

Distr.
LIMITED
E/ESCWA/EDID/2016/WP.3
31 October 2016
ORIGINAL: ENGLISH

Economic and Social Commission for Western Asia (ESCWA)

Governance-adjusted Human Development Index

The case for a broader index and its implications for Arab States

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**United Nations
Beirut, 2016**

16-00278

The Human Development Index is “an index just as vulgar as GDP but it stands for better things”

Amartya Sen

Acknowledgments

More than two years ago, a meeting was held at the University of London School of Oriental and African Studies (SOAS) to discuss a report of the Economic and Social Commission for Western Asia (ESCWA) on the future of development in the Arab region. One of the meeting's conclusions was that the Arab region needed a new development vision, supported by a new monitoring framework with a different set of measurement tools. Since then, ESCWA has launched several initiatives to rethink and/or tailor global development indicators to the Arab context. This paper is an extension of this effort.

We are especially thankful to Mrs. Rima Khalaf, United Nations Under-Secretary-General and Executive Secretary of ESCWA for encouraging us to write this paper and for her substantive guidance. We also wish to thank Mr. Abdallah Al Dardari, Deputy Executive Secretary of ESCWA, and Mr. Mohamed El-Hacene, Director of the Economic Development and Integration Division of ESCWA, for their continuous support and constructive feedback. We are also grateful to Mr. Milorad Kovacevic from the Human Development Report Office of the United Nations Development Programme (UNDP) and Mr. Terry McKinley from the Center for Development Policy and Research at SOAS, for their detailed comments on an earlier draft of this paper. This paper also benefited from comments received from two leading regional experts in the areas of human development and governance, Mr. Ali Abdel Gader and Mrs. Noha El Mikkawi, and from technical discussions with our ESCWA colleagues and our students at the Economic Department of the Lebanese American University. We thank them all for their feedback and views. Finally, we wish to thank Mr. Seth Caldwell for research support and Mr. Fouad Ghorra for editorial support.

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Introduction

The Human Development Index (HDI) was first shared at the launch of the *Human Development Report* in 1990. It measured the level of development of countries along three dimensions: longevity, knowledge and living standards. The indicators used were life expectancy at birth, the adult literacy rate and the logarithm of real gross domestic product (GDP) per capita, calculated using purchasing power parity (PPP). This third indicator was given the same weight as the two others.

In the *Human Development Report 1991*, the indicator 'mean years of schooling' was added to the knowledge dimension, and the threshold for the global discounting of real GDP per capita was adjusted. In 1995, the mean years of schooling were replaced by the combined gross primary, secondary and tertiary enrolment ratio. As for the global threshold for discounting real GDP per capita, it was adjusted several times again between the 1991 and 1998 editions. Finally, in the *Human Development Report 2010*, the adult literacy rate was replaced by the mean years of schooling of the adult population (ages 25+) and the combined gross enrolment ratio was replaced by school life expectancy, renamed 'expected years of schooling' at the school-entering age. Also, a natural logarithmic transformation was adopted for the real gross national income (GNI) per capita, instead of GDP per capita.

This paper approves of the HDI in its current form but aims to include a dimension on achievements in governance, in addition to the longevity, knowledge and living standards dimensions. The aim is to expand the existing index and to capitalize on its many strengths rather than to propose a new one, in order to capture human development in terms of a broad spectrum of enhanced capabilities, as captured in Sen (1999). Sen defines five instrumental freedoms contributing to human development: *political freedoms*, including "the political entitlements associated with democracies in the broadest sense"; *economic facilities*, in the sense of the "opportunities that individuals respectively enjoy to utilize economic resources for the purpose of consumption, or production, or exchange"; *social opportunities* in the sense of "the arrangements that society makes for education, healthcare and so on"; *transparency guarantees* in the sense of "the freedom to deal with one another under guarantees of disclosure and lucidity"; and, *protective security* in the sense of the provision of a "social safety net for preventing the vulnerable sections of society from being reduced to abject misery and in some cases even starvation and death".

