
Nudge Goes International

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Abstract

This article introduces the concept of nudge – low-cost behaviourally informed modes of regulation that influence people’s decisions without limiting their choice set – into the behavioural analysis of international law. It sketches out the pathways through which nudges might influence the behaviour of countries, and highlights the normative implications associated with utilizing these regulatory tools in the international arena. That done, the article presents numerous case studies that demonstrate how nudges such as defaults, goals and rankings are integrated into the international legal terrain.

1 Introduction

For several decades, one of the leading perspectives in legal theory – perhaps the leading perspective – has been the economic analysis of law. The theory of human behaviour underpinning standard economic analysis of law – like economic analysis in general – has been rational choice theory. According to this theory, people always strive to enhance their own well-being by choosing the available option that maximizes their expected utility. In the past few decades, rational choice theory has been challenged by a growing body of empirical studies. These studies contested the assumption of thin, cognitive rationality by showing that people’s preferences often do not comply with the formal requirements of dominance, transitivity, invariance and so on. They also called into question the assumption of thick, motivational rationality by highlighting the role of motivations such as fairness, envy and altruism in people’s behaviour. In the past 20 years, jurists have incorporated the insights of behavioural analysis into legal scholarship and applied this methodology to a wide range of legal fields.¹

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¹ For early notable contributions, see Jolls, Sunstein and Thaler, ‘A Behavioral Approach to Law and Economics’, 50 *Stanford Law Review* (1998) 1471; Korobin and Ulen, ‘Law and Behavioral Science:

The expansion of standard economic analysis into public international law is a relatively recent development,² and the application of behavioural insights in this sphere is in its early stages.³ This is somewhat surprising given that behavioural insights have been used by international relations scholars for quite some time.⁴ For example, international relations scholars have used prospect theory, including loss aversion and risk seeking in the domain of losses, to explain the tendency of countries to take greater risks to avoid perceived losses⁵ and to ‘fight harder and hold out longer in trade disputes with preventive objectives than ... in cases with promotive ones’.⁶ It has also been argued that several cognitive heuristics and biases, such as over-confidence,⁷ the fundamental attribution error⁸ and loss aversion, tend to produce more hawkish decisions in international conflict situations.⁹

Applying behavioural insights to the analysis of international law comes with a unique set of challenges (beyond those associated with applying behavioural insights at the domestic level, such as concerns about the external validity of laboratory, vignette-based experiments and the overly bleak portrayal of human decision-making as being systematically irrational).¹⁰ One challenge stems from the fact that the players in the international arena come from different societies so cultural differences in judgment and decision-making may loom particularly large in this sphere. Another significant challenge is that most players in the international arena, including countries, international organizations and non-governmental organizations (NGOs), represent entire populations (sometimes numbering in the millions), and it is unclear how the

Removing the Rationality Assumption from Law and Economics’, 88 *California Law Review* (2000) 1051. For a book-long treatise, see E. Zamir and D. Teichman, *Behavioral Law and Economics* (2018).

² For overviews, see E.A. Posner and A.O. Sykes, *Economic Foundations of International Law* (2013); E. Kontorovich and F. Parisi (eds), *Economic Analysis of International Law* (2016); Sykes and Guzman, ‘Economics of International Law’, in Francesco Parisi (ed.), *The Oxford Handbook of Law and Economics* (2017), vol. 3, 439.

³ See generally van Aaken, ‘Behavioral International Law and Economics’, 55 *Harvard International Law Journal* (HILJ) (2014) 421, at 439–449; Broude, ‘Behavioral International Law’, 163 *University of Pennsylvania Law Review* (2015) 1099.

⁴ For overviews, see, e.g., R. McDermott, *Political Psychology and International Relations* (2004); Levy, ‘Psychology and Foreign Policy Decision-Making’, in L. Huddy, D.O. Sears and J.S. Levy (eds), *The Oxford Handbook of Political Psychology* (2nd edn, 2013) 301; see also the symposium ‘The Behavioral Revolution and International Relations’, 71 *International Organization* (2017) S1.

⁵ See, e.g., B. Farnham (ed.), *Avoiding Losses / Taking Risks: Prospect Theory and International Conflict* (1994); R. McDermott, *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy* (2001).

⁶ Berejikian and Early, ‘Loss Aversion and Foreign Policy Resolve’, 34 *Political Psychology* (2013) 649, at 649; see also Elms, ‘Large Costs, Small Benefits: Explaining Trade Dispute Outcomes’, 25 *Political Psychology* (2004) 241.

⁷ On over-confidence, see Moore and Healy, ‘The Trouble with Overconfidence’, 115 *Psychological Review* (2008) 502; Zamir and Teichman, *supra* note 1, at 64–66.

⁸ The fundamental attribution error denotes the tendency to attribute other people’s behaviour to their personal attitudes and motivations rather than to environmental influences and constraints. See L. Ross and R.E. Nisbett, *The Person and The Situation: Perspectives of Social Psychology* (1991); Zamir and Teichman, *supra* note 1, at 68–69.

⁹ Kahneman and Renshon, ‘Hawkish Biases’, in A.T. Thrall and J.K. Cramer (eds), *American Foreign Policy and the Threat of Fear: Threat Inflation since 9/11* (2009) 79.

¹⁰ See, e.g., Mitchell, ‘Taking Behavioralism Too Seriously?: The Unwarranted Pessimism of the New Behavioral Analysis of Law’, 43 *William and Mary Law Review* (2002) 1907.

psychology of individuals translates into decision-making by such entities.¹¹ Moreover, the distinction in this respect is not merely between groups and individuals; the players in the international arena also vary in their institutional design and decision-making processes and often include heterogeneous subgroups with conflicting interests and perspectives. However, these challenges do not negate the application of behavioural analysis to international law.¹² Rather, they require a careful analysis into the unit of analysis involved in the given instance (for example, political leaders, domestic bureaucrats, diplomats) and the precise means by which behavioural phenomena might alter their decisions.¹³

Despite the considerable challenges it faces, several fruitful applications of behavioural insights have already been implemented in international law. Generally speaking, the greater the similarity between decision-making in the domestic and international spheres, the easier it is to apply behavioural insights developed in the former to the latter. Primary examples are negotiations and judicial decision-making.¹⁴ Other issues in international law that have benefited from a behavioural perspective include the trade-off between *ex ante* credibility of commitment and *ex post* flexibility in treaty design;¹⁵ the pros and cons of linking between treaties on different issues (such as human rights and trade);¹⁶ the design and implementation of human rights law¹⁷ and the pros and cons of international fact-finding reports.¹⁸

This article introduces the concept of nudge into the behavioural analysis of international law. Broadly defined, nudges are 'low-cost, choice-preserving, behaviorally informed approaches to regulatory problems'.¹⁹ As the research in the area has demonstrated, regulators can often change people's decisions by engaging in choice architecture – that is, by designing the decision-making environment such that it is likely to induce people to make decisions that the architect wishes to promote. For example, in many areas (such as consumer contracts, retirement savings and organ donations), empirical studies have documented a robust default effect – people's tendency to stick with the option that is designated as the default, even if opting out of that default entails no significant transaction costs.²⁰ This finding suggests that, by setting certain options as the default, choice architects can promote such options while maintaining people's liberty to opt out if they so wish.

