would provide less regulatory benefits, but diminish trade detriments by an amount greater than the reduced regulatory benefits.

Perhaps it is worth noting here the categorical nature of necessity testing, and its relatively modest use in the US, where federal legislation has historically been easier to

[173] *Fort Gratiot Sanitary Landfill*, 504 US (1992) 353, at 359 (quoting *New Energy Co. of Indiana v. Limbach*, 486 US (1988) 269, at 274).

[174] Dunoff, *supra* note 1, at 1449–1450.

[175] 397 US (1970) 137 (emphasis added).

[176] See also Henkin, *supra* note 76, at 1040: 'The principle of balancing implies a sub-principle that the state use the means of meeting its needs which is least burdensome to interstate commerce.' *Ibid*, citing *Dean Milk Co. v. City of Madison*, 340 US (1951) 349.

enact than perhaps EU legislation or amendments to GATT. Where local regulation can more readily be invalidated legislatively by legislative pre-emption, there is less need for a judicially-created and policed doctrine of necessity testing. National public policy goals can be achieved without judicial intervention. This categorical nature gives rise to the overbreadth and underinclusiveness referenced above.

Of course, the definition of the regulatory goal is critical to these tests. The more precisely defined the regulatory goal, and the more it refers both to maximizing regulatory benefits and minimizing regulatory costs, the more difficult it will be to find a less trade restrictive alternative that will achieve the same complex goal. However, implicit in necessity testing as applied is exclusion of consideration of domestic regulatory costs. This exclusion provides an incomplete picture of costs, giving weight to trade costs, but ignoring regulatory costs. This distortion may be reduced in the case of necessity testing subject to a 'reasonably available' qualification, by the implicit inclusion of regulatory costs in the consideration of what alternatives are indeed reasonably available.

Finally, necessity testing shades into recognition. That is, where the home country regulation is adequate to achieve the host country's regulatory goal, recognition is the least trade restrictive alternative. This relationship has been recognized since the *Cassis de Dijon* case.[177]

3 Administrability: Standards versus Rules

Necessity testing raises significant administrative problems, but these problems are simply a subset of those raised by comparative cost-benefit analysis. This is because necessity testing is itself a subset of comparative cost-benefit analysis, as noted above. In order to engage in necessity test evaluation, it is necessary to calculate trade restriction effects for each of the regulatory measures evaluated.

4 Distributive Concerns

Necessity testing does not provide for any direct compensation to outsiders in cases where local legislation is upheld, nor does it provide direct compensation to locals where legislation is invalidated. On the other hand, it (i) minimizes the trade cost on outsiders (while accepting regulatory goals) and thus minimizes the distributive concern with respect to outsiders, and (ii) takes advantage of the same type of broad or indirect reciprocity that each trade-off device studied in this article entails.

5 Moral Concerns

Necessity testing seems subject to some of the same moral critiques as comparative cost-benefit analysis, but avoids evaluation of the relative value of regulatory goals and thus evades the strongest moral critique.

6 Theoretical Concerns: Avoidance of Interpersonal Comparison of Utility

By providing a truncated analysis that does not evaluate local regulatory goals, necessity testing seems to limit interpersonal comparison of utilities. While its

[177] Case 120/78, *Cassis de Dijon*, [1979] ECR 649.

assessment of trade restriction involves some interpersonal comparison of utilities, it does so only within the utilities of the complaining state. It does not consider the utilities of the allegedly offending state. Finally, its comparison of trade restriction involves calculations that are frequently required in trade relations, and thus perhaps are more susceptible to economic analysis.

C *Proportionality*

1 Proportionality Defined

Narrow proportionality may be viewed as a special type of balancing or cost-benefit analysis. It is different from a full balancing or cost-benefit analysis, insofar as it generally provides a margin of deference to the local regulation, asking whether it is disproportionate, or excessive in its costs considering its benefits, as opposed to whether its detriments simply outweigh its benefits. Second, it is different as it does not purport to weigh specific factors or to engage in cost-benefit analysis. Rather, like balancing, it involves more of a *gestalt*. On the other hand, the definition and method of application of each test is critical. For example, Sunstein has defined proportionality as requiring that aggregate social benefits are proportionate to the aggregate social costs.[178] This definition merges the analytical tasks of proportionality and cost-benefit analysis, while providing a somewhat different mathematical formulation: proportionate costs and benefits instead of benefits in excess of costs.

