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INDICATORS AS A TECHNOLOGY OF
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Indicators as a Technology of Global Governance

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Abstract

The use of indicators is a prominent feature of contemporary global governance. Indicators are produced by organizations ranging from public actors such as the World Bank or the US State Department, to NGOs such as Freedom House, to hybrid entities such as the Global Fund, to private sector political risk rating agencies. They are used to compare and rank states for purposes as varied as deciding how to allocate foreign aid or investment and whether states have complied with their treaty obligations. This article defines the concept of an “indicator”, describes how indicators have recently been used in global governance, and identifies various ways in which the use of indicators has the potential to alter the nature of global governance. Particular attention is paid to how reliance on indicators affects the authority and contestability of decisions. The United Nations Human Development Index and the World Bank Doing Business indicators are analyzed as case studies.

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Indicators as a Technology of Global Governance

I. Introduction

The production and use of indicators in global governance is increasing rapidly. Users include public international development agencies such as the World Bank and the United Nations, national governmental aid agencies such as the US government's Millennium Challenge Corporation, global businesses and investors, bodies concerned with assessing or enforcing compliance with existing legal standards such as human rights treaty supervisory bodies, advocacy groups including many NGOs, and various scientific or expert communities. Examples of prominent indicators and their producers or promulgators include: Doing Business Indicators produced by the International Finance Corporation (a member of the World Bank Group); Governance Indicators, including The Control of Corruption and Rule of Law, under the imprimatur of the World Bank; the Millennium Development Goals indicators under UN auspices; the Corruption Perceptions Index created by Transparency International; the Human Development Index produced by UNDP; the Trafficking in Persons indicators produced by the US State Department; and various indicators produced by consultancies specialized in advising investors on political risks. The Office of the High Commissioner of Human Rights at the United Nations is developing indicators for core human rights.

The burgeoning production and use of indicators has not been accompanied by systematic study of and reflection on the implications, possibilities and pitfalls of this practice. As a result, little attention has been paid to questions such as: What social processes surround the creation and use of indicators? How do the conditions of production influence the kinds of knowledge that indicators provide? How does the use of indicators in global governance change the nature of decision-making? How does it affect the distribution of power among and between those who govern and those who are governed? The answers to these questions all have significant normative as well as theoretical implications.

The use of indicators in global governance is widespread and, because of its potential to alter the nature of global governance, worthy of further investigation. This paper proposes an approach to this investigation, starting from the following combination of conceptual claims and hypotheses. Indicators represent a distinctive method of producing knowledge about societies. A particular feature of global governance indicators which compare many different countries is the

way in which they tacitly embody theories about both the appropriate standards against which to measure societies and the appropriate ways in which to measure compliance with those standards. Those theories are generated through dynamic collective processes that differ in significant ways from other political processes. Shrouding these sorts of theoretical claims in an indicator will, depending on various circumstances discussed at greater length below, make them either more or less authoritative and either more or less open to various forms of contestation. Consequently, using any given indicator in global governance involves tacitly accepting both a very particular set of claims about the standards against which societies ought to be evaluated and a particular process for generating those claims. The use of indicators influences not only the kinds of the authority commanded by global decision-makers but also the most effective ways of contesting their decisions.

Part II below sets out both our conceptual claims regarding the defining characteristics of indicators and several hypotheses concerning the general effects of using indicators in decision-making. Part III discusses what we mean by global governance and the idea of using indicators in global governance. Part IV marshals evidence of the use of indicators by five major types of entities in global governance. Part V presents case studies of the United Nations' Human Development Index and the Doing Business indicators which provide some preliminary confirming evidence for several of our hypotheses concerning how the use of indicators can alter the nature of global governance. Part VI concludes.

II. What is an Indicator?

A. Indicators defined

There is no agreed meaning of 'indicator', but for the purposes of our inquiry into indicators as an important emerging technology in the practice of global governance, the concept can be delimited in the following way.

An indicator is a named, rank-ordered representation of past or projected performance by different units that uses numerical data to simplify a more complex social phenomenon, drawing on scientific expertise and methodology. The representation is capable of being used to compare particular units of analysis (such as countries or persons), and to evaluate their performance by reference to one or more standards.

This working definition subsumes indexes, rankings, and composites which aggregate different indicators. Many of the best-known indicators are aggregations (Human Development Index; Consumer Price Index, World Governance Indicators), and the processes and uses of aggregation require some separate consideration, but for general purposes of the project we use the label “indicators” to include all of these.

A key challenge is whether and how to distinguish indicators from other compilations of numerically-rendered data. Indicators rely on statistical information but are not the same as statistics. They represent a second-order abstraction and packaging of statistical information. A census report is not in itself an indicator. But tabulated data from a census used for inter-unit comparison is an indicator. (This holds also if the comparison is of the same unit but inter-temporal.) Indicators are representations of numerical information that evaluate performance with reference to a standard. For the purposes of this project, the focus is on the subset of indicators that are used for evaluation or judgment, and specifically where the indicators are used for decision-making in global governance.

Indicators can also be contrasted with other non-numerical representations of social phenomena. In principle, any given social phenomenon can be represented in multiple ways. For example, the level of respect for the rule of law in a given country in a given year may be represented by an indicator such as a rule of law index. Alternatively, however, it might be represented by a paragraph of text describing patterns of disregard for the rule of law during the relevant period, or by a series of striking photographs or a video recording. All of these representations may purport to capture the same phenomenon. However, only the indicator is likely to rely upon numerical data. The other representations may also vary in the extent to which they simplify the phenomenon, rely on scientific expertise and methodology, or are suitable for use in comparing or evaluating particular units of analysis.

B. Salient characteristics of indicators

Our working definition highlights several features of indicators, including (1) the formality of naming the indicator (and the associated assertion of its power to define a phenomenon such as “the rule of law”), (2) the ordinal structure enabling comparison and ranking and pressure for ‘improvement’ as measured by the indicator, (3) the simplification of complex social phenomena, (4) the ‘scientific’ justification through the use of social scientific

methodology and the claim that the indicator reflects robust underlying data (although, in fact, missing or unreliable data may be fundamental), and (5) the potential to be used for evaluative purposes. We elaborate on the significance of these features in the following paragraphs.

1. Naming the Indicator

The assertion that an indicator has been brought into existence and given life is typically marked by naming it. The name itself is usually a simplification of what the index purports to measure or rank. The name's constancy may mask changes over time in the indicator itself. Calling an indicator a measure of "transparency" or "human development" asserts a claim that there is such a phenomenon and that the numerical representation measures it. An indicator may even create the phenomenon it claims to measure, as IQ tests came to define what intelligence is. Labeling this measure an Indicator, Index, Ranking, League Table, etc implies a claim to knowing and measuring a phenomenon. As a result, the indicator represents a form of power to define the way the world is understood.

2. Rank-Ordered Structure

An indicator need not rank all data points or all units in a transitive way. Influential indicators are usually cardinal (attributing separately defined values to each unit), and most use one or other of a standard menu of scaling methods (e.g. a purely ordinal scale, an equal-interval scale, or a ratio scale), but it is possible to have an indicator which does not have these attributes. However, we regard some element of ordinal ranking as a prevalent and perhaps necessary feature of the indicators we are studying. Some listings with most of the attributes of indicators may merely divide units into categories described nominally, identifying difference without ranking the categories. These do not fall within our definition of an indicator. Other nominal listings may have an element of hierarchy among broad categories (red, yellow, green). These do qualify as indicators for our purposes.

3. Simplification

Indicators depend on simplification. They are often numerical representations of complex phenomena intended to render these more simple and comparable with other complex phenomena also represented numerically. Indicators are typically aimed at policymakers and are intended to be convenient, easy to understand, and easy to use. Yet, the transformation of particularistic knowledge into numerical representations that are readily comparable strips meaning and context from the phenomenon. In this numerical form, such knowledge carries a

distinctive authority that shifts configurations and uses of power and of counter-power. This transformation reflects, but also contributes to, changes in decision-making structures and processes. Simplification (or reductionism) is central to the appeal (and probably the impact) of indicators.