¹¹ Broude, *supra* note 3, at 1121–1130.

¹² See van Aaken and Broude, 'The Psychology of International Law: An Introduction', 30 *EJIL* (2019) 1225.

¹³ Van Aaken, 'Experimental Insights for International Legal Theory' 30 *EJIL* (2019) 1237.

¹⁴ See, e.g., van Aaken, *supra* note 3, at 457–459 (a behavioural analysis of treaty negotiations); Broude, *supra* note 3, at 1143–1149 (judicial decision-making); Shereshevsky and Noah, 'Does Exposure to Preparatory Work Affect Treaty Interpretation? An Experimental Study on International Law Students and Experts', 28 *EJIL* (2017) 1287; Puig, 'Debiasing International Economic Law' 30 *EJIL* (2019) 1339.

¹⁵ See van Aaken, *supra* note 3, at 459–463.

¹⁶ *Ibid.*, at 548–549.

¹⁷ Woods, 'A Behavioral Approach to Human Rights', 51 *HILJ* (2010) 51.

¹⁸ Krebs, 'The Legalization of Truth in International Fact-Finding', 18 *Chicago Journal of International Law* (2017) 83.

¹⁹ Sunstein, 'Nudges.Gov: Behaviorally Informed Regulation', in E. Zamir and D. Teichman (eds), *The Oxford Handbook of Behavioral Economics and the Law* (2014) 719, at 719.

²⁰ See Zamir and Teichman, *supra* note 1 at 179–182.

In this article, we first introduce the notion of international nudges and argue that such nudges can be both effective and desirable (Part 2). Part 3 then presents several concrete examples of international nudges and explains the dynamic process by which they operate. Finally, Part 4 offers some concluding remarks and highlights potential paths for future research.

2 The Case for International Nudges

In recent years, many references to behavioural law and economics in the public and legal discourse have revolved around the legitimacy and effectiveness of nudges. Nudges are regulatory tools that use psychological insights to design the decision-making environment in a way that promotes certain choices. Importantly, nudges do not limit the choice set that individuals face and are therefore dubbed by some as ‘libertarian’.²¹ Following the seminal work of Richard Thaler and Cass Sunstein, regulatory agencies around the world have harnessed behavioural science to achieve their goals. Tools such as smart disclosures, social comparisons and default settings have been used to promote welfare in areas such as nutrition, saving for retirement and energy conservation.²² These regulatory interventions have been tested empirically over time, and their effectiveness (and limitations) has been documented.

Shifting from the domestic context (where governments nudge individuals) to the international arena requires careful consideration of the unit of analysis and the pathway of influence. In the international arena, one can point to at least three nudge-generating sources. One is within each country, as one actor attempts to influence the decision-making of another – for example, when diplomats who negotiate a treaty nudge the politicians in charge of ratifying the treaty towards a certain decision. A second source of nudges is when one country seeks to influence the decisions of other countries – either as part of a treaty (for example, when countries agree to nudge each other by establishing a non-binding goal regime) or unilaterally (for example, when a single nation attempts to change the policies of other nations by publicly ranking them *vis-à-vis* those policies). A third possible source of nudges is international organizations, such as the United Nations (UN) – for instance, when the UN General Assembly sets out various non-binding goals.

Understanding how nudges influence state behaviour requires some speculation, although one can think of numerous ways by which they might work. The most obvious one is by directly changing the decision-making environment of individuals vested with political power. Making certain policies more salient, framing options as gains or losses and so on can alter the decisions of politicians, who are ultimately human decision-makers themselves. Alternatively, nudges might influence the views

²¹ See Sunstein and Thaler, ‘Libertarian Paternalism Is Not an Oxymoron’, 70 *University of Chicago Law Review (UCLR)* (2003) 1159; see also Camerer *et al.*, ‘Regulation for Conservatives: Behavioral Economics and the Case for “Asymmetric Paternalism”’, 151 *University of Pennsylvania Law Review* (2003) 1211.

²² For an overview, see R.H. Thaler and C.R. Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (rev. edn, 2009).

of the public at large, which in turn indirectly influences policy-makers seeking to cater to those views. This effect may be achieved directly or through intermediaries such as the media or local NGOs. Finally, nudges might change the balance of power within national governments by tilting policies in a certain direction. For example, an international nudge that raises the saliency of environmental policies might help the local environmental agency to promote its agenda *vis-à-vis* other agencies within the local government.

Even if the precise mechanism by which nudges operate in the international arena is not always clear, their existing uses, as exemplified in Part 3, support the conjecture that they are indeed effective. As at the national level, however, the fact that nudges are already in use does not obviate the issues of the legitimacy and desirability of nudging, which in fact still loom large. Generally speaking, critics of nudges (from opposing camps) have argued that nudges might result in insufficient, or excessive, state intervention. The former criticism suggests that, while nudges can bring about significant changes in human behaviour, these changes may not always suffice given policy-makers' underlying goals, and, therefore, more intrusive measures, such as compulsory legal mandates, should be used.²³ Those who argue that nudges may result in excessive state intervention claim that exploiting flaws in human judgment and decision-making – as nudges often do – compromises people's control over their choices and is therefore a greater threat to their autonomy than overt coercion.²⁴

Elsewhere, we have generally sided with the former camp.²⁵ Be that as it may, the case for using nudges is considerably stronger in the international arena than at the national level for at least two reasons. First, unlike the national arena, in the international arena there is, as yet, no central legislative body, and the enforcement mechanisms of existing customary international law and treaty law are generally rather weak. Consequently, while, at the national level, the basic tripartite choice is between compulsory rules, nudges and doing nothing, only the latter two options are usually available in the international arena. Nudges in the international sphere are therefore less vulnerable to the criticism that they are not intrusive enough. Second, without delving into the thorny philosophical debate on whether corporate entities possess autonomy, normative judgment and moral agency, concerns over harm to individual autonomy appear to be relatively less relevant when nudges are used to influence the behaviour of countries and organizations rather than individuals.²⁶ This is especially true in settings where nudges are used only after governments explicitly consent to

²³ See Bubb and Pildes, 'How Behavioral Economics Trims Its Sails and Why', 127 *Harvard Law Review* (2014) 1593.