(a) European Union

Proportionality is a general principle of EU law,[179] and was incorporated in the Treaty of Rome by the Maastricht Treaty. The *locus classicus* of the principle of proportionality in EU law is the *Internationale Handelsgesellschaft* case, which articulated proportionality as follows: 'the individual should not have his freedom of action limited beyond the degree necessary for the general interest'.[180] The affinity between this formulation of proportionality and the formulation of subsidiarity in Catholic social doctrine is apparent.[181] Proportionality was critical to the decision in the well-known Danish bottles case, where the ECJ found the trade detriments arising from one component of the Danish regulatory scheme disproportionately large in relation to the regulatory benefits.[182]

[178] C.R. Sunstein, *After the Rights Revolution: Reconceiving the Regulatory State* (1990), at 181.

[179] Emiliou, *supra* note 5, at 322–323, citing Case 11/70, *Internationale Handelsgesellschaft GmbH v. Einfuhr-und Vorratsstelle fur Getreide und Futtermittel*, [1970] ECR 1125, at 1127, [1972] 10 CMLR 255 (the principle of proportionality is 'an integral part of international law and of supra-national law, such that a Community statute contrary to these concepts should be considered void').

[180] Case 11/70, *Internationale Handelsgesellschaft GmbH v. Einfuhr-und Vorratsstelle fur Getreide und Futtermittel*, [1970] ECR 1125, at 1146, [1972] 10 CMLR 255, 256. In our context, we have an interesting question as to what entity stands in the role of the individual. In this international context, does the principle of proportionality continue to protect the individual against the state, or should it protect the state against the international system?

[181] See Komonchak, 'Subsidiarity in the Church: The State of the Question', 48 *The Jurist* (1988) 298, 299 (quoting Pius XI, *Quadregisimo Anno* 79 (1931)).

[182] Case 302/86, *Commission v. Denmark*, [1988] ECR 4607, at 4632, [1989] 1 CMLR 619, at 632.

The doctrine of proportionality as elaborated at Maastricht builds upon this jurisprudence. Article 3b, the provision of the Treaty of Rome added at Maastricht to incorporate the principle of subsidiarity, also states the principle of proportionality: 'Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty.'[183] This has been articulated further by the European Council: 'Any burdens, whether financial or administrative, falling upon the Community, national governments, local authorities, economic operators and citizens, should be minimized and should be proportionate to the objective to be achieved.'[184] Of course, these two statements simply incorporate different weasel words — 'necessary' and 'proportionate' — without defining precisely how compliance with these requirements is to be determined. More importantly, this principle is intended to discipline central action; the principle of proportionality that interests us disciplines local action.

(b) GATT/WTO

GATT/WTO jurisprudence has not explicitly embraced proportionality testing, except to the extent, as discussed below, that necessity testing may be viewed as shading into proportionality testing.

(c) United States

In cases of differential treatment that the US courts do not characterize as having 'discriminatory effect'—where there is no sense of intentional discrimination, but only incidental or indirect burdens on interstate commerce — the local legislation is upheld unless the burden on interstate commerce is clearly excessive in relation to the local regulatory benefits.[185] Proportionality testing is thus reserved for cases of non-discrimination, and generally has the result of validating the local measure.

2 Maximization of Net Gains of Trade and Regulation

The Supreme Court has combined proportionality testing with necessity testing,[186] but these two forms of tests have a complex relationship. Where the difference between the measure under review and another available measure that is less trade restrictive is great in terms of the amount of trade restriction, it might be argued that proportionality testing as formulated above would have the same invalidating result as necessity testing. This is because the burden on interstate commerce could be characterized as 'clearly excessive in relation to the putative local benefits' by reference to the less restrictive alternative. This is a kind of implicitly comparative proportionality testing, with the same relationship to non-comparative proportionality testing as that between cost-benefit analysis and comparative cost-benefit analysis.