4. Reliance on Scientific Methods

Indicators are based on information produced through systematic counting, often relying on social scientific methods and dependent on statistical and social scientific expertise. In principle, indicators vary in the extent to which they purport to be based on social scientific methods, with some purporting to be based on little more than unscientific hunches or guesses while others claim to be thoroughly scientific. As a practical matter though, we are inclined to ignore extreme cases, of either kind. An indicator with no claim to be supported by any underlying social-scientific data at all would probably not survive long in the market-place of influence, so we discount these in practice. At the other end of the spectrum, even the most highly-resourced social-scientific efforts to collect data on human affairs on a global scale encounter data collection problems of many kinds. (In fact, we believe that the problem of missing data is central to the technology of indicators, and calls for a substantial special study.)¹ Moreover, data collection is expensive and is often fragmented and partial, particularly in countries with limited resources.

5. Indicators as tools for evaluation

We single out indicators from other data based on their potential use in evaluating performance. The standard against which performance is to be measured is often suggested by the name of the indicator—corruption, protection of human rights, respect for the rule of law, etc. To the extent that an indicator is used to evaluate performance against one standard rather than another the use of that indicator embodies a theoretical claim about the appropriate standards for evaluating actors' conduct. Consequently, indicators often have embedded within

¹Data collection is somewhat constrained everywhere, and sharply limited in many countries, both because of the cost of data gathering and because of concerns about what data reveals. For substantial sections of the world, data on certain issues is minimal or non-existent. To give a typical example of UN experience, a UN study found that in 2005 only 59 countries or areas had reported the total number of households from a census and only 42 disaggregated these figures by sex and age of the head of the household (UN DESA 2006: 13, 18-19). Information on household heads was available for only 20% of the world's population and only 6% of the population of least developed countries. The number of first marriages by age of the bride and the groom was reported by only 85 countries or areas, representing 27% of the world population. None of the 50 least developed countries provided this data to the UN (UN DESA 2006: 11, 18-9). Clearly, this lack of data inhibits assessing the extent of female-headed households or of child marriage worldwide.

them, or are placeholders for, a much more far-reaching theory of what a good society is, or how governance should ideally be conducted to achieve the best possible approximation of a good society or good policy. At a minimum they are produced as, or used as, markers for larger policy ideas. They may measure ‘success’ directly along this axis, or they may measure what, from the standpoint of the theory or policy idea, are pathologies or problems to be overcome. More frequently they address simply some measurable elements within a wider scenario envisaged by the theory or policy idea. Often the theory or policy idea is not spelled out at all in the indicator but remains implicit.² Indeed, the theory or idea embedded in an indicator may be primarily that of its users rather than its producers.

C. The consequences of using indicators in decision-making

We hypothesize that the inherent characteristics of indicators—simplicity, ordinality, association with scientific methods, and their reliance on particular types of authority—almost inevitably cause their use to change the nature of decision-making.

1. Reduction in the resources devoted to decision-making

Because indicators simplify information, their use should reduce the burden of processing information in the course of decision-making. In principle therefore, reliance on indicators should reduce the time, money and other resources required to make decisions.

The cost-benefit attractions of relying on indicators are particularly pronounced when the factors required to create and use high-quality indicators—namely numerical data and information processing technology—are readily available. We hypothesize that the use of indicators is linked to the increasing accessibility of social and economic statistics, the ever-declining cost of computing, as well as improvements in and dissemination of statistical techniques. In fact, the quality of indicators may actually be a function of the total supply of indicators because some indicators are arguably most useful when aggregated with other similar indicators (Kaufmann, Kraay, Zoido-Lobaton 1999). This raises the intriguing possibility that the use of indicators may be a self-reinforcing phenomenon: as more indicators are produced,

² The use of numerical information to understand the world reflects the creation of what Mary Poovey calls the ‘modern fact’ as a form of knowledge. (Poovey 1998: xii). Numbers have become the bedrock of systematic knowledge because they seem neutral and descriptive. The reality that numbers are not free of interpretation but instead embody theoretical assumptions about what should be counted, how to understand material reality, and how quantification contributes to systematic knowledge about the world, has been obscured. It is a distinctive feature of modernity that numbers appear as an objective description of reality outside interpretation. (Poovey 1998: xii).

aggregations of indicators become more reliable, more indicators are used, more indicators are produced, et cetera. Greater supply of indicators also influences the ecology of indicators, with comparisons among them enabling selection of the most robust and reliable, and possibilities of continuous improvement.

It also seems plausible that reducing the costs of decision-making becomes more attractive (sometimes even imperative) as the amount of decision-making to be done increases. Consequently, we hypothesize that reliance on indicators in global governance is associated both with developments such as increases in population and levels of economic activity, which in turn determine the scale and intensity of social and economic interactions susceptible to governance, and with specific institutional developments affecting the nature and the supply of governance decision-making.

2. Transparency

The simplicity of indicators makes it relatively easy to communicate them to third parties. This is significant whenever an effort is made to give third parties access to the informational basis for a decision; it should be relatively easy to communicate the basis for a decision based on indicators. In this sense, decisions based on indicators are expected to be, *ceteris paribus*, relatively transparent. In some contexts transparency serves to increase the legal or moral authority of decision-making.

3. Consistency

To the extent that indicators provide unequivocal ordinal data, increased consistency in decision-making is a likely outcome of the use of indicators. Like transparency, consistency also tends to increase the legal or moral authority of decision-making in some contexts.

4. Authority

Since indicators claim to be based on scientific expertise, decisions based on indicators tend to command scientific authority. In other words, the influence on behavior of a decision based on indicators may be enhanced by its scientific authority, over and above the influence attributable to the economic effects of the decision, the decision-maker's legal authority, or the decision-maker's inherent expertise or moral authority.

Indicators are also authoritative because of their simplicity. Wendy Espeland and Mitchell Stevens identify this as a potential consequence of what March and Simon refer to as uncertainty absorption, which "takes place when inferences are drawn from a body of evidence,

and the inferences instead of the evidence itself, are then communicated.” (1958:165). As Espeland and Stevens describe this process, “‘Raw’ information typically is collected and compiled by workers near the bottom of organizational hierarchies; but as it is manipulated, parsed, and moved upward, it is transformed so as to make it accessible and amenable for those near the top, who make the big decision. This ‘editing’ removes assumptions, discretion and ambiguity, a process that results in ‘uncertainty absorption’: information appears more robust than it actually is...The premises behind the numbers disappear, with the consequence that decisions seem more obvious than they might otherwise have been. An often unintended effect of this phenomenon is numbers that appear more authoritative as they move up a chain of command. The authority of the information parallels the authority of its handlers in the hierarchy.” (2008: 421-2). The degree of uncertainty beneath the surface of many of the most influential simplifying indicators in global governance is quite intensively scrutinized, but usually only in specialized scientific literature (Hoyland, Moene and Willumsen, 2009; Hood, Dixon and Beeston, 2008).

5. New standard-setting processes

The social scientific methods used to produce indicators tend to involve distinctive social processes. Although those processes ultimately result in the production of standards against which societies are measured, they do not necessarily resemble other more politically explicit standard-setting processes. Political efforts to formulate norms and standards tend to involve processes such as voting or interest-group bargaining or the exercise of raw power. By contrast, producing, accepting and supporting the standards embedded in indicators engages social processes more typically associated with the derivation of power from scientific knowledge. What we know about those processes suggests that they are shaped by both technical factors, such as the statistical properties of an indicator when compared to other indicators, and social factors, such as social networks, perceived expertise, relational interactions, institutions and allies (Latour 1987: 29). These processes are collective and take place over time; we expect that it will typically be possible to trace ‘scientific’ acceptance of an indicator back to a time before ‘public’ knowledge is settled about the issue through various controversies and challenges. This process of wider public acceptance will occur as networks of actors and institutions adopt the indicator and consequently increase its credibility and legitimacy, perhaps even converting it into a standard against which other indicators are evaluated. In many cases it appears that indicators

not only depend on, but also help construct, social networks that reinforce certain knowledge claims and contest others. A survey we conducted of reporting about four major indicators—Human Development Index, Transparency International’s Corruption Perception Index, Freedom House’s Freedom in the World indicator, and the World Bank’s Doing Business Index—in three major US and UK opinion-shaping newspapers and magazines suggests that in the first year or two after an indicator is released, there is discussion and debate about the indicator itself, but after a few years, the indicator is presented simply as a fact that describes a country’s situation, with virtually no discussion about the source of the data or the nature of the indicator itself.³

6. Impediments to contestation

Contestation can take the form of debates about the numbers used in indicators, the criteria for the indicators, or about the embedded social and political theory of the indicator. Contestation strategies can include the creation of new indicators, and resistance to or discrediting of existing indicators and their producers or users. This may in turn prompt modifications to the indicator, or counter-strategies by producers and users.