As underlined by Sen (1999), these "instrumental freedoms tend to contribute to the general capability of a person to live more freely, but they also serve to complement one another". Accordingly, the paper considers achievements in governance as human capabilities enablers, through the complementarities of political freedoms, transparency guarantees and protective security, in particular. In other words, this paper adds the governance dimension as a proxy for capturing the levels of human freedom and social justice, to complement the economic and social dimensions of the existing HDI. As argued in ESCWA (2005a), good governance leads to better systems of justice, and reduces spatial and gender inequalities, and political instability. *Ceteris paribus*, this induces inclusive economic growth, which in turn leads to better social development, further enhancing the individual capabilities required for maintaining good governance systems, and so on.

The adoption of the Sustainable Development Goals (SDGs) makes a strong case for the inclusion of the governance dimension in the HDI as a measure of progress. The global commitment to monitor governance achievements, particularly through Goal 16 on promoting peaceful and inclusive societies for sustainable development, providing access to justice for all and building effective, accountable and inclusive institutions at all levels, motivates this approach. In the spirit of the SDGs, this paper acknowledges the criticality of sustainability, particularly environmental sustainability, but it opts for not incorporating it into the proposed index due to the lack of any unique indicator that captures sustainability while allowing for cross-country comparisons. The current understanding of sustainability as ensuring "intergenerational justice while maintaining a concern for the poor of each generation" is arguably still incomplete.¹ The definition of the concept has yet to be improved, and an appropriate measure of sustainability created.

¹ Sen and Anand, 1994; Sen, 2013.

Sen (2013) argues that “a fuller concept of sustainability has to aim at sustaining human freedoms, rather than only at our ability to fulfill our felt needs.” There is strong reason to believe that if governance achievements are conducive to human development, sustainability is less likely to be compromised. The governance-adjusted HDI would be consistent with this intrinsic link between human freedoms and sustainability. It would also highlight the complementarities between and within human development dimensions. Indeed, it is possible for countries to improve on the basic quantitative indicators of health, education and income without necessarily achieving much progress on human freedoms and social justice. This imbalance should be reflected in their HDI scores.

This paper conducts analyses at the global level and examines trends focusing on the countries that would be most affected (positively or negatively) by the proposed index. It also draws on the case of the Arab region, where many countries have scored impressive achievements in the Millennium Development Goals (MDGs) and the HDI yet have witnessed major governance setbacks. The MDGs, it should be recalled, did not include any goal on governance and MDGs progress in Arab countries, as captured by a progress index (MDGI) in the 2013 regional progress report,² was relatively impressive, with the average regional MDGI rate outpacing that of the other developing regions.

Progress in the HDI in its current form was also impressive for several Arab countries. The *Human Development Report 2010* showed that five of them, namely Algeria, Morocco, Oman, Saudi Arabia and Tunisia, were among the ten ‘top movers’ that had seen the greatest improvements in the HDI since 1970. Egypt, Libya and the United Arab Emirates also appeared in the list of the twenty ‘top movers’ during that period. The 2010 global report stated that “regardless of how we measure it, the performance of these countries in health and education indicators has been stellar.” For example, in 1970, a baby born in Tunisia could expect to live 54 years; one born in China 62 years. In 2010, life expectancy in Tunisia had risen to 74 years, surpassing life expectancy in China by one year, while per capita income grew almost three times more in China than in Tunisia. Tunisia had also significantly outperformed China on the education front during that period.

While being technically correct, the above analysis disregards the importance of the governance aspect. As the United Nations and League of Arab States (2013) acknowledged, there are major gaps in governance in the Arab region that led to regressions in the quality of health and education, and in social justice. Indeed, only a few months after the publication of the *Human Development Report 2010*, the Arab uprisings began in Sidi Bouzaid, a city in the center of Tunisia, not because of abject poverty or lack of education and health services, but due to the lack of economic opportunities, social inequalities and human rights abuses. These were also the root causes of uprisings in other Arab countries, such as Egypt and the Syrian Arab Republic, where progress in basic education and health was quite remarkable but failed to translate into broader human development gains. Today, the Arab region is engulfed in internal conflicts, which were triggered by social injustice and infringements of basic human rights. The HDI, lacking a measure of good governance, could not properly reflect the situation of most Arab countries.

Against this backdrop, this paper proposes a governance-adjusted human development index (GHDI), to better measure human development achievements. This additional dimension is measured by proxy indicators that capture human freedom and social justice. The GHDI scores are calculated for all countries for which data are available (see annex tables for detailed results). The paper compares HDI and GHDI scores, showing the impact of the added dimension on country scores and ranks. The results are then analysed with reference to the development challenges in Arab countries.