[183] Treaty of Rome, Art. 3b (as amended in 1992).

[184] European Council in Edinburgh, Conclusions of the Presidency, 12–13 December 1992, Annex 1 to Part A, at 8 (summarizing results of the Edinburgh Summit).

[185] E.g., *Minnesota v. Clover Leaf Creamery Co.*, 449 US (1981) 456. See also *supra* note 141.

[186] *Ibid.* at 473.

Comparative proportionality testing includes necessity testing, with a margin. Due to this margin, it is possible that a measure would fail necessity testing, but not be clearly excessive under proportionality testing, if it were only marginally more trade restrictive than another alternative. It is also possible that a measure that is not the least trade restrictive alternative would satisfy a non-comparative proportionality test.

Proportionality may be viewed as a truncated cost-benefit analysis (but not necessarily comparative cost-benefit analysis) test. Proportionality testing does all the same work as cost-benefit analysis, but provides greater deference to local regulation. In this sense, it is by design less capable of maximization of gains from trade and regulation. Or perhaps one might argue that given the margin for error involved with cost-benefit analysis, proportionality testing's presumption in favour of local regulation simply applies this margin for error, taking advantage of the gains from conservatism. Proportionality testing may become more like comparative cost-benefit analysis the more it evaluates various alternatives as part of its determination of whether the particular measure under scrutiny is proportional.

3 Administrability: Standards versus Rules

As it requires the same data as cost-benefit analysis, proportionality testing would seem no more administrable. However, its margin of deference may allow a looser analysis, yielding greater predictability and ease of administration.

4 Distributive Concerns

Proportionality considers the local interests alongside the interests of outsiders, while weighting the analysis in favour of the former. Like the other trade-off devices, proportionality testing does not provide compensation, but may be viewed as incorporating a kind of broad reciprocity, similar to other trade-off devices, wherein the losing party may expect recompense by virtue of the possibility of being the winning party in another similar case.

5 Moral Concerns

Proportionality cannot claim significantly greater moral legitimacy than cost-benefit analysis or comparative cost-benefit analysis, although it accords greater deference to local regulation. This might be viewed by some as commanding greater moral legitimacy than negative central regulation.

6 Theoretical Legitimacy: Avoidance of Interpersonal Comparison of Utility

Proportionality suffers from the same problems of interpersonal comparison of utility as cost-benefit analysis and comparative cost-benefit analysis, although, again, the margin of deference might be viewed by some as reducing this problem.

D *Balancing Tests*

1 Defined

As noted above, balancing and cost-benefit analysis have much in common with one another as well as with proportionality testing: each compares regulatory benefits with trade detriments. The major difference between proportionality testing on the one hand, and balancing and cost-benefit analysis on the other, is that proportionality testing seems to specify a particular margin of deference for local regulation: the trade detriments that the local regulation entails cannot be disproportionately large.[187] This is why, in the EU and the US contexts, terms like proportionality and balancing tests, and even cost-benefit analysis, are often used interchangeably.

(a) European Union

The European Union's jurisprudence relating to free movement of goods does not adopt balancing or cost-benefit analysis per se. While proportionality in the EU sense seems to require some weighing, it is not full balancing or cost-benefit analysis.[188] In the *Stoke-on-Trent (Sunday Trading III)* case, the ECJ stated that '[a]ppraising the proportionality of national rules which pursue a legitimate aim under Community law involves weighing the national interest in attaining that aim against the Community interest in ensuring the free movement of goods'.[189] However, a UK court has expressed the following reservations:

> It is readily assumed that the exercise required by the Cassis De Dijon exception in a case such as the present would involve a kind of cost-benefit analysis. Weights would be attributed to the interests respectively of free movement and the socio-cultural object of the particular measure, and the court would then decide whether the latter outweighed the former. Something of this kind is often involved in the legislative process, where political premises lead to a decision that one desirable aim must be subordinated to another. But to perform this task in a judicial context would in all but the most obvious case be a difficult matter.[190]