²⁴ See, e.g., Bovens, 'The Ethics of Nudge', in T. Grüne-Yanoff and S.O. Hansson (eds), *Preference Change: Approaches from Philosophy, Economics and Psychology* (2009) 207, at 216–217; Hausman and Welch, 'Debate: To Nudge or Not to Nudge', 18 *Journal of Political Philosophy* (2010) 123, at 128–132.

²⁵ Zamir and Teichman, *supra* note 1, at 184–185.

²⁶ To be sure, external interventions in states' sovereignty could implicate autonomy, as hegemonic powers dictate global policies. The controversy surrounding the market-based economic policies dictated by the Washington Consensus can serve as a case in point. See Gore, 'The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries', 28 *World Development* (2000) 789.

their use. Hence, international nudges are less vulnerable to the opposite accusation that they are disrespectful of autonomy.²⁷

One should acknowledge, however, that the limited political accountability in the context of international governance might weigh against international nudges. International policy-makers are relatively less accountable than domestic politicians.²⁸ The World Bank, for example, might implement nudges that affect the lives of individuals around the globe, while many of those individuals are unable to influence the decisions of the World Bank in any meaningful way. Since nudges offer unaccountable players in the international arena a new and powerful tool, they also generate new risks. Of course, this point plausibly assumes that expected, *ex post* accountability influences *ex ante* decision-making,²⁹ and it carries normative weight only to the extent that political accountability is desirable.³⁰

This normative debate notwithstanding, as a positive matter, nudges can and do play a role in the international sphere. In the following part, we demonstrate this role in opting-out arrangements in treaties, deadlines and other goal settings and in international rankings.

3 International Nudges in Action

In this part, we present numerous concrete examples of international nudges. Two preliminary caveats should be acknowledged at the outset. First, in none of these examples do we make a causal claim regarding the effect of the nudge, as the nudges examined were not introduced randomly into the decision-making environment. This reflects a general challenge facing the behavioural analysis of international law. However, this methodological obstacle is not insurmountable. Progress can still be made using the best available empirical and theoretical methodologies.³¹ Second, many (if not all) of the examples discussed in this part may serve numerous goals, aside from nudging decision-makers. In this regard, the international arena is not unique. A default rule in a national commercial code may serve as a nudge, but it might also promote various other purposes (for example, expressing desirable norms

²⁷ One might argue in response that, when nudging on the international level induces governments to adopt policies that adversely affect citizens' autonomy, the autonomy concern is important nevertheless. However, the adopted policies may use any number of regulatory techniques, ranging from mere disclosure duties to financial incentives to compulsory mandates. As long as the techniques used by governments are not nudges, the critique that nudges are particularly harmful for individual autonomy is irrelevant (and when they do use nudges, the issue is not with the nudging on the international level).

²⁸ See generally Krisch and Kingsbury, 'Introduction: Global Governance and Global Administrative Law in the International Legal Order', 17 *EJIL* (2006) 1.

²⁹ See Philip, 'Delimiting Democratic Accountability', 57 *Political Studies* (2009) 28. For an experimental demonstration of this point, see Pollmann, Potters and Trautmann, 'Risk Taking by Agents: The Role of Ex-Ante and Ex-Post Accountability', 123 *Economic Letters* (2014) 387.

³⁰ *Ibid.*, at 4. At the positive level, our analysis assumes that organizations will be responsive to being held accountable.

³¹ See Broude, *supra* note 3, at 1130–1135.

and saving on transaction costs). Given the scope of this article, the analysis will be limited to the nudging aspect of the examples presented.

A *The Default Effect: Opt-Out Arrangements in Multilateral Treaties*

One notable example of the use of choice architecture to influence states' decision-making can be found in the adoption of opt-in and opt-out arrangements in multilateral treaties. Numerous behavioural studies have documented a default effect in various contexts, including enrolment in pension plans, registration for posthumous organ donation and contractual negotiations.³² That is, once an option is set as the default, it often becomes the reference point for people's decisions, which in turn can trigger the omission and *status quo* biases.³³ The result is a 'sticky' default, which people tend not to opt out of, even when transactions costs are low.

Jean Galbraith has demonstrated the role of opt-in and opt-out arrangements by examining a dataset of over 300 multilateral treaties, in which ratifying countries could choose whether disputes arising from the treaty were to be adjudicated by the International Court of Justice (ICJ).³⁴ These treaties vary in their framing of this choice: some subject disputes to the jurisdiction of the ICJ, while implicitly allowing countries to make reservations to the pertinent provisions; others explicitly allow countries to opt out of the ICJ's jurisdiction and still others require countries to explicitly opt into it. In the implied-reservation framing, very few countries chose to opt out of ICJ jurisdiction, resulting in 95 per cent implicitly submitting to its jurisdiction. When the explicit opt-out framing was adopted, 20 per cent opted out of the ICJ's jurisdiction, meaning 80 per cent accepted it by default. Finally, in the explicit opt-in framing, only 5 per cent of the countries opted for the ICJ's jurisdiction. While these findings may seem puzzling from the perspective of rational choice theory, they fall neatly in line with the predictions made based on the default effect – namely, the tendency to stick to default arrangements, whatever they might be, even when the costs of opting out of them are trivial. The fact that very few countries opted into the ICJ jurisdiction in the opt-in framing, while relatively few opted out of it in the opt-out framing, is consistent with the findings regarding the default effect in decision-making by individuals. The fact that considerably more countries opted out of the jurisdiction when this option was made explicit is in line with the finding that people tend to ignore attributes and options that are not explicitly brought to their attention (and overweight variables and options that are).³⁵

³² See, e.g., Madrian and Shea, 'The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior', 66 *Quarterly Journal of Economics* (2001) 1149 (pensions); Johnson and Goldstein, 'Do Defaults Save Lives?', 302 *Science* (2003) 1338 (organ donations); Korobkin, 'The Status Quo Bias and Contract Default Rules', 83 *Cornell Law Review* (1998) 608 (contractual negotiations); see also E. Zamir, *Law, Psychology, and Morality: The Role of Loss Aversion* (2015), at 101–109.