Because they obscure the socio-political theoretical claims embedded in their construction, indicators make it relatively difficult to contest the use of those theories in global governance. Indicators may also conceal missing areas of data, partial data, or the underlying elements of composite indicators. However, those with special expertise in the construction or analysis of indicators can overcome these impediments to technical contestation and exercise greater influence than they could in purely political settings. Limitations in the ability to contest the exercise of power by global decision-makers tend to shift the balance of power toward to ‘technical’ experts, that is to say, people with expertise in the construction or analysis of indicators.

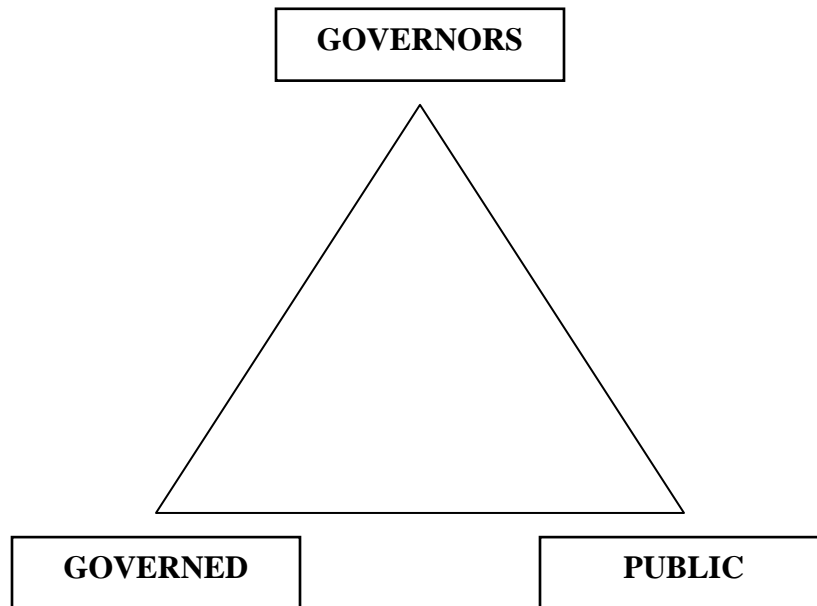
III. What does it mean to use indicators as technologies of global governance?

A. Sources of authority in global governance

Governance can be modeled using a standard triangular schematic which posits relations between the actors who rely on various forms of authority to exert influence over the conduct of

³ This survey examined news stories in the *New York Times*, the *Washington Post*, and the *Economist*. The first two are standard-setting American newspapers and the third is an internationally circulating British publication. It compared news coverage for the first year after the four indicators were created with news coverage in 2004 and 2009. We thank Jessica Shimmin for work on this.

other actors (the governors), the actors subject to governance (the governed), and other interested constituencies (the public). (See e.g. Ayres and Braithwaite 1992; Abbott and Snidal, 2009.) In the context of global governance the governors include five basic categories of actors: formal inter-governmental organizations; inter-governmental networks and other less formal arrangements; hybrid public-private entities; private entities; and States, including particular



national agencies. The governed will typically be those legal entities or officials whose behavior is specifically assessed, or the leadership and governing agencies of the particular country. The public may be popular or elite political constituents of the governor or the governed, including the media and oppositional groups.

Governors exert their influence through many different forms of authority. In some cases their power is based on *economic authority*. By economic authority we mean the authority to allocate material resources. In other cases governors exert their influence through *legal authority*, by which we mean the ability to assign legal rights and duties. In some cases the power of governors is based on their *scientific authority*, in that their influence over the conduct of other actors stems from their perceived expertise in a particular domain. Finally, governors sometimes rely upon *moral authority*, which derives from their perceived moral stature. There

are often overlaps among these four categories of authority. We will focus in our overall typology primarily on governance involving economic or legal authority.

The authority of the governors can be and often is contested by the governed. Contestation can take many forms, ranging from deliberate non-compliance, to litigation, to behind-the-scenes lobbying, to voting. Moreover, the public can play an important role in determining the amount of authority that governors exercise over the governed and the opportunities for contesting that authority. For instance, funds contributed by the public might be the source of economic authority, and legal authority might be derived from the results of democratic elections. Less obviously, scientific authority might be conferred by members of the public scientific community, and moral authority can be conferred by members of the relevant public moral community.

B. Changes wrought by indicators in global governance

What roles do indicators play in global governance?

First, indicators may be a means for directly exercising an existing form of power or authority over the governed. In the most straightforward cases the indicator is promulgated by one actor—meaning that the actor’s name and imprimatur is attached to the indicators—and then used by that actor and other comparable actors in the same sector to make economic or legal decisions affecting the governed. For example, the World Bank promulgates indicators that are used by both the World Bank itself and other organizations in deciding how to allocate aid. A more subtle case arises where the promulgation of the indicator spurs behavior by the governed (e.g. the governments countries listed), through motivating demands for particular policies by political constituencies or through affecting suppliers of third-party benefits such as prospective foreign investors. For instance, the World Bank claims that it has prompted many countries to reform their legal systems simply by promulgating its country-level indicators on the ease of doing business, and the same view is held by many critics of the Bank (Benjamin and Theron, 2009). The World Bank’s power is thus linked to acceptance of its claims to expertise in the identification of important institutional considerations in national governance and in assessment of institutional quality; in this respect the publication of these indicators can be understood as the exercise of scientific authority.

Second, use of indicators as a technology of governance means that actors who promulgate indicators can come to be among the governors—that is, to be actors whose decisions either directly or indirectly exert a meaningful influence over the conduct of others—even if they otherwise would not be, or would be only to a lesser extent. Thus indicators help constitute or embed power relations. Simple producers of indicators used in global governance, or actors whose decisions have a significant impact on its form or content, may exercise power even where they are not the formal promulgators or users of the indicator.

Including producers of indicators in the class of governors does not mean that tracing the strands of agency and power relations is necessarily straightforward. The production of the indicators used in global governance is often a collective process. In many cases promulgators attach their names to indicators whose production involves contributions from a number of other actors. For example, reports and rankings for the Programme of International Student Assessment (PISA) are promulgated by the OECD, but are actually prepared and produced by an Australian consultancy under a contract with the OECD. Moreover, the promulgators of indicators typically rely on data collected by a large network of independent actors stretching from international agencies, to national statistical agencies, local and national NGOs, to villages and local communities. They also rely upon analytical techniques generated by some segment of the scientific community. Consequently, the promulgator of an indicator may or may not be the actor most involved in determining its content. Instead, the promulgator is often more like the ‘manufacturer’ of an athletic shoe, whose main contribution is to lend its brand name to the collective product of a global supply chain.

Third, the use of indicators as a technology of governance has significant implications for roles that various members of the public play in indicator-related global governance. For instance, we conjecture that the transparency of indicators allows a relatively broad segment of the public to play a significant role in determining the nature and extent of the indicator-specific authority possessed by actors who use indicators as a technology of governance. For example, when the United States State Department publishes its indicators of countries’ compliance with anti-trafficking standards, these can be read by activist groups who may influence economic agents such as prospective tourists in Toronto, just as easily as they can be read by government officials in Belize (a country placed on the ‘watch list’ in 2009). Learning from activists of Belize’s low score may lead a Toronto resident to alter her perceptions of Belize. Moreover her

travel decisions, in combination with the decisions of other members of the public, may have a material effect on Belize's tourism revenues. Thus, the extent to which the public's decisions are affected by the anti-trafficking indicator is in part an expression of the State Department's authority as a mediator of moral assessment.