(b) GATT/WTO

GATT/WTO jurisprudence has not explicitly embraced balancing or cost-benefit analysis, and has implicitly done so only in a very limited sense, as discussed above, by virtue of the like products analysis. Given the similarity between the language of Article 30 of the Treaty of Rome and the language of Article XI of GATT, and parallels between Article 36 of the Treaty of Rome and Article XX of GATT, it may be worth considering why no proportionality testing, balancing or cost-benefit analysis has

[187] For a US domestic case distinguishing cost-effectiveness in a static cost-benefit analysis sense from a statutory requirement that costs of environmental protection not be 'wholly disproportionate' to benefits, see *Chemical Mfrs. Ass'n v. EPA*, 870 F.2d 177, 205 (5th Cir. 1989), cert. denied, 495 US (1990) 910. See also, Mikkelson, 'Comment: Earning Green for Turning Green: Executive Order 12,291 and Market-Driven Environmental Regulation', 42 *Kan. L. Rev.* (1993) 243, at 252.

[188] See, e.g., Case 302/86, *Commission v. Denmark*, [1988] ECR 4607, [1989] 1 CMLR 619.

[189] Case 169-91, [1992] ECR I-6635, recital 15.

[190] *WH Smith Do-It-All Ltd. v. Peterborough City Council*, [1990] 2 CMLR 577 (Queen's Bench 1990).

developed under GATT. In the Herring and Salmon case under the superseded US-Canada Free Trade Agreement, the panel suggested a balancing test under Article XX(g) of GATT.[191] This related to the question, under Article XX(g), of whether the measure was 'primarily aimed at' conservation. This question, while unique to Article XX(g), may be viewed as somewhat analogous to the necessity test in Article XX(b) and (d). The Panel decided that the key to this question was whether the Canadian government would have adopted the measure for conservation reasons alone, and that, in turn, this could be determined on the basis of a cost-benefit analysis relating trade detriment to domestic regulatory benefit.[192]

(c) United States

'While it has become standard practice at least since *Pike v. Bruce Church* ... to consider, in addition to [issues of discrimination and inconsistent regulation], whether the burden on commerce imposed by a state statute "is clearly excessive in relation to the putative local benefits," ... such an inquiry is ill suited to the judicial function and should be undertaken rarely if at all.'[193] '[I]n *no* area has the Court engaged in the sort of open-ended balancing the scholars have recommended.'[194] 'Contrary to some suggestions, courts sometimes *must* attempt to "weigh" non-comparables.'[195] This debate continues.

In the US commerce clause context, balancing amounts to lax scrutiny, and often validation, of the local measure. '[T]his lesser scrutiny is only available "where other legislative objectives are credibly advanced and there is no patent discrimination against interstate trade".'[196] The dichotomy established by the Court, between patent discrimination (including both *de jure* and certain *de facto* discrimination) and legislation with only incidental effects on interstate commerce, emphasizes the intent, whether patent or latent. In this sense, 'incidental' means unintended. Where the adverse effects on interstate commerce are incidental, the Court will engage in balancing,[197] but will almost always uphold the local legislation, avoiding difficult questions and challenges to the Court's legitimacy. In the *Carbone* case, Justice Souter,

[191] United States–Canada Binational Panel, 'In the Matter of Canada's Landing Requirement for Pacific Coast Salmon and Herring', Panel No. CDA 89–1807–01, para. 6.13 (Oct. 16, 1989), available in LEXIS, INTLAW Library, USCFTA File [hereinafter 'Salmon and Herring Panel Report']. The panel was applying GATT Arts. XI and XX, which were incorporated into the U.S.–Canada Free Trade Agreement under Arts. 407 and 1201, respectively, thereof.

[192] *Ibid.* at paras. 7.08–7.09.

