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THE DECENT SOCIETY INDEX MARK 2: (1) CONSTRUCTING THE INDEX

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INTRODUCTION

In *The Decent Society: planning for social quality* (Abbott et al 2016) we developed the ‘Decent Society Model’ (DSM), on the shoulders of the ‘Social Quality’ approach (Beck et al 1997, 2001; Van der Maesen and Walker 2012) as a way of understanding, measuring and advising about the extent to which governments provide the resources and institutions within which their residents can live decent and productive lives. ‘Decency’ is not seen as some sort of latent variable underlying a range of indicators, but as a portmanteau term for characteristics which a society must have as ‘infrastructure’ for decent living. People have, acquire, display, profit from and develop or actualise themselves through ‘capabilities’ (see Sen 1993, 1999, 2004a,b, 2009). It is the business of the state to provide the means of acquiring developing and displaying capabilities, either directly as in the Scandinavian model of welfare or through some combination of how socioeconomic life is governed and what ‘safety-net’ provision is there for those who do not flourish.

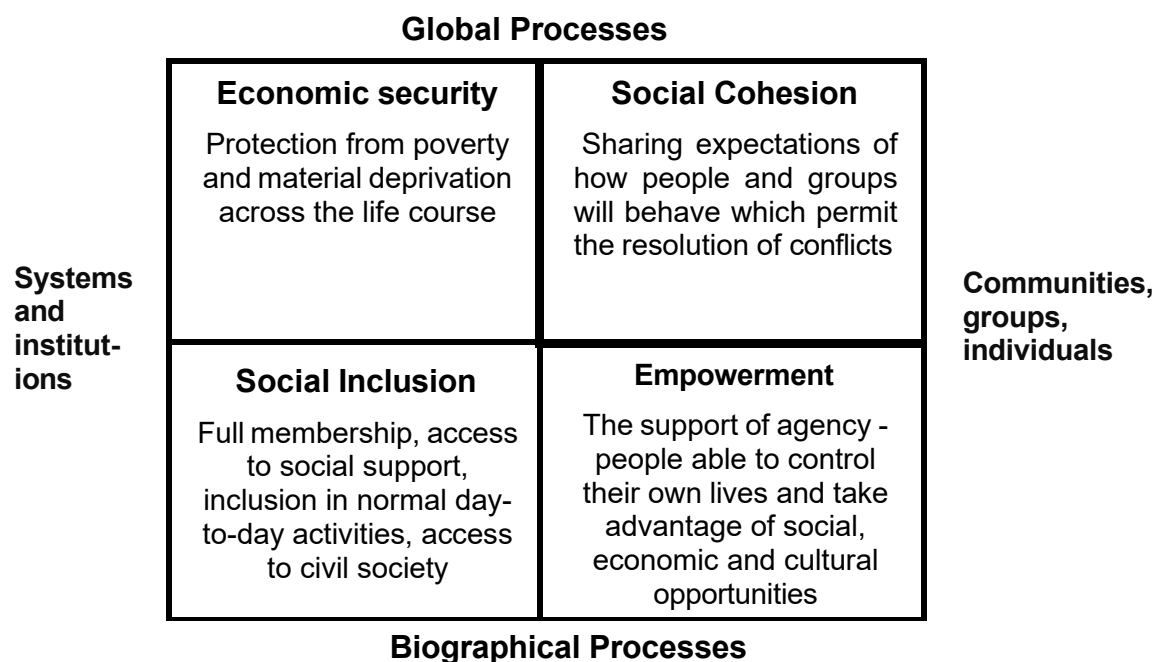
A ‘Decent Society Index’ (DSI) was constructed to explore the book’s ideas by comparing countries with which we were familiar – mostly Europe, the former Soviet Union, North America and sub-Saharan Africa. The fit of the indicators to the underlying theoretical concepts of the DSM could be improved, however, and we are now in the process of constructing a Mark 2 version which will be better conceived, and we shall try to construct ‘back data’ as well to permit the examination of trends. This first Working Paper outlines the

principles and mechanisms to be used in the construction of the Index, with rationales for the decisions which are taken, and we will keep it up to date as a guide to the use of the Index by adding an Appendix giving precise origin of the data for each quadrant of the model as it is completed. Successive Working Papers will present illustrative analyses of each of the four quadrants of the Model and its corresponding Index as well as listing scores for as many of the world's countries as we can retain despite the occasional absence of data in our main sources.

MODELLING SOCIAL PROCESS

Societies are not to be reified in the sense of being treated as objects made up additively of descriptive characteristics. Societies are constantly in modification, as resources are taken up and used by agents (to be conceptualised at all levels from the individual to the group or class and even the 'class of the whole' of which the society consists) and put back down, changed after use. The characteristics of societies are therefore better conceptualised as *processes* rather than objects or essences (or as contained within processes). A useful map of different kinds of process and their interaction is supplied by the Social Quality Model (Figure 1). The Figure shows four 'quadrants'. The two to the left are more systemic in the sense of constituting resources – the resources for economic security and the mechanisms by which individuals and groups are drawn together to make one society. The two to the right consist in what people and groups *do* within this resource environment – the discourses which are employed to preserve social stability and the resources for acquiring and using capabilities. Those above constitute more global ways of looking at what is going on in the society as a whole, while those below may often be characterised as parts of the biography or history of individuals and groups.

Figure 1: The Social Quality Model



The four quadrants – types of process – identified in Figure 1 are discussed at length in Abbott et al (2016, Chapters 2-5). Briefly and in simple terms they are characterised as follows:

- *Economic security* is a society's ability to ensure people's confidence that their material resources are sufficient, now and in the future. It is treated in the DSM as entirely a property of societies - mostly nation-states. (At the individual/household level, economic resources appear as part of Social Inclusion, below.) It represents, on the one hand, processes which constitute the nation's standing' and access to resources in the global money market – its credit rating – and the extent to which the resources on which it depends for its effectiveness are stable and reliable. On the other, Economic Security covers the extent to which people have sufficient resources for survival (concentrating on food security in the DSI) and the extent to which the state invests in and takes some responsibility for social insurance/welfare and the health and education of the population. Thus the processes considered in this quadrant comprise those which render government income secure on the one hand and those, on the other, which have as their purpose the management of risk for individuals and households so that costly life-stages (family formation, the schooling of children, old age) and unforeseen emergencies (health emergencies, structural unemployment, natural catastrophes) do not thrust people into poverty.
- *Social cohesion* comprises the social processes which act as the glue holding societies together: solidarity and shared norms, the extent to which individuals and groups of people share social relations, the extent to which groups whose interests may not coincide can tolerate each other and live with diversity (O'Connor 1998). It is the processes which integrate diverse interests at a structural level and manage conflicts and cleavages. Underpinning social cohesion is trust in the generalised other – trust that people will honour social roles - and confidence in government. Trust provides the basis for social interaction and enables people to work together to achieve common ends. People or groups may have different goals and hold different values, but for there to be a society which functions and is sustainable there must at least be an agreement on (a) how disputes and clashes of interest are mediated, (b) how and to what extent 'destructive' behaviours are controlled and (c) how the minority is protected from the majority and everyone is protected from the power of the state. In other words, a shared expectation (preferably taken for granted) is the foundation on which the acceptance of mutual obligations and reciprocity are built, enabling self-interest to be replaced by a commitment to promoting collective interest, in both the political and the commercial spheres.
- *Social inclusion* comprises the processes which ensure that individuals/households and the wider groups defined by affluence, gender, ethnicity, education, geographical location etc. can function as full members of a society or which exclude them from full membership. Citizenship is the basis for participating in the social, economic, political and cultural institutions of a society (Levitas 1998), and to the extent that people are excluded from participation they are not full citizens. This requires:

- the dismantling of institutional obstacles to participatory parity, whether economic, social or political;
- ensuring that people have sufficient economic resources to participate in the taken-for-granted activities and are recognised as fundamentally equal members of society; and
- that everyone's interests are represented in the decision-making process over redistribution and recognition (Fraser 2010).

It is based on the recognition of rights, responsibilities and fundamental equality and on the provision of life chances for all members of society to participate in its activities (Abrams et al 2004; Sen 2000). It enables individuals to claim and exercise their human rights and use their capabilities to achieve goals (objective wellbeing) through society's opportunity structures (Sen 1999). Performance (participation in institutions) develops a shared understanding of values and behavioural expectations and it engenders interpersonal trust and solidarity, loyalty and social cohesion. Social inclusion is about more than money, although lack of material resources is one form of social exclusion (Bowring 2000; Giddens 1994). There are three levels of inclusion: the micro (interpersonal integration in close-knit/informal networks of family, friends and neighbours), the meso (civic integration through membership of formal organisations which build trust, shared norms, solidarity and loyalty and permit coordinated action), and the macro (social, economic and political integration through citizenship rights).

- *Empowerment* is the provision of what is necessary for people to exercise agency and act autonomously; it increases the range of human choices by building people's capabilities to achieve the better life they desire. Empowerment means that people have both the freedom and the capabilities to act in whatever way they deem important (Sen 1999). As a formal prerequisite it involves political freedom and the possibility of 'one's voice being heard' when fundamental decisions are made; this is important both to ensure that the interests of all groups are considered and to reinforce an awareness of agency and control over life, which in turn encourages commercial/industrial entrepreneurship and social/political development. Empowerment is about both building capabilities and providing the conditions for people to be able to exercise the capabilities they have acquired. Education, for example, builds capability for employment, but for people to be able to exercise their employability capabilities, employment opportunities have to be available. This is dependent on economic policies and requires that policy makers have decency in mind as an aim of policy.

These four 'quadrants' form a whole, but they are not simply additive. Each of the four influences and is influenced by all of the others (Herrmann et al 2012). Social Inclusion and Empowerment are essential for the operation of a Decent Society, while Economic Security and Social Cohesion provide the structural base. Empowerment is essential if people are to act and for them to be socially included (Sen 2000), while Social Inclusion, through the building of social capital, supports the development of Social Cohesion (Abbott et al 2014). Economic Security is the material resource environment that support Empowerment and Social Inclusion. Social Cohesion,

through contributing to sustainable economic development, provides an essential foundation for Economic Security (Dulal and Foa 2011; Hamilton and Ruta 2006; Knack and Keefer 1997).

THE DECENT SOCIETY INDEX (DSI), MARK 1

The function of the Index

Chapter 7 of Abbott et al (2016) talks briefly about the construction of the original Decent Society Index, and Chapter 8 demonstrates its use in a series of descriptive analyses:

- the top 16 countries - Scandinavia, a range of northern and middle European countries headed by the Netherlands and including the UK near the bottom, Canada, Australia, New Zealand and the USA next to the UK;
- a case-study of Rwanda, whose ‘political settlement’ after the Genocide of 1994 has involved the planned and deliberate reinvestment of ‘rents’ in the welfare of the population, to overcome poverty and strengthen social inclusion, and
- the sixteen poorest countries in terms of GDP per capita, all of which are in sub-Saharan Africa, with eleven of them among the lowest-scoring countries on the DSI. Five of them, however, score around the world mean, mostly because of how they invest what little money they have in a ‘social wage’ of welfare support to provide economic security but also because of what they have achieved in terms of social cohesion and social inclusion.

These small headline analyses illustrate what we wanted from the DSI, which was something which could identify countries as more (or less) decent places in which to live but could then ‘drill down’ to identify the quadrant, or the domain within a quadrant, or even the individual indicator within a domain, where the differences lie. For example, it quickly became evident that there are several ways of making up a given DSI score. Among the top countries’, only Switzerland and perhaps New Zealand had flat profiles, scoring equally well in all four quadrants. Norway, Luxembourg, Canada and perhaps Sweden scored higher on Social Cohesion than the other domains, in the Netherlands, Germany and Austria it was social inclusion that stood out, and Denmark and Belgium scored well on both. While the score for the Empowerment Quadrant was not as high in the UK or the USA as in Norway or Switzerland, this quadrant was their high-scoring one. The ability to drill down in this way is important for indices which are going to be of practical use for planning and monitoring governance, and several of the worldwide socioeconomic indices have this property – for example, the Sustainable Development Goals Index (Sachs et al 2016) and the Social Progress Index (Porter et al 2015).