³³ On these biases, see van Aaken and Broude, *supra* note 12.

³⁴ Galbraith, 'Treaty Options: Towards a Behavioral Understanding of Treaty Design', 53 *Virginia Journal of International Law* (2013) 309; see also van Aaken, *supra* note 3, at 463–468.

³⁵ See, e.g., Fischhoff, Slovic and Lichtenstein, 'Fault Trees: Sensitivity of Estimated Failure Probabilities to Problem Presentation', 4 *Journal of Experimental Psychology: Human Perception and Performance* (1978) 330; cf. D. Kahneman, *Thinking Fast and Slow* (2011), at 85–88ff (discussing the 'what you see is all there is' [WYSIATI] phenomenon).

As Galbraith rightly points out, however, correlation does not imply causation. Specifically, it is quite possible that the drafters of the treaties sought to tailor the default arrangement to the presumed preferences of the ratifying countries. Nonetheless, the magnitude of the effect and qualitative evidence from the records of treaty negotiations lend support to the conjecture that cognitive factors did play a role in this regard.³⁶ That said, one should be wary of overstating the power of the default effect. In both domestic and international arenas, interested parties might opt out of the default for reasons of rational cost-benefit analysis or cognitive heuristics.³⁷ Thus, for example, attempts to harmonize international commercial law might be thwarted by the reluctance of lawyers to apply unfamiliar norms to the contracts they draw up, prompting them to opt out of otherwise applicable conventions.³⁸

Nonetheless, the policy implications of the behavioural findings are straightforward: if the representatives of countries negotiating a given treaty wish to increase the adoption of a certain arrangement, they should strive to make it the default and make the option of opting out of the default less conspicuous. Since the officials involved in the drafting of treaties often differ in their professional skills, institutional affiliation and ideological inclinations from those who decide on whether or not to ratify the treaty, and since the countries taking part in the drafting of a treaty need not be the same as those considering its ratification, these findings are of considerable practical significance.

B Loss Aversion: Goal Setting

Another example of an international nudge may be found in the context of goal setting. A large body of research has examined the capacity of non-binding goals – that is, goals that are not backed by incentive mechanisms such as bonuses or penalties – to change human behaviour.³⁹ Setting a goal can function as a powerful motivation for people to focus on the task at hand and to exert more effort. The cognitive force driving this effect may be a shift of the reference point since, once the goal is established, failing to attain it is viewed as a loss.⁴⁰ The applications of this insight are vast, and goals have been shown to improve outcomes in areas such as work productivity, dieting and health treatments.⁴¹

³⁶ Galbraith, *supra* note 34, at 336–344 (finding support in negotiation history for delegates' recognition that choices of the form of opt-in and opt-out arrangements can have a practical effect, even if they are of no substantive legal importance).

³⁷ Cf. Willis, 'When Nudges Fail: Slippery Defaults', 80 *UCLR* (2013) 1157.

³⁸ Spagnolo, 'Green Eggs and Ham: The CISG, Path Dependence, and the Behavioural Economics of Lawyers' Choices of Law in International Sales Contracts', 6 *Journal of Private International Law* (2010) 417.

³⁹ For a review, see Locke and Latham, 'Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey', 57 *American Psychologist* (2002) 705.

⁴⁰ See Heath, Larrick and Wu, 'Goals as Reference Points', 38 *Cognitive Psychology* (1999) 79.

⁴¹ See Locke and Latham, *supra* note 39 (work productivity); Shilts, Horowitz and Townsend, 'Goal Setting as a Strategy for Dietary and Physical Activity Behavior Change: A Review of the Literature', 19 *American Journal of Health Promotion* (2004) 81 (dieting); Hurn, Kneebone and Cropley, 'Goal Setting as an Outcome Measure: A Systematic Review', 20 *Clinical Rehabilitation* (2006) 756 (health).

More recently, regulators have implemented non-binding goals as successful nudges that helped shift behaviour in a desirable direction. In the context of energy conservation, for example, allowing customers to set energy-saving goals helped bring about a significant reduction in electricity use.⁴² On a completely different front, setting goals has been used to raise female representation on the boards of publicly traded companies. In the United Kingdom, for instance, the percentage of female directors on the boards of the FTSE 100 companies doubled in five years after the creation of a voluntary target of 25 per cent (a figure that has since risen to 33 per cent).⁴³

Non-binding goals are becoming part of the international regulatory toolkit as well. A striking example of this is the United Nations Millennium Development Goals (MDGs).⁴⁴ Published in 2000, the MDGs included a range of specific targets that the global community should strive to achieve by 2015 in areas such as poverty reduction, education, infant mortality and gender equality. Following their adoption, a comprehensive reporting system managed by the UN monitored the progress made by countries with respect to each goal. By 2015, many of the targets set out in the MDGs were achieved – for example, the number of people living in ‘extreme poverty’ has declined by more than half⁴⁵ – and the UN has established a follow-up programme of Sustainable Development Goals (SDGs).⁴⁶ Nonetheless, it is difficult to infer a causal relationship between the establishment of the MDG and the ensuing improvement in the relevant indexes since improvement might have been made on these fronts irrespective of the MDGs.⁴⁷

A more recent example of non-binding goals functioning as a cornerstone of international policy-making may be found in the context of climate change. In 2009, the UN climate conference charged with creating a successor to the Kyoto Protocol ended in complete failure, due to the strong reluctance of industrialized countries to assume more onerous targets, having struggled to comply with the Kyoto goals.⁴⁸ Thus, it was decided to pursue a different regime architecture, one that would spur countries to action while maintaining their discretion – that is, a nudge.

The 2015 Paris Agreement did just that, by shifting from legally binding targets to a flexible system of non-binding self-imposed goals, thereby transforming the global

⁴² See Harding and Hsiaw, ‘Goal Setting and Energy Conservation’, 107 *Journal of Economic Behavior and Organization* (2014) 209.

⁴³ See Department for Business, Innovation and Skills, *Women on Boards: Five-Year Summary* (2015), available at www.gov.uk/government/publications/women-on-boards-5-year-summary-davies-review.

⁴⁴ For an overview, see Fukuda-Parr, ‘Millennium Development Goals: Why They Matter’, 10 *Global Governance* (2004) 395.