[193] *CTS Corp. v. Dynamics Corp. of America*, 481 US (1986) 69, at 95 (Scalia, J., concurring) (citations omitted). Note that this quote refers to a proportionality test.

[194] Regan, *supra* note 31, at 1093.

[195] Tribe, supra note 80, at 421 (citations omitted; emphasis in original). See *Pike v. Bruce Church, Inc.*, 397 US (1970) 137; *Kassel v. Consolidated Freightways Corp.*, 450 US (1981) 662; *Northwest Cent. Pipeline Corp. v. State Corp. Comm'n of Kan.*, 489 US (1989) 493. In *Raymond Motor Transportation, Inc. v. Rice*, 434 US (1978) 429, at 441, the Court observed that 'experience teaches that no single conceptual approach identifies all of the factors that may bear on a particular case'.

[196] *Chemical Waste Management, Inc. v. Hunt*, 504 US (1992) 334, at 343, note 5 (quoting *Philadelphia v. New Jersey*, 437 US (1978) 617, at 624).

[197] *Hunt v. Washington State Apple Advertising Commission*, 432 US (1977) 333.

joined by Justices Blackmun and Rehnquist, argues that the purported balancing that has become part of the Court's jurisprudence is 'not so much an open-ended weighing of an ordinance's pros and cons, as an assessment of whether an ordinance discriminates in practice or otherwise unjustifiably operates to isolate a State's economy from the national common market'.[198]

The ECJ 'seems to place a much heavier thumb on the [EU] side of the scale than the Supreme Court places on the federal side'.[199] Indeed, the ECJ has seemed more willing to invalidate Member State legislation based on failure of proportionality testing or necessity testing than the Supreme Court has seemed willing to do based on its balancing.

2 Maximization of Net Gains of Trade and Regulation

Balancing can be viewed as the cost-benefit analysis of resignation. It avoids the apparent arrogance of seeking, perhaps with false precision, to evaluate and commensurate various factors, but simply looks at them and decides. In this regard, like proportionality testing, it intentionally avoids the claims to precision of cost-benefit analysis or comparative cost-benefit analysis. Because balancing, like cost-benefit analysis, is not explicitly comparative (or dynamic) in theory, and usually is not comparative in practice, it provides less scope for maximization of net gains of trade and regulation than comparative cost-benefit analysis.

One important distinction between necessity testing and (the comparative form of) proportionality testing, on the one hand, and balancing and (non-comparative) cost-benefit analysis, on the other, is the willingness of necessity testing and proportionality testing to engage in comparative evaluation: to consider at least one type of hypothetical alternative. That is, necessity testing and the comparative form of proportionality testing are willing to examine whether there is a less costly alternative in trade terms. Under this rubric, for example, they would consider whether international action — integration — to achieve the relevant local goal is a less trade restrictive alternative.[200] On the other hand, balancing and non-comparative cost-benefit analysis balance actual factors and costs, without imagining the possibility of more efficient alternatives through integration. Of course, such speculation raises important questions of legitimacy, and when GATT or WTO panels have suggested that international cooperation is a less trade restrictive alternative under Article XX, for example in the Tuna decisions,[201] environmentalists and others

[198] *C&A Carbone, Inc. v. Town of Clarkstown*, 511 US (1994) 383, at 423 (Souter, J., dissenting). Souter argues that this balancing 'is similar to, but softer around the edges than, the test we employ in cases of overt discrimination'. See also Regan, *supra* note 31.

[199] Kommers and Waelbroeck, *supra* note 3, at 219.

[200] Another well-known example in the EU context is labelling requirements in place of substantive regulation. See, e.g., Case 179/85, *Commission v. Germany (Re the Use of Champagne-Type Bottles)*, [1986] ECR 3879, [1988] 1 CMLR 135; Case 16/83, *Criminal Proceedings Against Karl Prantl*, [1984] ECR 1299, [1985] 2 CMLR 238.

[201] First Tuna Panel Report, *supra* note 21, and Second Tuna Panel Report, *supra* note 126.

have criticized this apparent usurpation of the power of national governments to decide the means to their chosen ends.