² United Nations and League of Arab States, 2013.

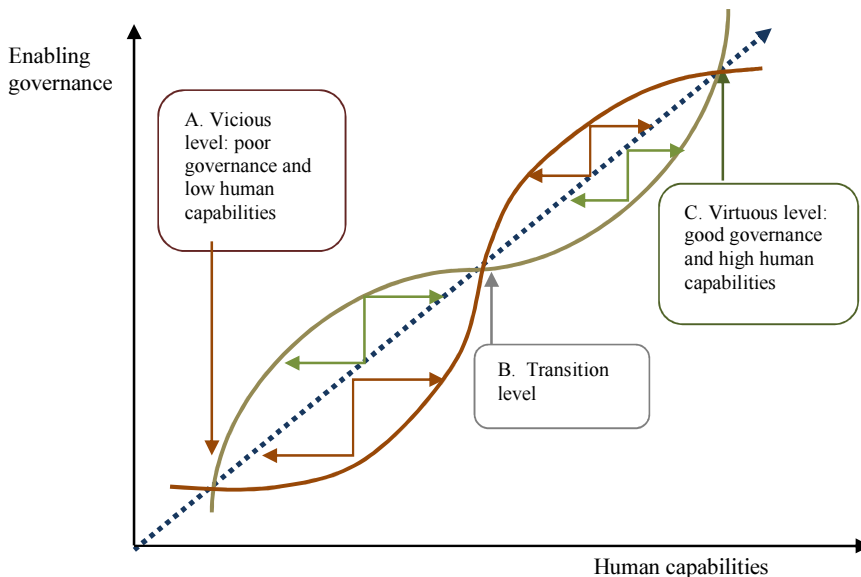
1. Framework

The GHDI is conceived as a measure of human development that considers achievements in governance, in terms of respect for human freedoms and realization of social justice, in addition to achievements in income, health and education. The links between health, education and income status on the one hand, and human capabilities on the other, are well established in the literature on human development. The discussion here will thus focus on linking governance achievements with human capabilities.

1.1 Governance and human development

An enabling, people-empowering governance is both an end and a means. For example, democracy is key to enable citizens to exercise their freedom of choice and have a voice in decisions that affect their lives and wealth. True democracy, in turn, is realized only when citizens are empowered. Therefore, an enabling governance embeds the concepts of human freedom and social justice as both *intrinsic* and *instrumental* capabilities in the human development framework. As stated in the first *Human Development Report*, “human development is incomplete without human freedom”. Any index of human development should therefore give adequate weight to human freedom in the pursuit of material and social goals.³

Figure 1. Links between an enabling governance and other human capabilities



In figure 1, two curves (S-shaped and reverse S-shaped) represent two alternative paths through which a country can adopt an enabling governance system while enhancing other human capabilities. The S-shaped curve shows the effect of human capabilities on achievements in governance. It indicates that at very low levels of human capabilities, improvement of such capabilities has a limited effect on governance: for instance, if a large share of a country’s population lacks education, a unit increase in the educational achievement rate will not have a decisive effect on improving governance. As human capabilities grow, this effect gradually increases; then the country is bound to reach a certain point beyond which it would be difficult to further improve governance. The reverse S-shaped curve represents the effect of governance on achievements in human capabilities. When governance is very poor, a unit increase in its level is unlikely to have a significant effect on increasing human capabilities. As governance improves, its effect on human capabilities becomes more significant, until a certain point. The 45 degree line is another illustration of the correspondence between

³ Desai, 1991. A similar interdependency between corruption and human capabilities is described by Tran (2007).

an enabling governance and other human capabilities. Perhaps India can be taken as an example of a country that has developed human capabilities and quality of governance at similar rates.

The top end of the illustration may be referred to as the ‘virtuous levels’ where high human capabilities coexist with high achievements in governance, such as in the Nordic countries. At such high levels, it becomes difficult to further improve governance or other human capabilities. The strong feedback effect between the two sustains the high level if there is a temporary setback in any of the dimensions. The bottom end of the illustration may be referred to as the ‘vicious levels’ in which several of the least developed countries are trapped, for example countries in sub-Saharan Africa. At such low levels, it becomes difficult to sustain any improvement in governance or human capabilities, and countries may remain trapped. A significant change in either dimension is required to improve along the curve to higher levels.