The use of indicators in global governance also enhances the role played in global governance by the subset of the public that comprises the watching scientific community. The scientific community determines the scientific authority of an indicator, and producers of indicators are well aware of this fact. For example, Kaufmann and Kraay assert that their World Governance Indicators are more reliable because they are published in scientific journals and peer-reviewed ("Governance Indicators" p. 32, 1999).

Fourth, the use of indicators as a significant technology in global governance has effects on contestation and strategy among a mixture of the governed and the public (categories which in practice overlap). The technology of indicators has effects on who contests the exercise of global authority and how this contestatory role is performed. A great deal remains to be learned about when, how and why the governed contest exercises of authority that involve the use of indicators, but it takes both general and long-established forms such as lobbying and litigation as well as distinctive forms that are especially suited to changing or resisting governance through indicators, such as refusal to participate in data collection, challenges to scientific validity, or creation of alternative indicators.

One example of contestation was the campaign of a transnational group of workers' representatives (spearheaded by the International Trade Union Confederation), together with the International Labour Organization, several key figures in the US Congress, and a range of academics and NGOs, to achieve significant change in the use of the World Bank's Employing Workers indicator (ILO 2007; Parks 2008; Bakvis 2009). The activists complained that the indicator was biased in favor of labor market deregulation and so was being used by international financial institutions to pressure developing countries to dismantle protections for workers. Their efforts involved both direct communications with the international financial institutions as well as actions at the national level. In the United States, labor even succeeded in securing passage of legislation directing the Secretary of the Treasury to use his influence over the World Bank to effect change (Supplemental Appropriations Act, 2009, s. 1626). In April, 2009 the World Bank agreed that it would stop using the controversial indicator in its Country Policy and

Institutional Assessments which affect decisions about the allocation of funds, begin revising the indicator to give more favorable scores to certain worker protection policies aligned with ILO Conventions, and establish a Consultative Group to formulate a new worker protection indicator (World Bank, 2009a). As this example and the case studies below indicate, the governors are typically cosmopolitan elites from the global North while the governed are generally the developing countries of the global South (Benjamin and Theron, 2009). Thus, the indicators are part of a far larger regime of global inequality and management. Actors in more powerful positions have greater capacity to contest indicators, as the above example illustrates.

IV. How widespread is the use of indicators in global governance?

It is conjectured that the ratio of narrative material to quantitative material used in some key areas of global governance has declined, at least in terms of authority, over the last thirty years. But it is also clear that not everything that might be expressed quantitatively is in fact turned into a significant indicator. For example, debates around efforts to prevent genocide use narratives and photographs of atrocities, but not a genocide indicator. The United States State Department in its Trafficking in Persons Reports use a combination of indicators, photographs and narratives (United States Department of State 2008, 2009). Freedom House uses a combination of indicators, narratives and maps in its annual Freedom in the World reports (Freedom House 2009).

A systematic analysis of the extent to which various actors rely on indicators as opposed to other technologies in global governance is not undertaken here. However, in the following sections we show that indicators are promulgated by organizations in each of the five principal formal categories of actors wielding governance authority with global reach (Kingsbury, Krisch & Stewart, 2005), and that those indicators are often used, by either their promulgators or other actors, as part of the exercise of some form of authority. This suggests that the use of indicators in global governance is not only a significant phenomenon, it is one in which a very wide variety of actors participates.

A. Formal inter-governmental organizations

- The International Development Association—the branch of the World Bank responsible for providing financing on a concessional basis—uses an internally promulgated indicator of the quality of countries’ policies and institutions as the single most important factor in

determining the allocation of aid across eligible countries (the other factors being population, Gross National Income per capita and the recent performance of World Bank projects in the country). That indicator, known as the Country Policy and Institutional Assessment (CPIA), assesses countries on the basis of 16 criteria, which fall into four subcategories: economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions. The final category, public sector management, is also known as “governance.” For each of the 16 criteria, a country is given a score ranging from 1 (low, or weak) to 6 (high, or strong) (World Bank 2010). Other international financial institutions have created similar indicators for similar purposes (IFAD 2003, 2006, 2008).

- The Office of the United Nations High Commissioner for Human Rights (OHCHR) in 1999 initiated a project to develop indicators for major human rights in response to requests from the chairpersons of the treaty bodies monitoring major human rights conventions (see UN Docs HRI/MC/2000/3: 6-9). A series of workshops sought to develop indicators for 12 human rights including the right to life, the right to adequate food, the right to judicial review of detention and the right to health. The project also worked on cross-cutting indicators on violence against women and non-discrimination. The OHCHR indicators are separated into structural indicators that reflect the ratification of legal instruments, process indicators that assess state policies to promote the right, and outcome indicators to assess realization of the right (Malhotra and Fasel 2005: 22-28; UN Doc HRI/MC/2006/7: 7). The indicators are not meant to replace qualitative reports: they are only one part of the reporting and monitoring process. The 2005 expert group meeting emphasized the value of a coordinated set of indicators, but stressed that indicators are to be used only in the early stages of the process of compliance assessment and are not for either ranking or for shaming. They emphasized using indicators to compare a country’s performance over time rather than against that of other countries and that they are intended to improve processes of reporting by states parties and monitoring by treaty bodies (Turku report 2005: 7). This initiative is controversial, but is receiving increasing support among human rights experts (Rosga and Satterthwaite, 2009).

B. Inter-governmental networks

- The OECD is established by inter-governmental treaty, but much of its operation is through networks of government officials (often also including industry, NGO, and academic or other

specialist participants). The OECD is a major and influential producer or promulgator of indexes ranking member countries and in some cases non-member countries choosing to participate. For instance, the Programme of International Student Assessment (PISA) of schoolchildren, has influenced national education policies by changing agendas, influencing the available knowledge base, and making it easier for the media to hold national policymakers accountable for poor outcomes (Bogdandy and Goldmann 2008).

- The OECD uses internally produced country risk indicators in setting the minimum rates government agencies may charge to their exporters as risk premiums for export credit guarantees under the OECD Export Credit Arrangement (OECD 2009).

C. Hybrid public-private entities

- The Global Fund to Fight AIDS, Tuberculosis and Malaria is an international organization structured as a Swiss Foundation, whose Board includes representatives of donor and recipient country governments, private businesses, philanthropic foundations, and organizations of persons affected by these diseases produces a set of key performance indicators, which cover the operational performance of its own secretariat, performance under grants (measuring the results achieved under each grant made by reference to a target), effects on sustainable health systems in countries receiving Global Fund financing, and overall impact of Global Fund and other activities in fighting the three specified diseases and achieving the relevant Millennium Development Goals. These indicators are used both as an internal management tool and in influencing Global Fund decisions affecting other actors. For example, for 2009 the Global Fund sought to ensure that 30% of funds went to grants with civil society organizations as the implementers, and to ensure that at least 40% of grant funds with governments as the principal recipients were listed in national or health sector budgets (up from an earlier baseline of 23%). The Global Fund uses output indicators in performance-based funding, and alerts grantees that “Outcome and impact data is increasingly important to the Global Fund in its decisions to continue grant funding beyond Phase 2 of a program.”⁴

⁴ Global Fund website, page on Decision-making, sub-section on Using indicators in performance-based funding, <http://www.theglobalfund.org/en/performancebasedfunding/decisionmaking/?lang=en> (last visited March 13, 2010.)