3 Administrability: Standards versus Rules

Balancing is perhaps the least predictable of our trade-off devices as it imposes the fewest constraints on decision-making, although one constraint it often imposes is that all relevant factors must be considered. Balancing is also relatively costly to administer, although because of its relative modesty of precision, it may be more administrable than cost-benefit analysis or comparative cost-benefit analysis.

4 Distributive Concerns

Balancing raises the same distributive concerns as cost-benefit analysis and comparative cost-benefit analysis.

5 Moral Concerns

Interestingly, balancing may have greater claims to moral legitimacy than cost-benefit analysis. Balancing does not seek to commodify values and, unlike some forms of cost-benefit analysis, has room for consideration of non-monetizable and non-commensurable values. Rather, balancing may have more in common with deliberative decision-making, providing room for all considerations to be included in the decision.

6 Theoretical Legitimacy: Avoidance of Interpersonal Comparison of Utility

Balancing raises concerns regarding interpersonal comparison of utility similar to those raised by cost-benefit analysis, although the concerns may be reduced because balancing explicitly avoids claims of precise comparison.

E *The Move from Comparative Cost-Benefit Analysis*

We began with the proposition that comparative cost-benefit analysis unqualifiedly maximizes the net sum of gains from trade and from regulation. However, at least as a trade-off device, comparative cost-benefit analysis experiences real problems of administrability, and raises distributive, moral and theoretical concerns. This article has attempted to compare other trade-off devices with comparative cost-benefit analysis in these terms, with a view to suggesting that the latter is not used because of these problems, which may be reduced, at a cost in terms of maximization of net gains, by the use of other trade-off devices. If these trade-off devices are chosen accurately with social welfare in mind, we may presume that the cost in terms of maximization is less than the gains in terms of addressing distributive, moral and theoretical concerns. However, it may be that our capacity to optimize social welfare is limited by institutional constraints, including transaction costs and strategic behaviour. It may be that we as a global society have not yet developed institutional solutions that facilitate greater use of comparative cost-benefit analysis — that we have not extended the Pareto frontier as far as we might by institutional innovation. With greater evaluation and institutional innovation, it may be that comparative cost-benefit analysis will play a greater role in international decision-making.

For many commentators and judges, simple national treatment is the appropriate fall-back position. However, this article has shown that national treatment, in the absence of explicit discrimination or evidence of intentional unjustified discrimination, may suffer from some of the same problems as comparative cost-benefit analysis. Furthermore, there seem to be significant instances where discipline is worthwhile in the absence of explicit discrimination or evidence of intentional discrimination. Simple means-ends rationality testing adds little to the depth of scrutiny provided by national treatment. Proportionality testing is quite similar to cost-benefit analysis, with a greater margin of deference, and consequently provides some of the same benefits and is susceptible to some of the same problems. Necessity testing seems overbroad and underinclusive, but nevertheless is frequently used. Subject to the 'reasonably available' qualification, it operates on two parameters: trade cost and regulatory cost. However, it declines to include regulatory benefit in its analysis. It accepts a degree of inaccuracy in exchange for the benefits of avoiding the greatest moral and theoretical concerns that may come of evaluating and comparing the benefits of domestic regulation. Balancing, as a fuzzy cost-benefit analysis or comparative cost-benefit analysis, seems to have some real benefits, including the avoidance of attempts to commensurate in mathematical terms. Where balancing includes considerations of whether a less restrictive alternative exists, it incorporates some of the benefits of necessity testing with a 'reasonably available' qualification.