Sources and content

What distinguishes the Decent Society Model from its Social Quality ancestry is an emphasis on nation states and what they need/intend to provide for their citizens in order that a decent

life may be lived within them. This means that it emphasises infrastructure and what has been put or maintained in place under each heading of the model. In one sense this means measuring whether policies, regulations and procedures are in place, rather than concentrating on current achievements, because we do not judge an area as sustainably covered unless its institutional base is sound. On the other hand, it is one thing to have given formal assent to the Declaration of Human Rights in a country's laws and treaties but another to be able to demonstrate that human rights are actually respected, so the Index needs to cover both formal institution and practical implementation where this appears necessary and is possible given the available statistics. Similarly, it is one thing to have a policy for education or the provision of health services and another to commit the annual budget to implementing these policies. We would try to cover both where possible, though not necessarily in the same quadrant; spending on health and education, for example, we have located in Economic Security (because it covers accidents and expensive life-stages and acts in that sense as a transfer payment across the life course), while achievement of education and health and delivery of health services are in Empowerment, as preconditions for the development and exercise of capabilities.

Our preference has been for data sources which cover a large number of countries, both to cut down the otherwise enormous labour of finding the information for over a hundred countries individually and because the 'official' sources of this kind attempt a common definition across countries and tend to apply some degree of quality control (at least noting when a figure is implausibly high or low). Our order of preference for types of information is:-

1. Reports from international official bodies (the World Bank, the UN and its various sub-offices, etc.) or international NGOs which are 'factual' in the sense of being based on returns or published information produced by countries as part of their routine administrative statistics. This does not *guarantee* freedom from accidental errors or deliberate distortion (Sandefur and Glassman 2015), but it lessens their probability. One still needs to be alert for redefinitions over time, however (see e.g. Reyntjens 2015).
2. Systematic expert judgments (of level of corruption or aspects of governance, for instance, or ratings of observed/recorded events or behaviours).
3. Factual information from censuses or representative surveys of the general population or a sub-group – membership of groups, level of education, state of health, support received from friends or family, whether the respondent has a bank account, etc.
4. Judgmental information from population surveys – extent of corruption, effectiveness of government, etc.
5. Information from populations surveys on feelings and opinions (though these often include an implicit element of factual report and/or behavioural intention) – trust, satisfaction with government or the economy, hope for the future, awareness of choice or constraint in life, etc.

We were very much constrained by practicalities when compiling the Mark 1 Index. Some areas of social process could not be included in the model because, quite simply, no statistics

on them were published, or not for sufficient countries. Even in the economic sphere, not all countries make useable returns to the World Bank in all the areas which it tries to cover, and population surveys do not reach into all countries in every year, some countries being omitted altogether. Sometimes the desired figure is not available for the target year and one must accept an earlier year's data or else omit the country; also, in some areas of process whole sources are slow to publish their statistics. Data collection is not a simple and automatic process but requires a judgment call on whether to forego the target area, drop the country from the analysis or accept a less than optimal year for the data.

We finished up in DSI Mark 1 with 121 out of the more than 200 countries and territories listed in World Bank statistics. We have reasonable coverage in most broad regions, including sub-Saharan Africa, but coverage is not good in the MENA region (particularly among the richer, oil-bearing countries, which appear loth to share information about their economies and into which public opinion surveys have not always penetrated), one or two countries of substantial area have been missed (e.g. Mongolia, Myanmar) and many of the small island states also fail to supply sufficient information to be included.

Structure

The structure of the DSI works down from the unified Index through the four quadrants of the underlying model, each of which is made up of domains covering some important aspect of the particular set of social processes (and sometimes sub-domains where this is useful for practical analysis and pinpointing strengths and weaknesses), through 'prime indicators' and sometimes down to sub-indicators within these. Table 1 illustrates how things fit together and lists the components of the Mark 1 DSI.

- The Economic Security quadrant is represented by a 'national economy' domain which represents the strength of the economy as a whole – its size relative to the size of the population and the cost of living and the extent to which it shows signs of instability, plus food security as the basic level of economic security for individuals, and a 'social wage' dimension covering provision for health, education, pensions, unemployment support etc.
- Social Cohesion is represented by domains covering aspects of governance, trust of people in general and of state and commercial institutions, and three ways by which the society could be divided – economic inequality, the effects of an influx of immigrants and the existence of groups which hold grievances against each other.
- Social Inclusion has domains which cover Human Rights (as part of a society's network of law and policy and as something to be practised or breached), poverty as a source of social exclusion, the tendency for women to be treated as less than full citizens, people's inclusion in the social world through access to banking and through their experience as workers, their feeling of being safe and comfortable within their community, the extent to which they are included through friendship and can rely on family for help and support, and the extent of their active involvement in the socio-political world.

- Empowerment is represented by health and education as the two underpinnings of agency, people's access to information and communication, the 'political freedoms', the extent to which they can employ their capabilities in work or through setting up an enterprise and two kinds of psychological readiness to exercise agency.

Table 1: Components of the MK 1 Decent Society Index

Quadrants	Domains	Sub-domains	Prime indicators	Sub-indicators	Notes and comments	
ECONOMIC SECURITY	NATIONAL ECONOMY	GNI	GNI per capita (ppp, \$)		The basis of the state's spending, controlling for population size and cost of living. <i>Weighted x 2.</i>	
		Positive factors for sustainability	Balance of payments (%GDP)		Excess of exports over imports (negative scores vice versa). Excess of exports counts as a plus factor	
			Foreign Direct Investment (%GDP)		Counts as a plus factor	
		Negative factors for sustainability	Development Aid (%GDP)		These are counted as minus factors – they do bring money into the country and the country may be dependent on them, but they are not reliable or under government control. Scores are therefore reversed in calculation of domains. <i>Each is weighted 0.5.</i>	
			Remittances (% GDP)			
	FOOD SECURITY		% under-nourished	% under-nourished (FAO)	Prime indicator is average of FAO and GFSI. Values are reversed in calculating Domain score. There are better statistics on infrastructure of food security, but these are missing for several of the poorer countries.	
				% under-nourished (GFSI)		
	SOCIAL WAGE		Govt. spending on health (% of govt spending)			
			Govt. spending on education (% of GDP)			
			Index of Social Security coverage (calculated)			Assessment of coverage from SSA data. (Spending measures available for too few countries.) Domain score is an average of the three.
SOCIAL COHESION	GOOD GOVERNANCE	Rule of Law		Rule of Law (FH)	Sub-domain score is an average of available scores	
						Rule of Law (WB)
				Govt effectiveness (WB)	Sub-domain score is an average of available scores	