⁴⁵ See United Nations, *The Millennium Global Development Goals Report* (2015), at 4. Of course, the global outcomes in this regard hide significant variability between countries and regions.

⁴⁶ See Biermann *et al.*, ‘Global Governance by Goal Setting: The Noval Approach of the UN Sustainable Development Goals’, 26 *Current Opinion in Environmental Sustainability* (2017) 26.

⁴⁷ See Friedman, ‘Causal Inference and the Millennium Development Goals (MDGs): Assessing Whether There Was an Acceleration in MDG Development Indicators Following the MDG Declaration’, MPRA Paper no. 48793 (2013), <https://mpra.ub.uni-muenchen.de/48793/>.

⁴⁸ See Falkner, ‘The Paris Agreement and the New Logic of International Climate Politics’, 92 *International Affairs* (2016) 1107, at 1111.

policy on climate change.⁴⁹ At the global level, it sets the ambitious goal of limiting the temperature increase to 1.5 degrees Celsius above pre-industrial levels.⁵⁰ Perhaps more importantly, at the national level, it requires parties to submit ‘nationally determined contributions’ (NDCs) that delineate their specific goals to reduce greenhouse emissions. By design, these NDCs are non-binding. Whereas the procedural aspects governing the NDCs entail clear legal obligations,⁵¹ there is no legal obligation to actually achieve the goals set forth in the NDCs.⁵² Rather, the main mechanism put in place to bolster compliance is a public review process, which is to be held every five years.⁵³ While it is premature to judge whether the Paris Agreement is a success, it demonstrates the need for international nudges in the face of national sovereignty and shows how such a nudge can be designed.⁵⁴

Finally, while we cannot present a comprehensive theory of goal setting in this article, we would like to highlight four key issues that should be incorporated into the design of goal-based nudges. First, goals should be realistic. Empirical findings suggest that, when goals are set too high, the result may be that people quickly ignore them.⁵⁵ Second, agents should receive ongoing feedback about the progress they are making *vis-à-vis* their intended goal; this steers people’s decisions over time towards the goal, thereby helping to moderate its impact.⁵⁶ Third, goals should be clearly quantifiable; merely setting a goal of making a ‘best effort’ results in significantly lower outcomes than setting a precise objective.⁵⁷ Fourth, countries’ performance must be transparent. A key precondition for the effectiveness of goals in the international arena is the existence of accurate data regarding goal achievement.⁵⁸ This has been one of the major challenges facing the MDG project since some of the poorest and weakest countries of the world, who lag in certain major indicators, also lack a robust national data collection framework.⁵⁹

⁴⁹ Paris Agreement on Climate Change, UN Doc. FCCC/CP/2015/L.9/Rev.1, 12 December 2015. On the Paris Agreement, see generally Falkner, *supra* note 48.

⁵⁰ See Paris Agreement, *supra* note 49, Art. 2.1(a).

⁵¹ See *ibid.*, Art. 4.2: ‘Each Part shall prepare, communicate, and maintain successive nationally determined contributions.’

⁵² *Ibid.*, Art. 4.2: ‘Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.’ For a full analysis of the text, see Bodansky, ‘The Legal Character of the Paris Agreement’, 25 *Review of European, Comparative and International Environmental Law* (2016) 142, at 146.

⁵³ Paris Agreement, *supra* note 49, Art. 14.2.

⁵⁴ Measuring the effectiveness of international environmental policies, including those using binding goals, is a challenging task since constructing a counter-factual is usually impossible. The general picture on this front suggests that such policies are often effective. See Young, ‘Effectiveness of International Environmental Regimes: Existing Knowledge, Cutting-Edge Themes, and Research Strategies’, 108 *Proceedings of the National Academy of Science* (2011) 19, at 853. However, the picture is inconclusive. See Ringquist and Kostadinova, ‘Assessing the Effectiveness of International Environmental Agreements: The Case of the 1985 Helsinki Protocol’, 49 *American Journal of Political Science (AJPS)* (2005) 86.

⁵⁵ See, e.g., Harding and Hsiaw, *supra* note 42, at 220–221.

⁵⁶ See Locke and Latham, *supra* note 39, at 706.

⁵⁷ See *ibid.*

⁵⁸ See Mitchell, ‘Sources of Transparency: Information Systems in International Regimes’, 42 *International Studies Quarterly* (1998) 109.

⁵⁹ See United Nations, *supra* note 45, at 10–13 (discussing the importance of data collection and noting that ‘[w]hat gets measured gets done’).

C Loss Aversion: Deadlines

One particular type of goal that has gained considerable traction in the behavioural literature is the sort that addresses the time frame of performance of a given task – that is, deadlines. Deadlines exist in all spheres of private and public life and for diverse purposes. Sometimes they pertain to actions that people, organizations or countries are obliged to take, such as the duty of taxpayers to file tax returns or the obligation of countries to complete the destruction of their chemical weapons and production facilities.⁶⁰ In other instances, they pertain to non-obligatory actions, such as the time limit for appealing a court judgment or the deadline for signing a treaty. Deadlines can serve the interests of the entity setting the deadline, such as a seller's ability to manage its stock through promotional sales. But, occasionally, they are used to prompt action that is expected to benefit the actor (such as helping people to overcome procrastination in vaccinating against a seasonal disease) or society at large (such as prompting people to register for posthumous organ donation).⁶¹

Particular attention has been given to the role of deadlines in negotiation. Empirical and theoretical studies have found a deadline effect, whereby agreement is often reached at the last minute before the deadline.⁶² Deadlines can therefore help the parties become more focused and effective and increase the likelihood of reaching an agreement. This observation, which is widely reflected in diplomatic practice,⁶³ is also supported by studies indicating that, when there is a limited time to do something, people tend to be less wasteful and more focused, productive and creative.⁶⁴ While exogenous deadlines in international negotiations tend to be more effective than self-imposed or symbolic ones (because self-imposed deadlines can easily be extended and the adverse effects of not meeting self-imposed and symbolic deadlines tend to be less severe), all deadlines can have some effect on the negotiating parties.⁶⁵

Anecdotal observations and experimental studies, however, indicate that deadlines also have drawbacks. Excessively tight deadlines can result in worse agreements: time

⁶⁰ See Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Chemical Weapons Convention) 1993, 1974 UNTS 45, Arts IV.6, V.8. Examples of deadlines in international treaties abound. See, e.g., Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip 1995, 37 ILM 551 (1997), Arts X(1) (first phase of redeployment of Israeli forces in the West Bank) and XXXI(9) (approval of changes in the Palestinian Covenant by the Palestinian National Council).