D. Private entities

- Freedom House, a US NGO, has produced its Freedom in the World index since 1972, and its Freedom of the Press Index since 1979 (Freedom House 2009).⁵ They are published together with narratives that justify the scores for each country. These are 2 of the 6 indicators used by the MCC to measure the extent to which countries are “ruling justly”. In order to be eligible for MCC funding countries must score above the median on at least 3 of the 6 indicators (Millennium Challenge Corporation 2009). Consequently, it is worth noting that the Freedom House indicators also form significant components of 3 of the other indicators used by the MCC to measure “ruling justly”, namely the World Bank Institute’s “Voice and Accountability,” “Rule of Law” and “Control of Corruption” indicators (Kaufmann, Kraay & Mastruzzi 2009: Table A17).⁶
- Transparency International is the promulgator of the Global Corruption Barometer, based on household surveys covering the household’s experiences with petty bribe-paying and perceptions of corruption, and of the Corruption Perceptions Index which aggregates data from several sources. Transparency International’s indicators are used by a variety of decision-makers. For example, the Global Corruption Barometer is a component of the World Bank Institute’s “Control of Corruption” index which, as noted above, is one of the MCC’s “ruling justly” indicators (Kaufmann, Kraay & Mastruzzi 2009: Table A13). From TI’s standpoint, one role of its indicators is to help empower, or spur the creation or growth, of new local chapters of TI.
- Political Risk Services, a for-profit entity, produces a Political Risk Index based on 12 political and social variables (Political Risk Services 2009). Political Risk Services claims that its products are designed to be used by investors in deciding where to invest and what risk premiums to charge. In addition, one or more Political Risk Services sub-indicators forms a component of each of the World Bank Institute’s governance indicators (Kaufmann, Kraay & Mastruzzi 2009: Table A28).

⁵ The Freedom House website provides data from 1973 and 1980 respectively.

⁶ The Freedom House indicators were combined and assigned weights of 0.19, 0.137 and 0.241 respectively in the 2008 editions of these indexes. In each case these appear to be the heaviest weights assigned to any single indicator (Kaufmann, Kraay & Mastruzzi 2009: Table 3).

E. States (including particular national agencies)

The United States has, more so than most other states and the EU, operated its own evaluation systems of the countries of the world across many dimensions, often tied to potential performance inducements (sticks or carrots) structured by US legislation.⁷

- The Trafficking Victims Protection Act adopted in 2000, renewed with changes in 2008, requires the Secretary of State to report to Congress every year on foreign governments' compliance with minimum standards of anti-trafficking activities. Although the UN adopted a protocol against human trafficking in 2000, it had limited monitoring mechanisms. Kay Warren argues that the US State Department "moved into this vacuum" with its annual trafficking reports (Warren 2007: 266). It has published an annual *Trafficking in Persons Report* since 2001 ranking non-US governments into three tiers depending on their efforts to comply with the standards and criteria of US legislation. A tier two "watch list" was added as a fourth category. A GAO study claims that these reports have increased global awareness of the problem and raised the risk of sanctions for governments who fail to make significant efforts to comply. However, it also notes that country reports do not explain how the standards were applied to these countries, reducing their credibility. It advocates more clearly documenting the rationale and support for the tier rankings in order to improve its usefulness (GAO 2006:3-4). A 2007 GAO study recommended better evaluation and monitoring of anti-trafficking projects, including developing indicators, and an expert meeting recommended better approaches to quantifying victims (GAO 2007: 3-4). The 2008 reauthorization act called for performance indicators for anti-trafficking programs (Sec 107A), an integrated database quantifying the number of trafficking victims to be established by 2010 (Sec 108), and attention to countries on the Special Watch List for two consecutive years (Sec 107). Thus, the reauthorization act advocated the increased use of numerical

⁷ We can also imagine other ways in which indicators might be used by legal decision-makers. For example, judges in domestic courts might rely on indicators in deciding whether to dismiss a case on the grounds of *forum non conveniens*. A central issue in many of these proceedings is whether there is a suitable alternative forum, namely whether a foreign court with jurisdiction has sufficient competence and integrity to adjudicate the dispute fairly. A judge might decide to resort to indicators of judicial quality and corruption for guidance in resolving these questions. Another context in which indicators could be used is in the adjudication of individuals' claims that they are entitled to refugee status or asylum. In those proceedings the central issue is whether the individual has a well-founded fear of persecution and information about general conditions in the individuals' home country is relevant to that determination. Indicators of, for instance, respect for minority rights, could conceivably be used for these purposes.

indicators for monitoring trafficking and anti-trafficking programs. These indicators are connected to the application of sanctions for low rankings.

C. Summary

The typology of uses of indicators in global governance can be summarized in a five by two matrix (Table 1). However, the neatness of this matrix should not obscure the fact that some actors exercise several forms of authority in their different capacities. For instance, the World Bank exercises economic authority to the extent that it allocates aid, legal authority to the extent that it makes findings in response to allegations of corruption in public procurement, as well as scientific and moral authority to the extent that it professes to be expert in and morally committed to the cause of promoting development.

Table 1

Promulgator Use	Formal IGO	IG Network	Hybrid P-P	Private	Single State
Use in Allocating Resources	IDA	OECD Arrangement	Global Fund to Fight AIDS, TB, Malaria	Political Risk Services	
Use in Assessing Compliance with Legal Standards	UNHCHR proposed indicators				US State Dept (Trafficking)

V. Regulatory Implications

The exercise of power in global governance beyond the state is increasingly the subject of efforts to channel, regularize and control that power. Insofar as this power depends on claims to authority, it is subject to challenges and contestation, leading to attempts to buttress the broad acceptance or legitimacy of that exercise of authority. One approach to the legal structuring and control of power and authority in global governance is in the theory and practice of the emerging field of global administrative law (Kingsbury, Krisch and Stewart, 2005). Other approaches focus on distinctively public elements in the assertion of public authority in governance by

bodies outside the state, and seek to subject these assertions of authority to general principles of public law. (Kingsbury 2009; Bogdandy 2009.)

The use of indicators as a technology of global governance is a particular form of governance by information (Bogdandy and Goldmann, 2008). The production, promulgation and use of information is a governance activity that in certain circumstances may raise issues concerning public law principles of transparency, participation and review, or private law principles of contract and tort liability, or political principles of accountability. Producers, promulgators and users of indicators may thus be subject to some of the same demands now made, for example, in relation to the work of credit ratings agencies. Such demands in relation to indicators have so far been limited, but they may intensify and become more common in certain sectors or where certain classes of actors or decisions are involved.

Some *producers of indicators* could be subject to scrutiny (although not necessarily legal obligations) with reference to human rights standards, domestic constitutional norms, and principles of global administrative law. Others may be regulated in the same ways as private actors such as multinational corporations or networks of firms linked by transnational supply chains. These analogies suggest also the possible relevance of regulatory mechanisms such as competition law, transnational tort claims and self-regulation. Procedural obligations on producers might require them to be transparent about the methods used to produce indicators and their limitations, to allow interested parties to participate in some way in the design process, and or to accept some accountability in problematic cases for effects on external actors. Alternatively, producers might find their indicators held to externally administered standards of reliability and validity. Finally, structural interventions might be designed to foster healthy competition among producers. So, for example, public bodies might subsidize the production of competing indicators, or certain organizations who exercise other substantial powers as governors might be encouraged to refrain from *promulgating* indicators.

Controlling the use of indicators as a technology of governance by intervening in their production or private promulgation is a novel prospect requiring careful consideration: it may prove to be impractical, or in some cases undesirable. The collective nature of the indicator production process makes it difficult to target procedural or substantive requirements. In addition, the fact that indicators are often used in combination with one another suggests that controls applied to only a subset of the indicators produced will not necessarily have normatively

valuable impacts on overall use of indicators. The fact that many indicators are substitutes for one another has similar implications.

Recognition of indicators as a technology of governance may turn out to have more significant implications for policy interventions aimed at others involved, namely: those who use indicators in the course of decision-making, members of the public who confer authority upon those users, and the actors governed by those who use indicators. For example, it may well be fruitful to educate users of indicators, and the members of the public who confer authority upon them, about both the costs and benefits associated with using indicators. Alternatively, policymakers could focus on giving those who are governed by actors who rely upon indicators, access to the scientific expertise they need to contest decisions based upon indicators.