		Govt. effective-ness		Govt. effectiveness (FH)	
				Govt. effectiveness (GWP)	
		Regulatory quality	Regulatory quality (WB)		
		Political stability /control of violence	Political stability /control of violence (WB)		
		Legitimacy		Legitimacy (FSI)	Sub-domain score is an average of available scores
				Fairness of elections (GWP)	
	Control of corruption		Control of corruption (WB)	Sub-domain score is an average of available scores	
			Control of corruption (TI)		
	TRUST IN PEOPLE	Trust in people		Trust in people (GWP)	Sub-domain score is an average of available scores
				Trust in people (WVS)	
				Trust in people (HDI)	
	TRUST IN INSTITUTIONS	Trust in legal institutions		Trust in legal institutions (GWP)	Sub-domain score is an average of available scores
				Trust in legal institutions (WVS)	
		Trust in police	Trust in police (GWP)		
		Trust in national government		Trust in national govt. (GWP)	Sub-domain score is an average of available scores
				Trust in national govt. (WVS)	
		Trust in the Military		Trust in the military (GWP)	Sub-domain score is an average of available scores
			Trust in the Military (WVS)		
Trust in banks etc.			Trust in banks etc (GWP)	Sub-domain score is an average of available scores	
		Trust in banks etc (WVS)			
ECONOMIC EQUALITY		Gini Coefficient		Reversed as domain score	

	GROUP HARMONY			Group Grievance Index (FSI)	Sub-domain score is an average of available scores (with the FSI measure reversed)	
				Good country for minorities (GWP)		
	ACCEPTANCE OF IMMIGRATION			% immigrants in population	Infrastructural measure. Reversed in calculating domain.	
				Good place for immigrant (GWP)	Attitudinal measure	
SOCIAL INCLUSION	ABSENCE OF POVERTY			Income share of lowest quintile	The two are averaged for domain score	
				%at or below \$1.25 ppp per day	Reversed when added to domain score	
	FINANCIAL INCLUSION		% with a bank account		Information on loans etc is missing from too many countries	
	WORK INCLUSION			% aged 15+ in labour force	The two are averaged for domain score	
				% of labour force unemployed	Reversed when added to domain score	
	GENDER INCLUSION			Women in Parliament, % of Parliament	The two are averaged for domain score	
				Ratio of % women employed to % men		
	FRIENDS AND FAMILY			Can rely on family/friends (GWP)	The two are averaged for domain score	
				Easy to make and meet friends (GWP)		
	ACTIVE INVOLVEMENT			% time volunteered	The two are averaged for domain score	
				Voiced opinion to politicians/officials (GWP)		
	FEELING OF SAFETY			Feel safe on streets at night (GWP)	The two are averaged for domain score	
				Feel secure in neighbourhood (WVS)		
	HUMAN RIGHTS	Acceptance of Human Rights			Acceptance of UN Conventions on Human Rights	Rating scale based on extent of reservations expressed, for each of 17 Conventions The two are averaged for domain score
		Breach of Human Rights			Breach of Human Rights (FSI)	Reversed as sub-domain score

EMPOWERMENT	POLITICAL EMPOWERMENT			Freedom of Expression (FH)	The four are averaged for domain score	
				Freedom of Association (FH)		
				Political pluralism (FH)		
				Voice and Accountability (WB)		
	CONDITIONS FOR HEALTH	Public Health			Improved water (%)	The two are averaged for subdomain score
					Improved sanitation (%)	
		Medical health	Doctors per 1,000 pop.			
		Achieved health			Life expectancy (years)	The two are averaged for subdomain score
				% with illness/handicap which hampers work (GWP)		
	EDUCATION				Mean years of schooling in pop. (25+)	Historic provision for people now adult. The two are averaged for the domain score
					primary completion (% of age group)	
	COMMUNICATION INFRA-STRUCTURE				Electricity (% household)	The two are averaged for the domain score
					Internet users (%)	
					Mobile subscriptions per 100	
	AVAILABILITY OF WORK	Entrepreneurship opportunities			Good place to start a business (GWP)	The two are averaged for the subdomain score
					Ease of doing business (WBEDB)	
		Job availability	Good time to find a job (GWP)			
	AWARENESS OF CHOICE				Personal autonomy (FH)	The four are averaged for the domain score
					Freedom to live as like (GWP)	
					Freedom of choice (WVS)	
				Freedom of choice (HDI)		
				Working hard leads to	The two are averaged for the domain score	

	BELIEF IN EFFICACY OF WORK			success (GWP)	
				People who work hard get ahead (WVS)	

Key to source annotations: FAO: Food and Agriculture Office of the United Nations FH: Freedom House
 FSI: Fragile States Index GFSI: Global Food Safety Initiative GWP: Gallup World Poll
 HDI: Human Development Index TI: Transparency International WB: World Bank – Worldwide Governance Indicators
 WBEDB: World Bank – Ease of Doing Business WVS: World Values Survey

The ‘Mark 1’ version of the DSI also illustrates other features that we considered acceptable and in some cases desirable in an index of this kind. For example, it displays a ‘basket’ rather than a ‘factorial’ approach to combining indicators into domains and domains into quadrants. That is, what is posited as underlying each quadrant is not a single latent variable, but a type of social process. The domain scores are not estimators of the quadrant scores, but elements that have to be taken into account, given a reasonable picture of how the processes captured by the quadrant contribute to establishing a ‘space’ within which a decent life can be lived. Domains do tend to correlate with ‘their’ quadrant reasonably highly (Table 2) – ranging mostly from 0.43 to 0.84 ($p < .001$), so its relationship with the quadrant score accounts for between 18 per cent and 71 per cent of the domain variance – but a few are much lower. (This may of course reflect the quality of the indicators as much as the integration of the domain in the quadrant.)

The correlation of a given domain with the *other* quadrants may also be quite high. This illustrates the general principle of the Social Quality approach, that the model does not posit a unique causal direction but allows for multiple connectivity between quadrants. Under some circumstances content in one quadrant will act as a cause or prerequisite for content in another, but in other circumstances the direction of influence may be reversed, or both may be the case (a circular relationship), or neither (an independent process). As we would expect, the quadrant scores themselves are correlated with each other at quite a high and statistically significant level. The correlation coefficients of empowerment with economic security and social inclusion are above 0.7, with social inclusion slightly the higher of the two; they share respectively 47.5 per cent and 50.5 per cent of their variance. Social cohesion and social inclusion share 58 per cent of variance. The other links are weaker but still significant at $p < 0.001$, ranging from about 0.47 to 0.58 and explaining between 22 per cent and 33 per cent of the variance of pairs of quadrant scores.