All of the trade-off devices considered here have distributive problems: they all make binary decisions that may leave costs on losers. This can be rationalized on a broad basis: in a community, sometimes I lose and sometimes you lose. On the other hand, this problem of distribution — of compensation to losers — may be reduced by referring the decision to the political process. In this connection, the political process — the legislature, in particular — may be viewed as a specialized institution for the transfer of value, especially under conditions of incommensurability. Courts may transfer more difficult problems to the legislature simply by declining to settle them, or by settling them in an unsatisfactory manner (particularly where not to decide is to decide). In this way, use of a device such as national treatment which declines to discipline a range of local legislation that seems inefficient may be justified as a referral of the linked tasks of interpersonal comparison of utility and distribution to the legislature. It is in this sense that those who argue for national treatment as the main trade-off device can be correct. Of course, this argument for national treatment is admissible only where the legislature is available to act; this was not widely the case in the pre-Single European Act history of the European Community, and is not the case at all in the present days of the WTO.

However, necessity testing subject to a 'reasonably available' qualification seems to provide some of the same benefits as national treatment, with greater ability to maximize net gains from trade and regulation. At the same time, it avoids the greatest problems of administrability, moral concerns and theoretical concerns. Moreover, necessity testing subject to a 'reasonably available' qualification accepts more responsibility for the adjudicator than does national treatment, standing ready to fill

gaps in legislative capability. This fact may support the use of necessity testing subject to a 'reasonably available' qualification in the GATT/WTO context.

One might then argue that national treatment is appropriate for circumstances where a well-developed legislative capacity exists. And indeed, in the US, the basic rule seems to be national treatment, with other tests serving as mere proxies for or adjuncts to national treatment. Conversely, a basic rule of necessity testing subject to a 'reasonably available' qualification seems more appropriate where central legislative capacity is more limited, such as the WTO.

Table B summarizes the comparison described above, while Table C analyses the factors addressed by each of the trade-off devices in terms of maximization of gains from trade and regulation.

4 Conclusion: Trade-offs, Institutional Choice and Subsidiarity

We can consider the trade-off devices reviewed in this article as dynamic devices or heuristics for allocation of jurisdiction — as dynamic components of constitutions. First, to which level of governance should responsibility be assigned? And to which level of governance is this power more valuable? Second, is there a way in which this

Table B: Summary of Analysis

	Maximization	*Administrability*	*Moral concerns*	*Theoretical concerns*
National treatment	no direct maximization	good in theory, but flows into other tests	often refers difficult decisions to legislature	not raised until flows into other tests
Necessity testing subject to a 'reasonably available' qualification	maximizes at only trade cost and cost of regulation parameters	problem	reduced due to abstention from assessment of regulatory benefits	reduced due to abstention from assessment of regulatory benefits
Proportionality	balancing with a margin of deference	larger problem	significant as seeks to commensurate	significant as seeks to engage in interpersonal comparison
Balancing/cost-benefit analysis	non-dynamic; therefore limited maximization	larger problem	significant as seeks to commensurate	significant as seeks to engage in interpersonal comparison
Comparative cost-benefit analysis	full maximization	largest problem	significant as seeks to commensurate	significant as seeks to engage in interpersonal comparison

Table C: Analysis of Maximization							
	Discipline patent discrimination	*Trade restriction – static (S) or comparative (C)*	*Regulatory cost – static (S) or comparative (C)*	*Regulatory benefit – static (S) or comparative (C)*	*Relate trade restriction to regulatory cost*	*Margin of appreciation*	*All factors – static (S) or comparative (C)*
National treatment	X						
Necessity testing	X	C				X	
Necessity testing subject to a 'reasonably available' qualification – RA	X	C	C		X	X	
Proportionality		S	S	S	X	X	S
Balancing/cost-benefit analysis		S	S	S	X		S
Comparative proportionality	X	C	C	C	X	X	C
Comparative cost-benefit analysis	X	C	C	C	X		C

power can be fragmented so that the portion that is more valuable at the local level is enjoyed there, while the portion that is more valuable at the central level is assigned to the central level? These questions are critical to the economics of federalism, which addresses the utility of congruence between effects and governance, and would seek to establish governmental units based on such congruence, subject to the costs of fragmentation of authority. It is essential to recognize that each trade-off device serves as a heuristic to allocate authority in particularistic, fact-specific ways over time, and thus may provide a more complex solution to the level of authority problem than a simple static and/or broad allocation, such as is expected to be found in constitutions.[202]