Following the paths in more detail, one can see that if a country is to be moving along the S-shaped curve, an initial large increase in human capabilities is required to induce a unit increase in the quality of governance. After a certain point, particularly when the society acquires considerably high human capabilities, a further unit increase in those will lead to stronger gains in governance, up to the plateau where both indicators are near their maximum levels. Any departure from this situation may be possible in the short term but may not be sustainable in the long term. This path represents the authoritarian development model, which may be at work in countries such as China and in most Arab countries.

Alternately, if a country is moving along the reverse S-shaped curve, initially, a large improvement in governance is required to induce a unit increase in human capabilities. When a high level of enabling governance is achieved, a unit increase in human capabilities requires relatively less improvement in governance, up to the plateau where both indicators are near their maximum levels. South Africa could be taken as an example for such a path, as well as smaller countries such as Botswana and Rwanda, where recent achievements in the quality of governance are more important than progress in other human development indicators.

The intersection of the two curves in the illustration represents the point of transition (B), which is the position of many countries in reality. They can either move to virtuous levels (C), such as in the case of most Eastern European countries that have joined the European Union, or they may fall back to vicious levels (A), such as in the case of Libya or the Syrian Arab Republic. At lower levels of human capabilities, a variety of other factors have a strong influence on both dimensions, which could lead to a less coherent linkage. For example, official development assistance (ODA) and interventions of non-governmental organizations may accelerate progress on health goals (such as reducing Malaria in Africa for example), conflict may cause sudden and dramatic reversals on achievements in both indicators, access to the Internet may make it significantly cheaper to advance education to remote areas, etc.

The link between an enabling governance, particularly democracy, and human development is well documented.⁴ While acknowledging the importance of strong empirical findings, this paper focuses on introducing a measure of ‘enabling governance’ in the set of a country’s human development achievements. Its relationship with income per capita or the current HDI or other development measures is an empirical issue, which will not be debated. Nevertheless, as stated in the *Human Development Report 1990*, “the valuation we put on similar human development achievements in different countries will be quite different depending on whether they were accomplished in a democratic or an authoritarian framework”. Further, the links between measures may serve to describe the possible development trajectories that countries may take, but not to explain why some countries will follow a specific path and others a different one, or why some countries regress into conflict. These issues require further analysis and discussion.

⁴ See Acemoglu, Johnson and Robinson, 2001; Easterly and Levine, 2003; Hall and Jones, 1999; Rodrik, Subramanian and Trebbi, 2004.

1.2 Which ‘enabling governance’ indicators?

An enabling governance is construed here as one that upholds and promotes human freedoms and social justice. The link is grounded in conceptual bases rather than in empirical data. There are several difficulties associated with defining and measuring human freedoms and social justice. However, there has been recent progress in measuring governance thanks to the Worldwide Governance Indicators (WGI) project, which defines it as the “traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the State for the institutions that govern economic and social interactions among them”.⁵

The WGI project produced six aggregate indicators for six dimensions of governance in 215 countries over the period 1996-2014. The dimensions are: voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; rule of law; and control of corruption. The pros and cons of that approach have been widely discussed. The purpose of this paper being to capture indicators of an ‘enabling governance’ that upholds human freedoms and social justice, and not governance in its entirety, two indicators of the WGI dimensions have been selected: voice and accountability, and rule of law.

The voice and accountability (VA) index can be interpreted as a proxy indicator of human freedoms, which captures “perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.”⁶ In the same spirit, the rule of law (RL) index can be interpreted as a proxy indicator of social justice, which captures “perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence”.⁷

A society with higher voice and accountability enables the participation of citizens in selecting their leaders and holding them accountable. Free choices of participation and association in any field, and freedom of expression, are core attributes of human freedoms as well. Further, as developed in Sen (1999), human freedoms cannot be guaranteed if the justice system or the rule of law does not protect the most vulnerable. Sen also argues that lack of access to justice is a central dimension of poverty. In this sense, rule of law is a normatively described legal and political order, a state of human security and an outcome of justice.⁸ Equitable implementation of the rule of law is central to a development friendly environment. Therefore, conceptually, achievements in voice and accountability and rule of law complement each other, and, ideally, both indicators should move together in any society.