Table 2: DSI Mark 1: correlation of domains scores with quadrant scores

	ECONOMIC SECURITY	SOCIAL COHESION	SOCIAL INCLUSION	EMPOWER- MENT
	Economic Security			
National Economy	.618**	.484**	.522**	.565**
Food Security	.842**	.322**	.373**	.562**
Social Wage	.685**	.248**	.392**	.383**
	Social Cohesion			
Good Governance	.611**	.801**	.835**	.758**
Trust in People	.229*	.835**	.564**	.387**
Trust in Institutions	.062	.597**	.287**	.166
Economic Equality	.481**	.542**	.412**	.218*
Group Harmony	.445**	.738**	.677**	.580**
Acceptance of Immigration	-.142	.277**	.106	-.035
	Social Inclusion			
Absence of Poverty	.410**	.304**	.426**	.265**
Financial Inclusion	.571**	.537**	.733**	.587**
Work Inclusion	-.143	.114	.176	.061
Gender Inclusion	.319**	.531**	.716**	.374**
Friends and Family	.516**	.472**	.710**	.732**
Active Involvement	.143	.366**	.523**	.415**
Feeling of Safety	.330**	.576**	.568**	.269**
Human Rights	.391**	.441**	.582**	.445**
	Empowerment			
Political Empowerment	.458**	.530**	.610**	.644**
Conditions for Health Education	.753**	.396**	.562**	.770**
Education	.685**	.301**	.542**	.755**
Communications Infrastructure	.768**	.351**	.548**	.771**
Availability of Work	-.370**	-.107	-.225*	-.122
Awareness of Choice	.435**	.557**	.651**	.787**
Belief in Efficacy of Work	-.182	.057	.007	.206*

Key: **: p<.001 * : p<.01

Source: Abbott et al (2016), Table 7.2

While the quadrants do not in any statistical sense constitute ‘underlying factors’ of the Decent Society score, it is interesting nonetheless to carry out a factor analysis of the domain scores, which gives insight into how the social processes align themselves in terms of their substance. In the 2016 book we gave the results of a principal components analysis with varimax rotation, which yielded five factors which show a structure based on areas of life and governance (Table 3). (We tried out an oblique solution, but it added nothing useful to the interpretation and it does not permit an estimation of the relative size of factors through variance explained.)

- The first factor, which we named ‘Economy and Resources’, accounted for about 22 per cent of the variance and loaded on National *Economy* and *Food Security* in Economic Security, the *Communication Infrastructure* and the delivery of *education* and *health services* in Empowerment, *Financial*

Inclusion (being in the banking system) under Social Inclusion, and perhaps *Friends and Family* (a social resource).

- The second factor (of similar size) combines elements of Social Cohesion and Social Inclusion: *Human Rights, Group Harmony, Good Governance, Gender Inclusion, Acceptance of Immigration*, plus *Political Empowerment* and perhaps *Active Involvement*.
- The third (13%), we have labelled Work and Agency; it covers *Availability of Work, Work Inclusion, Belief in the Efficacy of Work* and *Awareness of Choice*.
- The fourth, of similar size to the third, is Trust: *Trust in Institutions, Trust in People, Feeling of Safety* in the Neighbourhood and perhaps *Economic Equality*.
- Finally, a small fifth factor (7%) has been labelled ‘the Social Wage’: it covers the *Social Wage* in Economic Security (health spending, spending on education and provision of social security) plus a measure of *poverty* reversed so that the poorest appear at the bottom of the scale.

Table 3: DSI Mark 1: factor analysis of domain scores

DOMAIN	1 ECONOMY AND RESOURCE	2 COHESION/ INCLUSION	3 WORK AND AGENCY	4 TRUST	5 SOCIAL WAGE
Communications Infrastructure (Em)	.890	.195	-.202	.062	.220
Conditions for Health (Em)	.865	.199	-.177	.120	.216
Education (Em)	.842	.236	-.193	-.001	.183
National Economy (Ec)	.694	.086	.057	.425	-.153
Food Security (Ec)	.662	.126	-.205	.021	.447
Financial Inclusion (Si)	.620	.415	-.237	.328	-.013
Friends And Family (Si)	.574	.442	.347	.077	.148
Human Rights (Si)	.129	.825	-.219	-.082	.182
Political Empowerment (Em)	.334	.824	-.160	.002	-.025
Group Harmony (Sc)	.226	.788	.167	.221	-.037
Good Governance (Sc)	.522	.700	-.063	.398	.033
Gender Inclusion (Si)	.095	.679	-.092	.232	.183
Acceptance of Immigration (Si)	-.524	.613	.219	-.140	.141
Active Involvement (Si)	.172	.494	.455	.109	-.335
Belief in Efficacy of Work (Em)	-.143	-.034	.825	.054	-.085
Availability Of Work (Em)	-.352	-.247	.784	.017	-.096
Work Inclusion (Si)	-.169	.014	.628	.134	-.022

Awareness of Choice (Em)	.394	.546	.596	.132	.056
Trust in Institutions (Sc)	-.005	-.080	.396	.825	-.048
Trust in People (Sc)	.071	.305	.211	.812	.104
Feeling of Safety (Si)	.225	.094	-.063	.780	.065
Economic Equality (Sc)	.294	.076	-.385	.472	.388
Absence of Poverty (Si)	.247	.021	-.227	.259	.749
Social Wage (Ec)	.229	.397	.175	-.150	.540

Key: (Ec): Economic Security. (Sc): Social Cohesion. (Si): Social Inclusion. (Em): Empowerment.

Source : Abbott et al (2016), Table 7.3.