This article has argued that while comparative cost-benefit analysis can help us to choose institutions and, as applied by courts, may provide solutions to 'trade and ... problems' that maximize the net benefits of trade and regulation, it has limitations. These limitations are intrinsic to comparative cost-benefit analysis, but are also dependent on the particular institutional structure in which the decisions are made. Various simplified or truncated devices, and various institutional fora, for making these trade-offs, may be indicated in different factual contexts. 'Social scientists have concluded from their studies that decision-making shortcuts are appropriate for relatively unimportant decisions, and fuller optimization is worth the time for major ones.'[203] In addition, it is clear that courts or dispute resolution tribunals may not be the best place to engage in comparative cost-benefit analysis. Rather, the redistributive question always raised by potential Pareto efficiency is seen as the natural province of legislatures. Finally, legislatures overcome the problems of interpersonal comparison of utility insofar as they are places where preferences are revealed and collated directly.

The question of which preferences to express at a lower level and which to express at a higher level lies at the core of subsidiarity analysis.[204] Just as each of our decisions is made through cost-benefit analysis, this article has argued that the choice of level would be made most accurately by cost-benefit analysis. However, this point is only one input in the choice of trade-off device, which includes as other real-world inputs costs of administration and error and distributive legitimacy, as well as problems of commensuration and interpersonal comparison of utility.

It is well to repeat that comparative cost-benefit analysis is inevitably political, and is never neutral. How could it be different, given that it seeks to bring together diverse preferences? Thus, it is important to approach comparative cost-benefit analysis with modesty, and to recognize that when it is performed by courts it must be justified by

[202] See Cross, 'Pre-Emption of Member State Law in the European Economic Community: A Framework for Analysis', 29 *CML Rev.* (1992) 447.

[203] Gottlieb, *supra* note 7, at 855, citing Jungermann, 'The Two Camps on Rationality', in H.R. Arkes and K.R. Hammond (eds.), *Judgment and Decision Making: An Interdisciplinary Reader* (1986) 627, at 633.

[204] Dehousse has pointed out the 'dual subsidiarity' at work in the EU: 'subsidiarity with respect to the [EU's] main *raison d'être*, namely market integration, and subsidiarity with respect to national regulatory policies'. Dehousse, *supra* note 83, at 388.

the costs of using other preference-revelation mechanisms like politics or markets, and will often be subject to being second-guessed by such mechanisms.

Finally, it may be worthwhile to suggest some testable hypotheses for further research. A new institutional economics theoretical perspective might yield a hypothesis that where political transaction costs are low for the production of central legislation, the political system would be used to make trade-offs of the kind discussed here. Thus, in circumstances of low political transaction costs, a narrow national treatment rule would be sufficient, referring the more difficult decisions to political decision-making. On the other hand, in circumstances of high political transaction costs, it may become more attractive to accept trade-off decisions made by courts, suggesting a necessity test, balancing test, cost-benefit analysis or comparative cost-benefit analysis. It is incumbent upon society to make trade-offs: the only question is which institutional mechanism should be used. In order to test this hypothesis, it would be necessary to examine particular circumstances to understand the move from national treatment to proportionality testing or balancing, and sometimes back again. For instance, can we explain the *Keck* decision in these terms? The line of argument might point out that prior to the legislation of the Single European Act, schlerotic legislative capacity gave impetus to the ECJ's development of the *Cassis de Dijon* line of jurisprudence, in order judicially to make the trade-off decisions that could not be made legislatively except at high transaction cost. The Single European Act facilitated central legislation, diminishing this motivation for ECJ action. On the other hand, the growth of at least necessity testing in the GATT/WTO system may be interpreted as a reaction to the inability to legislate easily in that context. Again, decisions must be made, and national treatment alone seems to leave too much on the table. Anecdotes such as these could be reviewed with precision and grouped together to determine whether this hypothesis may be used to guide the drafting and use of trade-off devices in particular circumstances.