However, in some cases, the two indicators show contrasting patterns. For example, some countries with autocratic governments may have low scores of voice and accountability but high scores of rule of law. Part of it may be explained by the fact that the indicator is based on the perceptions of people, and often people link rule of law to government effectiveness. Autocratic governments can indeed be very efficient, for instance when making a choice for universal vaccination; but they can be just as efficient heading down a detrimental developmental path.⁹ Government effectiveness is a functional feature that is less embedded in the society compared with other, deeper institutional features, such as the rule of law.¹⁰

⁵ <http://info.worldbank.org/governance/wgi/index.aspx#doc>.

⁶ Kauffman, Kraay and Mastruzzi, 2010.

⁷ Ibid.

⁸ Sen, 2000.

⁹ Collier and Hoeffler, 2009.

¹⁰ Williamson, 2000.

1.3 Construction of the GDHI

The GHDI is constructed based on the HDI technique and dimensions (economy, health and education), with governance as an added fourth dimension, measured through voice and accountability and rule of law (table 1). The first added indicator captures political participation, as well as freedom of expression, of association and of the media. Rule of law captures perceptions of the extent to which citizens have confidence in and abide by the rules of society, in particular quality of contract and property rights enforcement, quality of the police and the courts, and likelihood of crime and violence. Both measures are obtained from the WGI dataset, based on the work of a number of survey institutes, think tanks, non-governmental organizations, international organizations and private sector firms.¹¹

First, the scales of all variables are unified: all scores are subtracted from their fixed maximum values to create a new score where a higher value is better. Secondly, all scales are standardized, which implies taking a transformation of $(\text{value} - \text{minimum})/(\text{maximum} - \text{minimum})$. The result yields two indices. Their geometric average yields our Governance Index (GI).

We then undertook a robustness test to ensure the consistency of our main assumption that government effectiveness is sufficiently explained or ‘proxied’ by those two indicators: we added the government effectiveness indicator of the WGI to our GI index, using the same method. We then tested the correlation between the simple and expanded GI, and the result was near perfect correlation (0.98). Adding the government effectiveness indicator has thus no value added to the explanatory power of the GI index.

Table 1. Components of the GDHI

Pillar	Weight (%)	Indicator	Data source
Economy	100	GNI per capita, at PPP (constant 2011 international dollars)	World Bank
Health	100	Life expectancy at birth, total (years)	UNDP
Education	50	Mean years of schooling for adults (years)	UNDP
	50	Expected years of schooling for children (years)	World Bank
Governance	50	Voice and accountability	World Bank
	50	Rule of law	World Bank

2. Main Results

This section presents the new index results and draws some key stylized facts from the empirical findings. Our hypothesis is that the inclusion of the governance pillar will have a considerable effect on HDI country scores and rankings. We will thus study the statistical correlation between the HDI and the GI constructed to form the GHDI. We will also try to answer the following questions: Which countries have the highest GHDI scores and did they also lead on the HDI? What do cross-country data reveal about the relationship between governance (as measured by the GI) and human development (as measured by the HDI)? Are there significant changes in country scores and rankings when comparing the GHDI with the HDI? Which countries or groups of countries are most affected by the addition of the governance dimension and why?

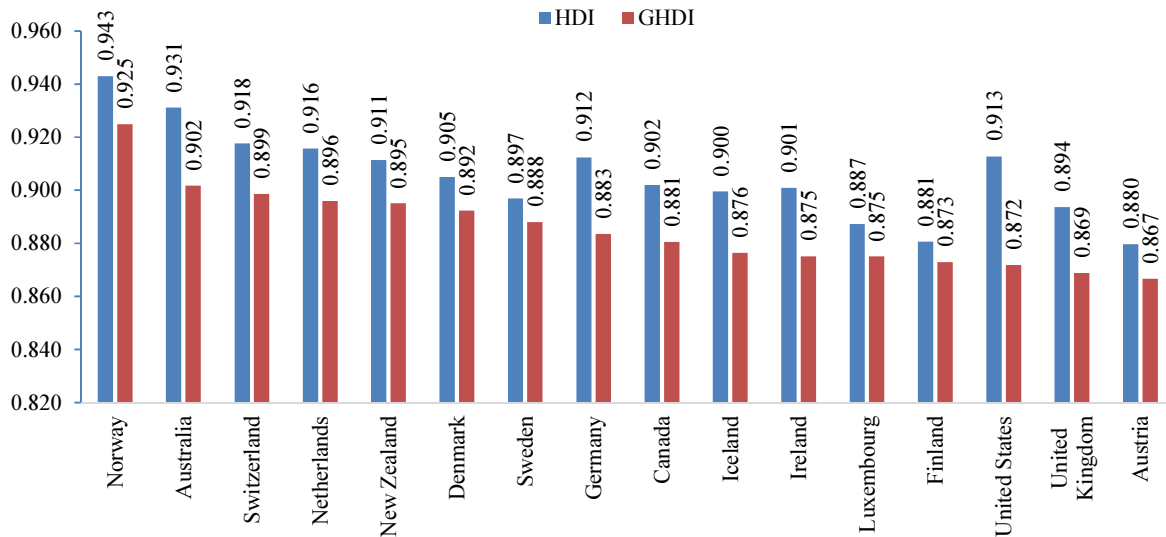
2.1 Countries with the highest HDI scores take the lead in the GHDI