⁶¹ See Birkimer *et al.*, 'Effects of Refutational Messages, Thought Provocation, and Decision Deadlines on Signing to Donate Organs', 24 *Journal of Applied Social Psychology* (1994) 1735; Zamir, Lewinsohn-Zamir and Ritov, 'It's Now or Never! Using Deadlines as Nudges', 42 *Law and Social Inquiry* (2017) 769.

⁶² See, e.g., Roth, Murnighan and Schoumaker, 'The Deadline Effect in Bargaining: Some Experimental Evidence', 78 *American Economic Review* (1988) 806; Ma and Manove, 'Bargaining with Deadlines and Imperfect Player Control', 61 *Econometrica* (1993) 1313.

⁶³ See M. Pinfari, *Peace Negotiations and Time: Deadline Diplomacy in Territorial Disputes* (2013); G. Berridge, *Diplomacy: Theory and Practice* (5th edn, 2015), at 55–60.

⁶⁴ See, e.g., Gersick, 'Time and Transition in Work Teams: Toward a New Model of Group Development', 31 *Academy of Management Journal* (1988) 9; S. Mullainathan and E. Shafir, *Scarcity: Why Having Too Little Means So Much* (2013), at 19–27.

⁶⁵ Berridge, *supra* note 63, at 55–60.

pressure produces a greater need for cognitive closure, so in high time-pressure conditions, negotiators are more inclined to resort to stereotypical thinking about their opponent. They are also less likely to revise erroneous fixed-pie perceptions and, consequently, reach less creative and integrative agreements.⁶⁶ A meta-analysis of dozens of studies has found that ‘imposing time pressure in conflicts may indeed be a double-edged sword’.⁶⁷ Depending on the particular circumstances of the negotiations, including the complexity of the disputed issues and the parties’ negotiation strategy, deadlines, while making agreements more likely, may also result in making them poorer in quality.⁶⁸

Commentators have observed that these laboratory findings are reflected in peace negotiations over territorial disputes and in multilateral treaty negotiations. Thus, the key conclusion that Marco Pinfari draws after comparing dozens of instances of negotiations over territorial disputes and analysing several case studies in depth is that agreements made under deadlines are less durable.⁶⁹ Jean Galbraith attributes the ‘remarkably creative’ arrangements of the Chemical Weapon Convention to the fact that during its extended formative years – from the late 1960s onwards – negotiations were conducted without deadlines, and its successful completion owed to an informal deadline of one year, set in 1991.⁷⁰ Deadlines, even if more symbolic than pragmatic, may affect the signing and ratification of treaties as well. Thus, for example, it was found that of the 11 countries that opted not to sign the Chemical Weapons Convention shortly after it was opened for signature, four, including the USA, signed it in the final month before it came into effect.⁷¹

D Social Comparison: Rankings

The last nudge we would like to address is the emerging practice of country rankings, a practice that has been dubbed a ‘new technology of global governance’.⁷² A robust literature in behavioural economics and social psychology has demonstrated that social comparison is a strong motivating force in human behaviour.⁷³ According to this literature, people judge their position not only in absolute terms but also in relation to

⁶⁶ De Dreu, ‘Time Pressure and Closing of the Mind in Negotiation’, 91 *Organizational Behavior and Human Decision Processes* (2003) 280; see also Carpenter *et al.*, ‘The Complications of Controlling Agency Time Discretion: FDA Review Deadlines and Postmarket Drug Safety’, 56 *AJPS* (2012) 98.

⁶⁷ Stuhlmacher, Gillespie and Champagne, ‘The Impact of Time Pressure in Negotiation: A Meta-Analysis’, 9 *International Journal of Conflict Management* (1998) 97, at 112.

⁶⁸ For a review of the literature, see Pinfari, *supra* note 63, at 23–30.

⁶⁹ *Ibid.*, at 136–154.

⁷⁰ Chemical Weapons Convention, *supra* note 60. Galbraith, ‘Deadlines as Behavior in Diplomacy and International Law’, in H. Cohen and T. Meyer (eds), *International Law as Behavior* (forthcoming), at 5–6, 15–16, available at http://scholarship.law.upenn.edu/faculty_scholarship/1560/.

⁷¹ *Ibid.*, para. 6.

⁷² See generally Cooley, ‘The Emerging Politics of International Rankings and Ratings: A Framework for Analysis’, in A. Cooley (ed.), *Ranking the World: Grading States as a Tool of Global Governance* (2015) 1; Davis, Kingsbury and Engle Merry, ‘Indicators as a Technology of Global Governance’, 46 *Law and Society Review (LSR)* (2012) 71.

⁷³ For an overview, see J. Suls and L. Wheeler (eds), *Handbook of Social Comparison: Theory and Research* (2010).

the positions of other people. The desire to not be at the bottom of the distribution, to be above average or to ascend to the top can be a powerful driver of human behaviour, independent of the payoffs associated with a given task. The power of such social comparisons has been demonstrated in numerous settings, including academic performance and work productivity, through a range of methodologies.⁷⁴

Building on this body of knowledge, behavioural economists have examined how social comparisons might be used as a regulatory tool.⁷⁵ One area where this approach has had a significant impact is the promotion of energy efficiency at the household level. Numerous field experiments have shown that informing households, through their electric bill, how their energy efficiency compares with their neighbours can bring about a significant decrease in energy consumption.⁷⁶ As a result, many utility companies around the world have adopted such comparative information in the bills they send their clients.⁷⁷

As always, extrapolating from the individual or the household to the state level is challenging. Nonetheless, there is reason to suspect that comparative data might serve as a motivational tool at the international level as well. Credible publications of a country's international ranking can spur that country's elite decision-makers to action since a country's performance in international rankings can affect their self-esteem. Given its simplicity and salience, a country's ranking can also serve as a focal point of media coverage, NGO activity and public discourse, thereby creating demand for reform from the bottom up.⁷⁸ Consequently, elite decision-makers might care about their country's performance even when they view the ranking as meritless, simply in order to get re-elected.