Behind these questions of regulatory and policy strategy lie more fundamental normative questions about the roles of collated information, rankings, and their associated incentive structures, in different social and political contexts. Addressing these in relation to global governance, with severe inequalities of power, technical expertise, and participatory capacity as well as radical heterogeneity of values and political commitments, raises vast problems.

VI. Case Studies

As we have argued, indicators are forms of knowledge produced through a social process in which individuals embedded in institutions conceptualize the indicator, collect or pull together existing data, and develop and name the measure. Each promulgated indicator carries one or more forms of economic, legal, scientific, or moral authority. Clearly, some are more popular and persuasive than others, and many never reach the level of any general public awareness. In order to probe the process of formulating (producing) an indicator and launching (promulgating) it, we offer two case studies of relatively successful indicators, examining by whom and where they are produced. These are both widely disseminated indicators, appearing in influential public media such as the *New York Times* or the *Economist* magazine.⁸ One of the indicators was produced by the UN, the other by the World Bank, so both come from international

⁸ The HDI and HDR Media Analysis by the Human Development Report Office of the UNDP of global media news and opinion coverage of the Human Development Index for October 5 to November 4, 2009, the period after its global launch for that year, found 208 articles, referring primarily to a country's ranking (90%), usually compared with its neighbors. Almost two thirds gave some definition of the HDI (60%). About half of the articles covered the top and bottom rankings. This survey covered publications in English, French, Spanish, Portuguese, Italian, and Russian.

organizations. In each case, the proponents are powerfully positioned within an important international agency which is a major consumer of the indicator.

A. The Human Development Index

The story of the creation of the Human Development Index (“HDI”) illustrates many of the characteristics of indicators discussed above. It shows how the creation of an indicator is a protracted process involving networks of scholars and policy makers who develop a new theoretical approach, create a shorthand numerical measure for their theory, and use existing data to form rankings. In turn, the indicator helps to expand the impact of the theory.

Promulgated in 1990 to contest and perhaps displace GDP per capita as the measure of development, the HDI expresses the theory that social and economic development are inextricably related and need to be considered together. Development consists of both social and economic factors, not just income growth. Thus, the index articulated a new theory of development. Instead of focusing only on growth in gross national product, this indicator combines economic and social factors in what is called a “capabilities” approach that emphasizes ends, like a decent standard of living, over means, like income per capita. Following Amartya Sen’s capabilities approach, it measures access to health, education, and goods that give individuals the capacity to achieve their desired state of being (Stanton 2007: 3; Sen 2003). Advocates have made innovative use of the HDI to attract the attention of policy makers, finding it particularly effective for advocacy and policy analysis.

The HDI combines proxies for three human capabilities: longevity, knowledge, and a decent standard of living. Longevity is represented by life expectancy at birth; knowledge by adult literacy and mean years of schooling, weighted 2/3 to literacy and 1/3 to schooling; and a decent standard of living by GDP per capita based on US dollars and purchasing power parity (PPP) adjusted to eliminate differences in national price levels (Haq 2001: 129). It is measured by a cut-off point defined as an income level regarded as adequate for a reasonable standard of living and reasonable fulfillment of human capabilities. It comes from the current global average real GDP per capita in PPP dollars. These three measures are given equal weight and averaged together.

The HDI, and the Human Development Reports which included it, were developed by a key UN development agency, the UNDP. It grew out of almost thirty years of work and thinking

in the field of development economics and represented a significant shift from a focus on utility to a focus on welfare. The impact of global events, the rise of the human rights movement, new concerns with gender inequality, all contributed to the change in theoretical orientation. Efforts to produce welfare-focused indicators began in the 1960s along with a critique of the dominant focus on growth in GDP since this measure neglected issues of employment, income distribution, jobs, and justice (Streeten 2003: 94). In the 1970s, there was increasing interest in a “basic needs” approach. By the 1980s, however, the basic needs approach seemed too narrow as new concerns arose about women and children, the physical environment, human rights, political freedom and governance, and the role of culture. New theories of economic growth focused not on technological progress alone but also on the behavior of people, highlighting the importance of education and knowledge for productivity. Amartya Sen proposed an approach that expanded the basic needs idea by emphasizing the importance of freedom to choose as the basis for well-being. He argued that a standard of living should be judged by a person’s “capability” to lead the life that he or she values, from being well-fed and healthy to achieving self-respect and participating in the life of the community (Streeten 2003: 94-100). The capabilities approach formed the theoretical basis for the HDI. The indicator provided a shorthand mechanism for expressing the changed theoretical orientation.

The development of the HDI was an institutional process as well as an intellectual one. Although the HDI was promulgated by the UNDP, a small group of elite development economists served as advisors to the agency. The principal architect of the concept, Mahbub ul Haq, had experience in the World Bank, while the advisors held academic positions at Oxford, Cambridge, London School of Economics, Yale, and Boston University (Fukuda-Parr and Kumar 2003: 85-91 and 393-5).⁹ The creators and consultants behind the HDI came largely

⁹ Mahbub ul Haq was an economist trained at Government College, Lahore (1948-53), King’s College, Cambridge (1953-55), and Yale University (1955-57). He was Chief Economist of the Pakistan Planning Commission, Director of the World Bank’s Policy Planning Dept (1970-82), and Planning and Finance Minister in Pakistan’s Federal Cabinet (1982-88). From 1989 to 1995 he served as Special Advisor to the Administrator of UNDP and chief architect of the Human Development Reports. In 1995 he set up the Human Development Centre in Islamabad. A second major contributor was Amartya Sen, who developed the capabilities approach. He says Mahbub was one of his closest friends since their undergraduate days in Cambridge and describes him as his extraordinary friend (Sen 2003: viii). Sen himself was born in Dacca, educated in Calcutta, and was variously Professor of Economics and Philosophy at Harvard University, and Professor at Oxford, London School of Economics, and Delhi University. He was awarded the Nobel Prize in Economics in 1998, and served as president of the American Economic Association, Indian Economic Association, Development Studies Association, and Social Choice and Welfare Society.

from the UK, India, Pakistan, Europe, and the US. They came from prominent academic institutions as well as the World Bank and the UN.

Those who create indicators are fully aware that they are simplifications, that they represent only certain features, and that they are designed to persuade. For example, Amartya Sen calls the HDI a “deliberately constructed crude measure,” but notes that its creator, Mahbub ul Haq, “... did succeed in getting the ear of the world through the high publicity associated with the transparent simplicity of the HDI as an index. But it is extremely important not to read more into the HDI than is there.” (2003: x). Sen was one of the principal consultants on the Human Development Report of 1990, which first presented the HDI, and he at first objected to a crude composite index like the HDI, since there was so much other information in the report that was not included. Haq replied, “We need a measure of the same level of vulgarity as GNP – just one number- but a measure that is not as blind to social aspects of human lives as GNP is.” (Stanton 2007: 14, quoted in UNDP 1999: 23; see also Haq 2003). Sen also thought that using constant weights for the three constituent elements was an oversimplification. This example suggests that those who produce indicators recognize the importance of the aesthetics of indicator construction and face the necessity of sacrificing complexity and qualification for simplicity. An indicator is a form of art designed to persuade.

Indicators are fundamentally pragmatic representations in which inaccuracy and unreliable comparisons are balanced against ease of comprehension, ease of communication, authoritativeness, and the overall goal of promoting a particular theoretical perspective. At the same time indicators are modes of persuasion that depend on unannounced theoretical compromises. Sen says that Mahbub was impatient with theory. He created a broad vehicle that accommodated many theoretical approaches but did not necessarily resolve their differences. He wanted a practical accord, not conceptual agreement and was always ready to revise (Sen 2003: ix). Critics of the HDI have variously argued that it is conceptually unsound, has poor data, uses the wrong indicators, uses the wrong formulas for calculations, is wrong in the way the constituent parts are weighted, and has a simplistic methodology. Nevertheless, defenders say it is straightforward and easy to comprehend and that the even weights are in practice not too different from those generated by multivariate systems (Stanton 2007: 19). In commenting on all the suggestions made to add to or expand the HDI, Haq acknowledges the limited range of behavior the HDI covers but reasserts the value of a single composite index rather than many

separate ones, arguing that “busy policy-makers cannot absorb a host of separate social indicators pointing in all directions. For any useful policy index, some compromises must be made. But such compromises must not sacrifice the professional integrity of the broad picture that the composite index intends to convey (2003: 136).” The index, he claims, is a useful measure for some policy purposes, but should be supplemented by other, more detailed socioeconomic indicators.