Adding the governance dimension does not significantly affect the HDI scores of the best performing countries, such as Norway, Australia and Switzerland. They show high levels of voice and accountability and rule of law, hence this result is not surprising.

¹¹ For more details on the construction of the governance indices, see World Bank, 2015b.

Other high-ranking countries have lower scores in the GHDI compared with the HDI. This suggests that there is more to be done on good governance even in the most economically and socially advanced societies. It is clearly the case for the United States of America, which has the highest gap between its HDI and GHDI scores among the top-ranking 15 countries in the GHDI.

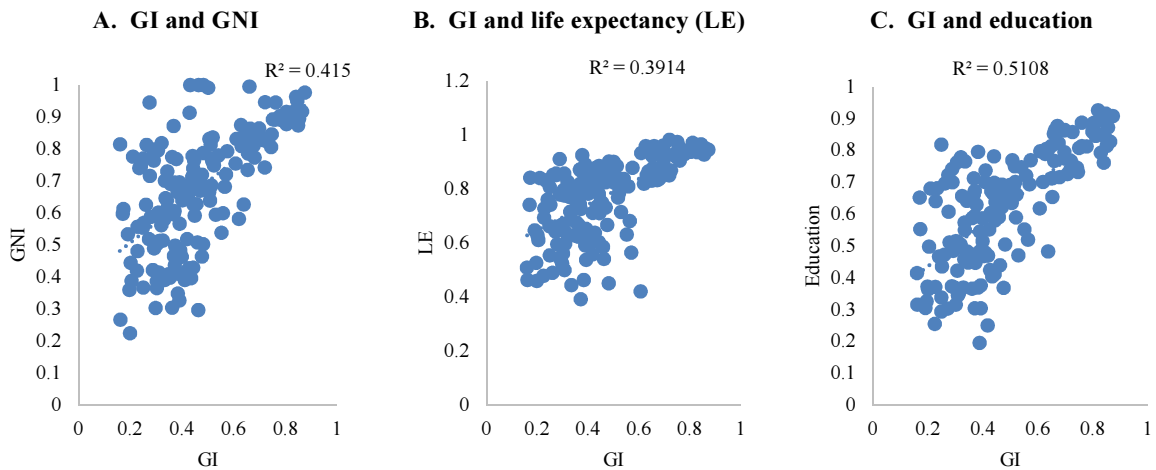
Figure 2. Scores for the top-ranking 15 countries in the GHDI, 2013