Construction

A single indicator may be the entire basis for a domain or sub-domain: for example, the Gini Coefficient is a sufficient indicator of economic inequality within a national population (the basis of a domain within Social Inclusion), and the answers to an attitude survey question on whether other people can be trusted are sufficient data for a ‘Trust in Others’ domain (in Social Cohesion). More often there will be two or more indicators to be combined, for one of two reasons. The first is that they may cover different aspects of the same concept: for example, the Human Rights domain within Social Inclusion draws in the first instance on information about whether countries have accepted the United Nations Conventions on ‘Human Rights and the extent to which the reservations they have made in doing so undermine the purpose of the Convention; on the other hand, agreeing to a Convention does not guarantee that it will be put into practice, and so these data need to be moderated by a measure of Breach of Human Rights based on the knowledge of experts familiar with the country. The second reason is a pragmatic one, that any given source may not include every country – particularly where attitude surveys are concerned, - so if we collect data from several sources then it may be possible to assess a given country on the information that *is* available, rather than dropping it from analysis because it lacks some of the array of measures.

We may note in passing that the aim was to use indicators that showed that the infrastructure for achieving the goal of a domain is in place rather than measuring the extent of its *current* achievement. However, this aim is not always achievable. In the case of Human Rights, for example, we have a measure of infrastructure, but it makes little sense to talk about Human Rights actually being respected without some measure of the extent to which they are breached in practice. In the case of trust, what we are measuring is a current level of trust, not the infrastructure that sustains it, but it is difficult to see how we could do otherwise; there is no agreement on trust’s infrastructure and you cannot legislate for trust in the population. It is therefore necessary to take the measure of current achievement and reason from it to the existence of structures which sustain it.

Where multiple indicators are considered to be measuring the same underlying variable and they all have the same units of measurement – for example, if all the ‘trust in institutions’

indicators showing trust in different institutions were measured on the same scale (e.g. percentage showing more trust than distrust) then it would be possible to take a straightforward average as a primary indicator or ‘best estimate’ of the underlying variable, and for the sake of greater interpretability when ‘drilling down’ this is what we have sometimes done in the Mark 1 Index. More often, however, we are ‘adding together’ items measured on different scales, where an average would not be interpretable. Mostly, therefore, indicators have been transformed to fit the normal distribution as far as they can, on a scale from 1 to 100 with a mean value of 50 and, where possible, a standard deviation of 10. Some distributions are quite strongly skewed, however, and it has been necessary to reduce the standard deviation to fit all values within the confines of the scale. We rejected the alternative stratagem of applying a prior transformation (e.g. a logarithmic or exponential function) to render the distribution more nearly normal. To do so would have mathematical advantages, but it distorts the size of real differences between countries; if the real distribution in the original units of measurement is somewhat clustered on one side of the mean and has a long tail on the other, then transformation would simply conceal this fact. However, the penalty to be paid is sometimes that values are much further extended from the mean on one side of it than the other: a variable may have an upper value in the high 90s but reach down only to the 30s below the mean.

When indicators have been combined to make a primary indicator or sub-domain score, and when the results are combined to make a domain score, it is necessary to renormalise, re-establishing the standard deviation at 10. This is because when correlated variables are combined the standard deviation shrinks. Quadrant scores are then computed by combining domain scores – in three quadrants with equal weighting because we have no prior reason to suppose that one domain is more important than any other. In the Economic Security quadrant, however, to count National Income as equal and of the same weight as e.g. amount of annual remittances appeared to distort the sense of the measures, giving far too much weight to remittances; here National Income has been weighted, to double its effect, and remittances and official aid have been weighted at 0.5. Combining the four quadrants, with equal weighting, then yields the overall Index score. Both the quadrant scores and the Index have been renormalised because of shrinkage, and at this level we have expanded the standard deviation as far as it will go while retaining a mean of 50 and the overall ‘envelope’ of 1-100. At this broad level of generality, it seemed to us, it would aid interpretation if the high scores were in the 90s and the low scores close to zero, rather than stretching only between, say, 70 and 30. (It would be possible to stretch the scores artificially to use the full range from 1 to 100 but we decided not to do so because it meant that mean values would sometimes move away from 50, which is a useful constant value around which to anchor interpretation.)

TOWARDS A DSI MARK 2

The first version of the DSI was adequate to demonstrate the possibilities of such an Index/Dashboard combination for identifying which countries appear to offer their residents a

decent style of life or are working towards doing so (often in the face of severe resource constraints and/or while also struggling to overcome the aftermath of historical discontinuities). It can and should be improved, however, to provide a more sensitive and nuanced fit to the underlying concepts of the model. By this we do not mean more precise measurement or even more accurate measurement, because the concept of ‘the Decent Society’ cannot be expressed as an underlying latent variable and the problems are therefore problems of interpretation, not just measurement. ‘The Decent Society’ is a fuzzy concept: core cases that fit the concept can be identified without great difficulty, and it is relatively easy to identify the respects in which countries fall short that clearly do not (yet) fit the concept. At the borders of the concept, however, whether and in what respect a country is to count as ‘decent’ is a judgment call.

Overview of construction

In the Mark 2 version we shall again endeavour to include as many countries as possible and also to provide a reasonable representation of types and regions around the globe. Here, however, we shall be ruled by practicalities in the sense that a practical exclusion decision has to be taken every time we attempt to use a variable for which data are not collected in some countries: do we exclude the variable, or the country? It will be more difficult still when we attempt to establish a ‘back database’ of previous years, to explore trends, and it may be necessary to work with a slimmed-down index and check its correlation with the full one.

A further issue to be borne in mind is that of complexity: to the extent that we can simplify, we make it easier for countries and their researchers to work out and update values for themselves using locally available surveys and administrative statistics. A related issue is that we should like to draw less frequently on attitude surveys and the like. This is partly because of difficulties in interpreting precisely what is meant by the respondents, but more because the surveys are not usually annual – so we may find ourselves compiling data from different years within the same indicator – and they seldom ask precisely the same question (and never in the same place with regard to other questions in the questionnaire, which might set up a conceptual context for the respondent) and they do not always record the answers on the same scale of measurement. These last two factors, coupled with the fact that a translation of a question into another language may give it subtly different overtones – languages do not map onto each other exactly – make such data difficult to characterise and combine.