The story of the HDI also suggests that political acceptability is an important factor both in determining the success of and influencing the construction of an indicator. For example, in 1992 the producers of the HDI created a political freedom index (“PFI”) because there were concerns that the existing measure did not address civil and political freedoms. The PFI consists of five measures: personal security, rule of law, freedom of expression, political participation, and equality of opportunity and included data on 102 countries. PFI did not rank countries but provided aggregates for high, medium and low countries by HDI, income, and industrial vs. developing world. However, it was dropped the next year “for diplomatic reasons”: It had generated too much political heat (Fukuda-Parr and Kumar 2003: xxvii).

Political acceptability has also influenced the construction of the HDI itself by influencing the availability of data. The HDI uses the nation as the unit of analysis, as do many global governance indicators. The index ranks countries according to their HDI scores. Yet, it is clear that countries differ significantly internally and have considerable inequality, particularly in incomes by region, ethnicity, gender, and other factors. There are efforts to disaggregate by income, gender, ethnicity, and geographical region in the Human Development Reports. Haq notes that the disparities by gender and ethnic group can be shocking, and when countries see their HDI rankings decline as a result, there is controversy and sometimes new policy activity (Huq 2003: 133). He also notes that some countries are reluctant to collect data that would expose such inequalities (2003: 133). Fukuda-Parr, Raworth, and Kumar observe that disaggregated HDI data is desirable but not easy to get at subnational and local levels for many of the indicators, such as life expectancy at birth. It may also be unreliable because of administrative practices in the reporting contexts, such as school enrollments, which tend to be exaggerated in many countries of South Asia (2003: 180). Haq acknowledges that the methodology he adopted for the HDI is based on “certain pragmatic considerations of political acceptability” (Haq 2003: 129).

Although there are still debates and critiques of the HDI's methods, categories, weighting system, and data, it has acquired some stability, as did the measure of GDP per capita for the previous fifty years. New indicators such as the Gender Development Index of 1995 and the human poverty index have been created alongside it.

An analysis of media reports about the HDI focusing on English-language publications indicate that references to the HDI have increased during the 2000s and that these references typically refer to the HDI as a factual description of a country. In contrast, media reports from the early 1990s focus on the nature of the index itself and its credibility. It appears that over two decades, journalists came to see the HDI as a convenient shorthand for describing a country.¹⁰

Its creators attribute the survival of the HDI to its sound methodology, its policy relevance and support by policy makers, and its acceptability. They highlight its conceptual clarity, its reasonable level of aggregation, its use of universal criteria amenable to inter-country comparisons, and its use of standardized international data legitimized through official processes (Fukuda-Parr et. al. 2003: 184). As this example indicates, the development of a “settled” indicator is a political and social process that involves networks of elite scholars, the support of powerful institutions, persuasive new theoretical perspectives suited to current conditions, and the creation of an attractive, well-packaged and labeled and easily grasped measurement device. The result is a piece of information that claims truth value and therefore facilitates decision-making in terms of its normative standard and theoretical framework. At the same time, we have found little evidence of the HDI being used explicitly in the exercise of economic authority. For instance, only one major multilateral organization –the EU, under the auspices of the European

¹⁰Our search (with Jessica Shimmin) of US newspapers and wires for 2004 and 2009 on Lexis/Nexis indicated that it was referred to in 29 articles in 33 newspapers in 2009 and in 27 articles in 28 newspapers in 2004. In almost all the articles, the HDI was used as evidence about a country rather than discussed explicitly. About one third provided no information about the criteria for HDI rankings, while the rest referred primarily to life expectancy, per capita income, education, and literacy as the content of the HDI. The meaning of the HDI was more consistent and stable in 2009 than 2004, suggesting that it is becoming a more widely accepted and understood measure in the public domain. For example, in 2009 an article in the *Los Angeles Times* describes the HDI as “a comprehensive measurement of quality of life” (Dixon 2009). By 2009, the HDI was frequently presented as a transparent and intuitively acceptable form of knowledge which is disseminated publicly without much explanation or debate. This contrasts with reporting in 1990, when the indicator was first created, that debated its strengths and weaknesses. Although the *Economist*, for example, was supportive in its early reporting on the HDI, saying in 1990 that, “even if the methodology is far from watertight: GNP is a flawed measure of well-being” (26 May 1990:15) and in 1991, that “the simple but ingenious human development index is designed to measure the relative attainments of nations more subtly than annual ranking by GNP per head that the World Bank provides” (25 May 1991), it also worried about the methodology. It suggests that “as measurement, however, its sums leave much to be desired, because the measuring instruments are faulty where they are not lacking altogether” (26 May 1990).

Development Fund—appears to have explicitly taken components of countries’ HDI scores into account for the purposes of allocating aid (IFAD 2008).¹¹

B. The Doing Business Indicators

Where the HDI is an indicator of the quality of a society for its human inhabitants, the International Finance Corporation’s (IFC) Doing Business indicators reflect the experiences of businesses. Specifically, the Doing Business indicators measure the quality of business laws and related legal institutions across 183 countries (World Bank, 2009). They do this by asking lawyers in each country to report on the steps that a hypothetical firm would have to undertake in order to perform various tasks, including, starting a business, hiring and firing workers and enforcing a contract. The indicators generally reflect the time, cost and number of procedures associated with each task. The project also produces an ‘Ease of Doing Business’ indicator which is an unweighted average of the country’s percentile rankings on the indicators for ten topics.

The creators of the Doing Business indicators are very explicit about their theoretical presumptions.

A fundamental premise of Doing Business is that economic activity requires good rules. These include rules that establish and clarify property rights and reduce the costs of resolving disputes, rules that increase the predictability of economic interactions and rules that provide contractual partners with core protections against abuse. The objective: regulations designed to be efficient, to be accessible to all who need to use them and to be simple in their implementation. (World Bank, 2009: v)

These presumptions about the relationship between law and economic development inform every aspect of the construction of the Doing Business indicators. To begin with, the very existence of the indicators—which are not very costly to create by the standards of a large global organization—reflects a presumption that rules and regulations are important.¹² Second,

¹¹ For its 2008-2013 funding cycle the EDF has dropped the life expectancy and education components of the HDI as indicators of “needs” but it has begun using UNDP’s human poverty index for developing countries (HPI-1) (Commission of the European Communities 2007: 3, 17).

¹² Simeon Djankov in 2005 estimated the annual cost of the Doing Business project at about \$2m. “Unblocking Business”, *The Economist*, September 15, 2005. We do not have information on revenue generated from the project.

the fact that the indicators focus exclusively on rules embodied in the formal legal system reflects a presumption that it is those rules, as opposed to those reflected in informal practices, that influence economic activity. Third, the idea that regulations which make transactions such as starting a business or firing a worker fast, cheap and simple are automatically desirable, clearly informs the choice of time, cost and simplicity as metrics. The Doing Business project's empirical methodology implicitly presumes that elite lawyers are reliable sources of information about how small and medium-sized enterprises navigate the formal legal system. The project's proponents tend to gloss over the fact that all of these claims are in fact contestable (Arruñada 2007; Davis & Kruse 2007; Santos 2009)

The intellectual heritage of the Doing Business project lies in a school of thought within economics known as the new institutional economics. The fundamental premise of the new institutional economics is that when it comes to explaining economic outcomes, 'institutions matter.' An indication of the status of the new institutional economics within the broader discipline is the fact that one of its most famous proponents, Douglass North, shared the 1993 Nobel Prize in economics for his pioneering contributions to the field.