Two illustrations can demonstrate the use of country rankings in the international sphere. The first reflects unilateral acts of powerful countries in a bid to prompt other countries to take action in transnational issues. The ongoing effort by the USA to combat international human trafficking is a case in point. The main tool used by the USA on this front is the State Department's annual Trafficking in Persons Report (TIP Report).⁷⁹ The TIP Report divides countries into three tiers, based on the efforts they make to combat human trafficking.⁸⁰ While inclusion in the bottom tier

⁷⁴ See, e.g., Azmat and Iriberrí, 'The Importance of Relative Performance Feedback Information: Evidence from a Natural Experiment Using High School Students', 97 *Journal of Public Economics* (2010) 435; Herbst and Mas, 'Peer Effects on Worker Output in the Laboratory Generalize to the Field', 350 *Science* (2015) 545.

⁷⁵ See Thaler and Sunstein, *supra* note 22, at 53–73.

⁷⁶ See, e.g., Ayres, Raseman and Shih, 'Evidence from Two Large Field Experiments That Peer Comparison Feedback Can Reduce Residential Energy Usage', 29 *Journal of Law, Economics, and Organization* (2013) 992.

⁷⁷ See Allcott and Kessler, 'The Welfare Effects of Nudges: A Case Study of Energy Use Social Comparisons', NBER Working Paper no. 21671 (2015), available at www.nber.org/papers/w21671.

⁷⁸ For a broader discussion on the mechanisms whereby rankings may influence countries' decisions, see Kelley and Simmons, 'Politics by Number: Indicators as Social Pressure in International Relations', 59 *AJPS* (2015) 55, at 58–59.

⁷⁹ For a methodological overview of the Trafficking in Persons Report, see US Department of State, Trafficking in Persons Report (2017), at 25–29.

⁸⁰ *Ibid.*

of the TIP Report can result in sanctions (suggesting a rational choice basis for this programme),⁸¹ it most likely also triggers a behavioural effect given its comparative nature. For example, the 2001 TIP Report listed Israel in the bottom category, noting that '[t]he Government of Israel does not meet the minimum standards for combating trafficking in persons'.⁸² This finding quickly prompted a public outcry that led to political action: a leading news website emblazoned the news item with the headline 'Human Trafficking Report Ranks Israel with Third World Nations',⁸³ and in her opening statement to the Knesset (Parliament) committee discussing the report, Member of the Knesset Colette Avital noted:

[W]e are in a 'good' spot between Belarus, Albania, Gabon and a few other countries such as Bosnia-Herzegovina, Burma and Indonesia. We are there in a very 'respectable' spot. ... In this regard, I want to say that our company in this area is not a great compliment to us. We are like a Third World country.⁸⁴

The impact of the report was immediate: the following year, Israel made the necessary amendments and was elevated to the second tier;⁸⁵ by 2012, the country was elevated to the top tier.⁸⁶ In general, observational data suggests that inclusion in the TIP Report impels countries to toughen their policies on human trafficking (that is, to criminalize it) in order to raise their ranking.⁸⁷

While such unilateral use of comparisons in the international arena can prove effective, it also has some drawbacks. Notably, since the ranking is conducted by a single country, idiosyncratic political interests might play a role in the design of the underlying policies.⁸⁸ Accordingly, it is worth examining rankings established by international organizations rather than individual states. A key example is the World Bank's Doing Business Report (DBR),⁸⁹ which presents an index based on quantitative indicators that measure the friendliness of the regulatory environment with respect to small- and medium-sized businesses. To this end, it examines issues such as the ease of starting a new business, the ability to enforce contracts, the simplicity of import and export and the flexibility of the labour market.⁹⁰ Currently, the DBR has proven to be a major driver of policy changes.⁹¹ Countries around the world devote significant

⁸¹ See Trafficking Victims Protection Act 2000, 22 US Code § 7107.

⁸² US Department of State, Trafficking in Persons Report (2001), at 88.

⁸³ See, e.g., Y. Benhorin, *Human Trafficking Report Ranks Israel with Third World Nations*, available at www.ynetnews.com/articles/0.7340.L-4088190.00.html (in Hebrew).

⁸⁴ The Knesset, Minutes of Investigatory Committee on Human Trafficking, 18 July 2001.

⁸⁵ US Department of State, Trafficking in Persons Report (2002), at 63.

⁸⁶ US Department of State, Trafficking in Persons Report (2012), at 194.

⁸⁷ See Kelley and Simmons, *supra* note 78, at 62–68.

⁸⁸ For a discussion of the drawbacks of such policies, see Broude and Teichman, 'Outsourcing and Insourcing Crime: The Political Economy of Globalized Criminal Activity', 62 *Vanderbilt Law Review* (2009) 795, at 844–847.

⁸⁹ See World Bank, *Doing Business 2018: Reforming to Create Jobs* (DBR) (2018), at 1–22.

⁹⁰ To be sure, the DBR also involves an element of direct incentives since it plays a role in decisions regarding financial aid. See Davis, Kingsbury and Engle Merry, *supra* note 72, at 92. However, that component is arguably not a motivating factor for many of the countries included in the DBR.

⁹¹ See Doshi, Kelley and Simmons, 'The Power of Ranking: The Ease of Doing Business as a Form of Social Pressure', *International Organization* (forthcoming).

resources to boosting their standing in its rankings, with some even establishing special governmental departments for that purpose.⁹² Even the harshest critics of the DBR concede its effectiveness at promoting deregulation and pro-business policies.⁹³ The precise causal mechanism underlying the impact of the DBR probably cannot be empirically established – after all, even in the absence of a ranking system, countries have strong incentives to adopt pro-business policies.⁹⁴ To the extent that the DBR is effective, however, it is due at least in part to its comparative nature. In a press release marking the 15th anniversary of the DBR, its creator Simeon Djankov noted that, although this was an unintended consequence, the competitive environment created by the DBR is responsible for its biggest impact.⁹⁵ As he noted, ‘once you start ranking countries and comparing them, natural competition like a “World Cup” or the “Olympics” comes about’.⁹⁶

Of course, there are considerable challenges to designing nudges based on social comparisons at the international level. For one, the methodological difficulties of quantifying complex attributes and ranking them on a numeric scale are significant.⁹⁷ The DBR, for example, has been heavily criticized for omitting numerous nuanced dimensions of many legal systems.⁹⁸ Perhaps more importantly, even if one can design a perfect scale, normative questions still loom large. For example, the specific measures incorporated into an international index might not reflect the ideal policies for all countries, given their individual characteristics.⁹⁹ More fundamentally, the normative goal of the index itself could be challenged.¹⁰⁰ Finally, the very act of ranking could potentially create perverse incentives as countries attempt to ‘game the system’ and alter their behaviour so as to artificially enhance their ranking without addressing the core issues at hand.¹⁰¹ While this is clearly a valid concern (readers affiliated with

⁹² See Michaels, ‘Comparative Law by Numbers? Legal Origins Thesis, Doing Business Reports, and the Silence of Traditional Comparative Law’, 57 *American Journal of Comparative Law (AJCL)* (2009) 765, at 772.