We have considered extrapolation and interpolation as ways for replacing ‘missing values’ in order to avoid dropping a country or a variable because information is missing there. Neither is suitable for the purpose of the DSI, however. Extrapolation in a time-series of data ‘joins the dots’ and supplies mathematically most probably values, on the twin assumptions that a regression line fits the real data and that nothing out of the ordinary has happened to make this assumption untenable. However, dramatic events change data values in particular years: step-functional changes and notorious events such as the fall of the Soviet Union, the

Genocide in Rwanda and the Arab Uprisings across the Middle East and North Africa led to distortions of past trends in a lot of statistical series, as did the fall in the price of oil over recent years and the ‘banking crises’ of the last decade, and so we cannot rely upon the assumption of regularity across the period of missing data. Interpolation of values calculated from other variables undermines the purpose of having domains; the extent of intercorrelation is precisely what we may wish to discover, and this is no longer clearly readable if we have used correlations between variables in other countries to fill in missing values in the target one. In fact, if we employ any sort of inference from even very similar countries to estimate values in the target one, then we cannot validly compare the results from the target country with those from the countries which formed the basis of estimation.

Where we have several related measures, with some missing in a particular country, it is probably valid to estimate the overall average value from those that are present. For example, in the Mark 1 Index we had ‘trust in the institution’ for some or all of a range of institutions - in government, in Parliament, in Ministers, in civil servants, in the tax office, in the courts, in the police, in local government, in banks, in commerce, in the church (or equivalent), etc., depending on which surveys had run in the country at an appropriate time – and entered the average of those that were present as best estimate when some were missing. It was necessary to think carefully about doing so, however. It seemed to us to take ‘trust in government’ as best estimate of trust in institutions if no other was present in the dataset for the country, but we would not have taken ‘trust in the police’ or ‘trust in the army’ as sole indicator, because these are clearly specialist institutions and not predictors of overall trust. Indeed, in the Mark 1 Index we did not use ‘trust in the president’, although it is collected in a number of surveys, because it tends to run substantially higher than other targets of trust and was distorting the average when it was present, and we shall not use it in Mark 2 either.

The use of averages as a way of summarising a number of variables must itself be considered more carefully, because by definition taking an average causes regression to the mean by shrinking the standard deviation. This is not a problem when averaging normalised components – e.g. indicators to form a domain or sub-domain score, domains to form a quadrant score, etc.; the shrinkage is simply corrected by altering the (arbitrary) standard deviation. When combining scores from e.g. attitude surveys, however, the mechanical average is not the only possible form of combination. We could perhaps take the lowest value (‘the best estimate is that *at least* this many said that’) or the highest (‘the best estimate is that *at most* this many said that’), and we shall consider doing so where appropriate. A more radical option, however, is to take one of the relevant sources (perhaps the one that covers the most countries) as our prime indicator and use the others only for filling in gaps (providing there is a sufficient overlap of countries that appear on both the prime and the proposed alternative(s), so that we can check for consistent differences (such as one scoring consistently higher than the others) and perhaps correct for them). This would eliminate at least some of the error variance because the values taken from the prime indicator all come from the same survey and therefore have the same question wording (barring variations introduced by translation) and appear in a constant place within the questionnaire.

Content

Table 4 outlines current plans for the content of the Mark 2 Index (subject to being able to find data for sufficient countries), mirroring Table 1. Points to note particularly are:

Economic Security

- GNI is replaced by International Credit Rating (an average of the ratings made by Standard and Poor, Fitch and Moody, if all three are present, or of those where a rating has been published. A fourth (Chinese) source will be used to fill most gaps, and then some of the remainder may be filled from more limited and specific commercial credit rating services. The international ratings are direct ratings of the security of the economy – whether they can be trusted to pay their debts, whether money invested in them is safe, the stability of their currency. They are also affected to some extent by the sheer size of the economy, by the current account balance between exports and imports and by other factors such as amount of current saving, so direct measure of these become redundant.
- Other aspects of available finance have been rearranged, making a clearer separation of sustainable from unreliable sources of financial status for the country.

Social cohesion

- Governance indicators have been divided into two sets – Rule of Law (including control of corruption and perceived legitimacy) and Government effectiveness (including regulatory quality and the control of violence), to give a more nuanced picture of the institutions through which the space for decent lives is established.
- A different way of dealing with attitude surveys will be adopted for the ‘trust’ variables- trust in others and trust in government (with the courts identified as a separate sub-domain).
- Group harmony (for which an alternative title might have been ‘the demographics of disunity.’) uses the same measure of group grievances as in the Mark 1 Index but adds economic inequality and tidies up the measures of immigrant population to cover both short-term (including internally displaced persons) and longer-term migration.

Social inclusion

- Human Rights is measured as before, but the system for noting destructive reservations has been more strongly formalised, and we shall check whether countries that accepted the Convention have subsequently withdrawn their assent.
- Economic Inclusion: in place of poverty measures we have adopted a computed variable – GNI per capita ppp modified by the Gini Coefficient. This gives an estimate of how much is available per head if shared out equally, modified by the extent of inequality in distribution; it therefore catches elements of both relative and absolute definitions of poverty.
- In Work Inclusion we shall consider only males; female engagement with the labour market is considered under Gender Inclusion, given that in some countries the main effect of job shortage for young women is failure to make the transition to the labour market rather than unemployment per se (Abbott and Teti 2017).
- Financial Inclusion: we shall look again to see if bank loans as well as bank accounts can be included in the domain without losing many countries.
- Gender exclusion: a schooling domain will be added.
- Safety and security: homicide information has been removed from the domain because of doubts about its validity for comparing countries, given that criminal statistics, even counts of unlawful homicides, depend so much on the laws in force within a country, the policies governing *policing*, the willingness of the populace to report crime and give witness statements and the ability of the police and/or the government to process the information.

- Family and community: now two sub-domains: family and friends as support, and trust in family and community. ‘Active participation’ has also been included as a subdomain of this domain, but information on taking part in demonstrations etc has been discarded.
- Safety and security: now two subdomains, local (safety in neighbourhood) and national (terrorism).

Empowerment

- Health: more indicators have been added.
- Education: more indicators have been added.
- Political empowerment: pluralism has been deleted (it was used elsewhere)
- Work and entrepreneurship have been removed – not by any means the only way of realising capabilities, and access to work ties in with Social Inclusion above.
- Psychological empowerment: separated more clearly into two subdomains (locus of control, and self-esteem in the sense of success being realistic as a goal).