The specific theoretical claims embodied in the Doing Business indicators reflect extensions of North's ideas developed by prominent contemporary economists. Those ideas were disseminated through networks linking elite academic economists to the World Bank. For instance, the authors of the 2010 Doing Business report claim to have been inspired by the work of Hernando de Soto. De Soto is a Peruvian economist who became famous in the late 1980s for running simulations in which firms created by his research team struggled to comply with the voluminous formal requirements associated with entering various economic activities in Lima, Peru.¹³ De Soto's work in turn inspired a team of economists led by Andrei Shleifer and Robert Vishny, together with their former students Rafael La Porta and Florencio Lopez-de-Silanes, to collect similar data from a large sample of countries for the purpose of testing claims about the relationship between legal institutions and various economic outcomes. All four of the economists were affiliated with top-ranked Ivy League economics departments or business

¹³ Interestingly, although the Doing Business project cites de Soto's time and motion studies as its inspiration, Doing Business's empirical methodology diverges from de Soto's in an important way. De Soto ran simulations because he did not trust lawyers to know how difficult it would be for small and medium-sized enterprises to comply with all of their formal legal obligations (de Soto 1989, 133). By contrast the Doing Business project relies on information gathered from local lawyers, supplemented by the Doing Business team's own reading of the relevant legal instruments.

schools, and the academic papers they produced are among the most widely-cited in the entire discipline of economics.¹⁴ The so-called ‘gang of four’ also collaborated on academic projects with economists at the World Bank, including most notably Simeon Djankov, who eventually became the leader of the Doing Business project, before entering government as Bulgaria’s Finance Minister in 2009.

The Doing Business indicators are tremendously influential. They are used, in combination with other indicators, to guide the allocation of foreign aid by multilateral development banks, as well as the United States’ MCC and USAID. For example, at the World Bank, five of the ten DB indicators are used as “guideposts” (together with other sources) to assist country teams in determining country scores on “Business Regulatory Environment,” one of the 16 criteria of the Country Policy and Institutional Assessment (CPIA) (World Bank Operations Policy and Country Services, 2008).¹⁵ At the MCC, Doing Business indicators are used in two of the six indicators of whether countries are “Encouraging Economic Freedom”; countries must score above the median on at least three of the six indicators in this category to be eligible for MCC funding (Millennium Challenge Corporation 2009).¹⁶ Finally, USAID officials have informally expressed commitments to support countries that are willing to reform in areas measured by the Doing Business reports (Santos 2009: 60).

The Doing Business indicators also appear to be successful in attracting the attention of senior policymakers, government officials and business leaders in many of the World Bank’s client countries, as well as potential foreign investors in those countries, thus prompting significant amounts of benchmarking, dialogue and reform (World Bank Independent Evaluation Group 2008). These impacts undoubtedly reflect both the inherent scientific authority of the indicators, the overall authority of the World Bank and the substantial amount of effort that the Doing Business team makes to disseminate the indicators and the associated annual reports.

¹⁴ The Doing Business team claims that through June 2007, the 10 research articles that serve as background papers for Doing Business had been cited in 676 academic papers (World Bank Independent Evaluation Group 2008: 42).

¹⁵ The African Development Bank (2008) and the Asian Development Bank (2008) use Doing Business Indicators in similar ways.

¹⁶ The MCC is strongly committed to using indicators to guide the allocation of aid. Eligibility for MCC assistance is determined primarily by a country’s relative performance in three broad areas: ruling justly, investing in people, and economic freedom, as measured by 17 indicators. In order to be eligible a country must perform at or above the median on at least half of the indicators in each of the three categories. They must also be above the median on the corruption indicator. In addition, a country may be determined ineligible if it performs “substantially below” average on any indicator—in practice, below the 25th percentile—and has failed to take appropriate measures to address the problem (Millennium Challenge Corporation 2009).

That communications strategy includes a website, press conferences, road shows and workshops around the world. The Doing Business indicators appear in major publications such as the *New York Times*, *the Washington Post* and the *Economist*. The latter is particularly positive towards the indicator.¹⁷ We suspect that when the Doing Business indicators are summarized or endorsed by influential journalists, politicians, and economists, the effect is to amplify their already considerable authority.

The Doing Business indicators provide a case study in how governance through indicators can be contested and controlled. We have already discussed how use of the hiring and firing workers indicators by the World Bank was successfully contested by an international coalition of unions and labor activists. As a result of their activism the World Bank changed both the construction of the relevant indicators and the uses to which they were put. The campaign against the labor indicators was aided by the release in 2008 of a report by the World Bank's Independent Evaluation Group (IEG) which endorsed complaints that the indicators were inconsistent with the spirit of key International Labor Organization conventions. The IEG's evaluation represents the kind of accountability mechanism that might serve as a model for future efforts to regulate the production of indicators. Not only did the IEG review the substance of the indicators in terms of reliability and compliance with ILO standards, it also took the Doing Business project to task for failing to be sufficiently transparent about certain aspects of the process of constructing the indicators and failing to include a systematic process for validating the information they contained. At the same time, the IEG's assessment revealed that decision-makers who used the Doing Business indicators typically used them in combination with a number of other indicators. This suggests that there is an upper bound on the potential impact of any effort to regulate the production as opposed to the use of indicators.

The IEG's evaluation of the Doing Business indicators made recommendations on how the indicators ought to be used by the World Bank (and other institutions). It also offered a few general principles to guide the use of other indicators in the Bank's operations. Thus the

¹⁷ In 2009, *The Chicago Sun Times*, *The Houston Chronicle*, *The New York Times*, *The Philadelphia Inquirer*, and *The Washington Post* discussed the DB index eight times and the *Economist* referred to it thirteen times. The latter magazine emphasized in various stories its capacity to translate vague knowledge into precise numbers and its impartiality. References to the indicator present it as credible and self-evident, without discussion of the sources of data or criticism of its rankings. Moreover, it reports that the measure has encouraged reform and made business easier. A special report in March 2009 says that the reforms it suggests provide a guide to prosperity for developing countries that will "improve their chances of getting it right" (March 14, 2009). Thus, its reporting underscores the theoretical model of the DB indicator and supports it.

evaluation represents an effort to control the use as well as the production of indicators. Much of the IEG's analysis is consistent with our analysis of the advantages and disadvantages of using indicators as a technology of governance. For instance, the IEG concluded that the simplicity of the Doing Business indicators (and the language in the associated reports) combined with the fact that they were used to produce rankings were crucial components of their influence. The IEG also acknowledged the tensions between the benefits and costs of simplification and offered a mild criticism of the balance struck by the Doing Business project, concluding, "DB's simple and bold communication is integral to the product, but at times simplicity comes at the expense of rigor." (World Bank Independent Evaluation Group 2008: 39) Finally, the IEG recognized that the Doing Business indicators are implicitly premised on claims that certain regulatory reforms bear a linear relationship to better development outcomes. The evaluation report noted that while they may be "credible" those claims are not necessarily universally valid. Thus, the IEG recommended "caution" in using the Doing Business indicators and suggested that they typically be used in conjunction with other country-specific information. Accordingly, the IEG expressed concern about how the Doing Business indicators were being used by the MCC (but not the IDA). (51, 53) Unfortunately, the IEG did not discuss mechanisms that might be used to monitor and control future uses of indicators such as the Doing Business. This is one underpinning for our argument that a great deal more thought should be devoted to the design of mechanisms that enable various actors to contest or control the use of indicators as a technology of governance.

VII. Conclusion

The rapid growth in the production, use, and influence of indicators in global governance has had effects on forms of decision-making and on the shaping of public knowledge. This technology of global governance can affect the relative power and the identities of those who govern and those who are governed, and can alter patterns and possibilities of accountability. To what extent the reliance on indicators increases transparency and public scrutiny and to what extent it narrows the production of public knowledge to a small elite circle who create indicators are among key questions, with considerable theoretical and policy significance, that require substantial further empirical investigation.

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