⁹³ See Høyland, Moene and Willumsen, ‘The Tyranny of International Index Rankings’, 97 *Journal of Development Economics* (2012) 1.

⁹⁴ The literature examining the connection between the DBR and foreign direct investment has documented a positive association between the two, yet this association is nuanced and differs from one country to the next. See Corcoran and Gillanders, ‘Foreign Direct Investment and the Ease of Doing Business’, 151 *Review of World Economy* (2015) 103.

⁹⁵ See ‘15 Years of Reforms to Improve Business Climate Worldwide’, *World Bank*, available at www.worldbank.org/en/news/immersive-story/2017/10/31/15-years-of-reforms-to-improve-business-climate-worldwide.

⁹⁶ *Ibid.*

⁹⁷ See Høyland, Moene and Willumsen, *supra* note 93; Cooley, ‘Emerging Politics’, *supra* note 72, at 27–30.

⁹⁸ See, e.g., Fauvarque-Cosson and Kerhuel, ‘Is Law an Economic Contest? French Reactions to the Doing Business World Bank Reports and Economic Analysis of the Law’, 57 *AJCL* (2009) 811, at 820–824.

⁹⁹ See Arruñada, ‘Pitfalls to Avoid When Measuring Institutions: Is Doing Business Damaging Business?’, 35 *Journal of Comparative Economics* (2007) 729.

¹⁰⁰ For a critique of the BDR and its laissez-faire economic agenda with respect to labour relations, see Lee, McCann and Tom, ‘The World Bank’s “Employing Workers” Index: Findings and Critiques – A Review of Recent Evidence’, 147 *International Labour Review* (2008) 416. This critique eventually brought about significant reforms in the BDR. See Davis, Kingsbury and Engle Merry, *supra* note 72, at 93–95.

¹⁰¹ See Cooley, ‘Emerging Politics’, *supra* note 72, at 5. On the corruptive effect of quantitative indicators, see generally Campbell, ‘Assessing the Impact of Planned Social Change’, 2 *Evaluation and Program Planning* (1979) 67, at 84–86.

law schools in the USA might recall the various measures taken by their schools to artificially boost their respective US News and World Report rankings), it should not be overstated.¹⁰² A recent evaluation of the DBR concluded that no evidence was found of reforms being introduced by countries for the sole purpose of raising their ranking.¹⁰³

Our positive view of rankings, in general, and of the DBR, in particular, is limited to their effectiveness at promoting reforms and should not be read as an overall endorsement of the specific agenda set by any particular ranking system. That said, our analysis highlights a strategy that critics of the DBR might adopt – namely, the publication of alternative rankings that focus on other policy goals. For example, the UN routinely publishes the Human Development Index, which focuses on issues such as health, knowledge and the standard of living, with the explicit aim of drawing attention away from economic growth.¹⁰⁴ Finally, the behavioural literature highlights a number of issues to bear in mind when designing nudges based on comparative performance. Occasionally, social comparisons can be counterproductive and lead to reduced performance, due to their demoralizing effect.¹⁰⁵ Special attention should also be given to the comparison benchmark – for example, global versus regional.¹⁰⁶ To this end, comparison with a salient rival may be more effective as it has a greater impact on a country's status.¹⁰⁷ Lastly, the design of the comparative benchmark might be influenced by the specific issue in question – for example, whether the issue is one in which countries seek to be at the forefront (such as international investments) or wish to avoid rating among the worst (such as in human trafficking).¹⁰⁸

4 Conclusion

This article has made the case for using nudges as a policy tool in the international arena and has examined several concrete examples of such nudges in action. Arguably, nudges may not be the first-best solution to many of the pressing challenges facing the global community. A binding and fully enforceable command-and-control regime may be the ideal way to deal with climate change, and a global tax-and-transfer system may be the best means of combating extreme poverty. In this regard, nudges

¹⁰² See Sauder and Lancaster, 'Do Rankings Matter? The Effects of U.S. News & World Report Rankings on the Admissions Process of Law Schools', 40 *LSR* (2006) 105.

¹⁰³ World Bank, *Doing Business: An Independent Evolution* (2008), at xviii; but see Schueth, 'Assembling International Competitiveness: The Republic of Georgia, USAID, and the Doing Business Project', 87(1) *Economic Geography* (2011) 51 (suggesting that Georgia attempted to game the DBR).

¹⁰⁴ See United Nations Development Program, *Human Development Report 2016: Human Development for Everyone* (2016), at 193–196 (describing the index).

¹⁰⁵ See I. Barankay, *Rank Incentives: Evidence from a Randomized Workplace Experiment* (2012), available at https://faculty.wharton.upenn.edu/wp-content/uploads/2012/07/rankincentives_1.pdf.

¹⁰⁶ It is claimed that rankings are sometimes conducted in a manner that deliberately targets regional rivalries. See Cooley, 'Emerging Politics', *supra* note 72, at 21.

¹⁰⁷ See Doshi, Kelley and Simmons, *supra* note 91 (presenting experimental data showing that Indians were more motivated to act on the DBR when presented with comparative data pertaining to China).

¹⁰⁸ For a comprehensive analysis of the desired policies, see Roels and Su, 'Optimal Design of Social Comparison Effects: Setting Reference Groups and Reference Points', 60 *Management Science* (2014) 606.

should be viewed as a second-best option given the limitations of policy setting and enforcement at the international level.

Future research could further develop the concept of international nudges along both theoretical and empirical lines. From a theoretical perspective, future studies could examine other regulatory domains where nudges might be used and highlight other behavioural tools (for example, anchoring, framing) that could be put to use. Future theoretical studies could also delve into the normative questions raised by international nudges and examine whether institutional reforms aimed at elevating accountability of international bodies are necessary given the new regulatory power these bodies now possess. From an empirical perspective, since in all likelihood randomized experimental studies of international nudges are not on the foreseeable horizon, emphasis should be put on observational studies – both quantitative and qualitative – that may help further our understanding of state decision-making and guide the use of nudges in the international arena.