Table 4: Proposed Components of the MK 2 Decent Society Index

Quadrants	Domains	Sub-domains	Prime indicators	Sub-indicators	Notes and comments	
ECONOMIC SECURITY	INTERNATIONAL FINANCIAL SECURITY		‘credit rating’			
	FINANCIAL INDEPENDENCE	Factors of stability		Tax Revenue (%GDP)		
				Natural resource rents (%GDP)	‘Rents’ includes but is not limited to oil revenues to the country.	
		Factors of instability		Foreign Direct Investment (%GDP)	While these are sources of income for the country (and the government, in the case of Aid), they are destabilising in the longer term because they can vary unpredictably or (in the case of Aid) even be withdrawn altogether. They are subtracted from rather than added to the ‘Financial Independence’ domain.	
				Development Aid (%GDP)		
		Remittances (% GDP)				
	FOOD SECURITY		% under-nourished (FAO)		Values are reversed in calculating Domain score. There are better statistics on infrastructure of food security, but missing for several of the poorer countries.	
	SOCIAL WAGE	Govt. spending on health and education		Govt. spending on health and education (% of GDP)	Govt. spending on health (% of GDP)	Computed from statistics expressed as % of Govt spending
					Govt. spending on education (% of GDP)	
		Index of Social Security coverage				Assessment of coverage from SSA data. (Spending measures available for too few countries.)
SOCIAL COHESION	RULE OF LAW	Rule of Law		Rule of Law (WB)	Sub-domain score is an average of available scores	
				Rule of Law (FH)		

		Control of corruption		Control of corruption (WB)	Sub-domain score is an average of available scores
				Perceived corruption (TI)	
		Legitimacy		Legitimacy (FSI)	Sub-domain score is an average of available scores
				Fair elections (FH)	
		Distance from Autocracy		Autocracy Scale (Polity4)	Gaps filled from FH equivalent. Reversed as subdomain.
GOVERNMENT EFFECTIVENESS	GOVERNMENT EFFECTIVENESS	Govt effectiveness		Govt effectiveness (WB)	Sub-domain score is an average of available scores Gaps filled from BTL.
				Govt. effectiveness (FH)	
		Regulatory quality	Regulatory quality (WB)		
		Political stability/control of violence	Political stability/control of violence (WB)		
PUBLIC CONFIDENCE IN GOVERNMENT		Trust in government		Trust in government	Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones.
		Trust in courts		Trust in courts	
TRUST IN PEOPLE			Trust in people		Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones.
GROUP HARMONY		Group grievances	Group grievances (FSI)		Reversed as a contribution to domain score
		Immigration	Immigration	Refugees and IDPs as % of population (UNHCR)	Reversed as a contribution to domain score
				% population born abroad	
		Economic equality	Gini coefficient		Reversed as a contribution to domain score
SOCIAL INCLUSION	HUMAN RIGHTS	Assent to Conventions		Index of assent to Conventions	Calculated from UN list of parties to Conventions, modified by the extent to which their reservations at the time of signing undermine the purpose of the Convention.
		Breach of Rights		Breaches of rights (FSI)	Reversed in calculating domain.
	ECONOMIC INCLUSION		Index of Exclusion through Poverty		This is computed as GNI per capita ppp multiplied by the GINI coefficient. Reversed in the domain

	WORK INCLUSION			% of male population aged 16-65 in labour force	Women's employment is dealt with under gender
				% of male labour force unemployed	Reversed in computing domain
	FINANCIAL INCLUSION		% with a bank account		Explore also using having a bank loan
	GENDER INCLUSION	Women in Parliament	% of MPs who are female		
		Women in labour force	Ratio of % women in labour force to % men		
		Women in schooling		Ratio of women to men entering primary education	The three are averaged in the sub-domain score
				Ratio of women to men entering secondary education	
				Ratio of women to men entering tertiary education	
SAFETY AND SECURITY	Safety in neighbourhood			Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones.	
	Freedom from terrorism	Global terrorism scale (GTS)		Reversed as a contribution to domain score	
FAMILY AND COMMUNITY	Friends and family		Someone to rely on for support	Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones.	
	Trust in community		Trust in community	As with 'someone to rely on'. Average of trust in family/neighbours/community	
	Active involvement		Active in church etc. or attends at least once a week	Active in civil society (sport, art, music, education, environment,	Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones. Also World Giving Index (WGI) for volunteering

				consumer, local, or has volunteered time)	
				Active in politics (member of TU, professional association or political party or has volunteered for political activity)	
EMPOWERMENT		Public health		%access to improved water	
				% access top improved sanitation	
		Curative health		Physicians per thousand	
				Nurses/ midwives per thousand	
				% giving birth under professional supervision	
				% making 4 pre-birth visits to clinic	
		Achieved health		Healthy life years	Or life expectancy if this doesn't have the coverage
				Infant mortality rate	
				Maternal mortality rate	
	EDUCATION	Educational provision		Compulsory schooling (years)	
				Pupil/teacher ratio, primary	
				Pupil/teacher ratio, secondary	
		Achieved education		% aged 25+ with at least completed primary	
				Adult literacy % (15+)	
				Youth literacy % (15-24)	
	INFRA-STRUCTURE			Access to electricity %	
				Broadband subscription %	
				Mobile subscription per hundred	

	POLITICAL EMPOWERMENT			Freedom of Expression (FH)	
				Rights of Association (FH)	
				Voice and Accountabil- ity (WB)	
	PSYCHOLOGICAL EMPOWERMENT	Freedom/ choice/ autonomy/in control/ decide own life			Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones. Also Personal Autonomy (FH)
		Hard work brin do not in any statistical sense gs success/it is possible to succeed/you get ahead by what you can do, not who you know			Average of available scores from WVS, AB, AfB, AsB, EB, EQLS, EULFS and/or ESS, picking appropriate years, taking as long a scale as is available (but preferably more than a dichotomy) and translating shorter scales into their equivalent points on longer ones.

Key to source annotations: AB: Arab Barometer AfB: AfroBarometer^{''} AsB: Asian Barometer
 BTI: Bertelsmann Transformation Index EB: Eurobarometer EULFS: European Labour Force Survey
 EQLS: European Quality of Life Survey ESS: European Social Survey FAO: Food and Agriculture Office of the United Nations:
 FH: Freedom House FSI: Fragile States Index GTS: Global Terrorism Scale GWP: Gallup World Poll
 SSA: Social Security Administration[`] TI: Transparency International UNHCR: United Nations High Commission for Refugees
 WB: World Bank – Worldwide Governance Indicators WVS: World Values Survey

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