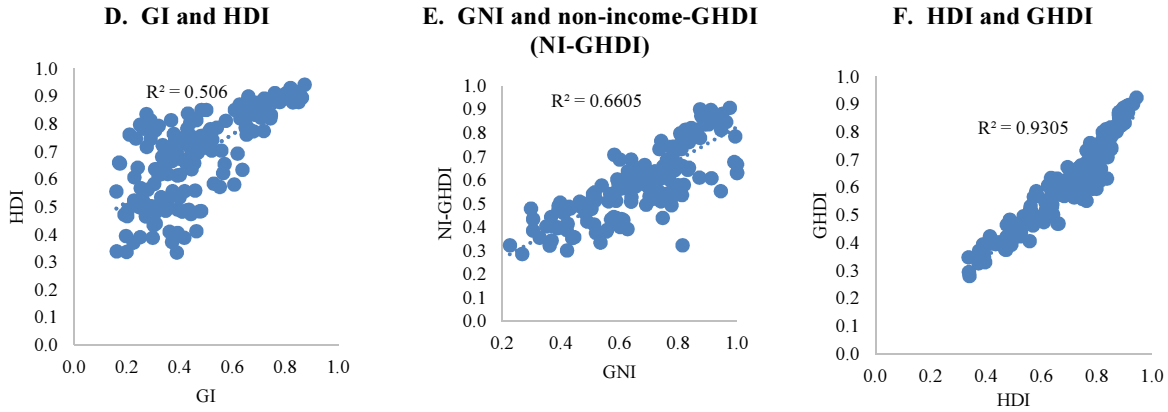


2.2 The link between governance and human development is more robust at higher levels of governance

As discussed previously, when human capabilities increase from an initially low level, their effect on governance gradually increases, until a point beyond which it would be difficult to achieve further improvement. The pattern is similar in the case of governance and human development: at low levels of human development, governance improvements have a far more significant impact on health and education than at significantly high levels. Therefore, the relationship between the GI and the HDI is expected to vary along the varying levels of HDI and GI.

Figure 3. Correlations between human development indices and components, 2013





The results shown in figure 3 appear to lend support to the theory that the relation between governance and human development depends significantly on a country’s circumstances. They also yield the following stylized facts.

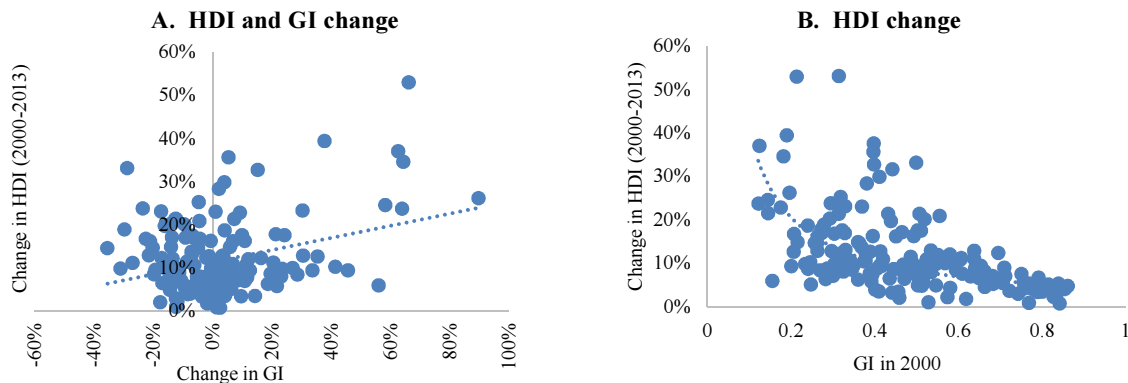
First, all countries with a very high score on the GI (above 0.8) have a notably higher than average GNI, but not all countries with very high income have good governance (figure 3A).

Secondly, countries with a score of high or above on the GI have significantly better education and life expectancy outcomes (figure 3B and 3C). The difference between these countries and the rest of the sample is especially remarkable in the case of education, which has the highest correlation with the GI.

Thirdly, in consistency with our conceptual framework, there seems to be considerably higher variation in correlations for countries at medium and low levels of the GI. Figure 3D, where the HDI is plotted against the GI, shows that the relationship is generally positive, but there is a large deviation from the regression line for countries with GI scores below 0.65. The clustering of countries with a higher score around the regression line suggests that the synergy between good governance and human development is then maximized, enabling high achievements, especially in health and education. This result can be verified in figure 3E, where GNI per capita is plotted against the non-income GHDI, a geometric average including only the health, education and governance dimensions. The positive correlation between the two variables implies that, on average, countries with higher income have better non-income GHDI, but unlike in the case of the HDI, there is more variation around the regression line for countries with very high GNI per capita.

Fourthly, the correlation between the HDI and the GHDI is naturally very high, given the large number of variables they have in common (figure 3F). However, it is not perfect. Some countries, especially those who have a high to very high score on the HDI (between 0.7 and 0.9), do not necessarily have the same level of scores on the GHDI, as shown by the slightly convex shape of the plot. The majority of Arab countries belong to this group of countries with medium to high HDI scores, and not as high GHDI scores.

Figure 4. Changes in governance and human development indicators, 2000-2013



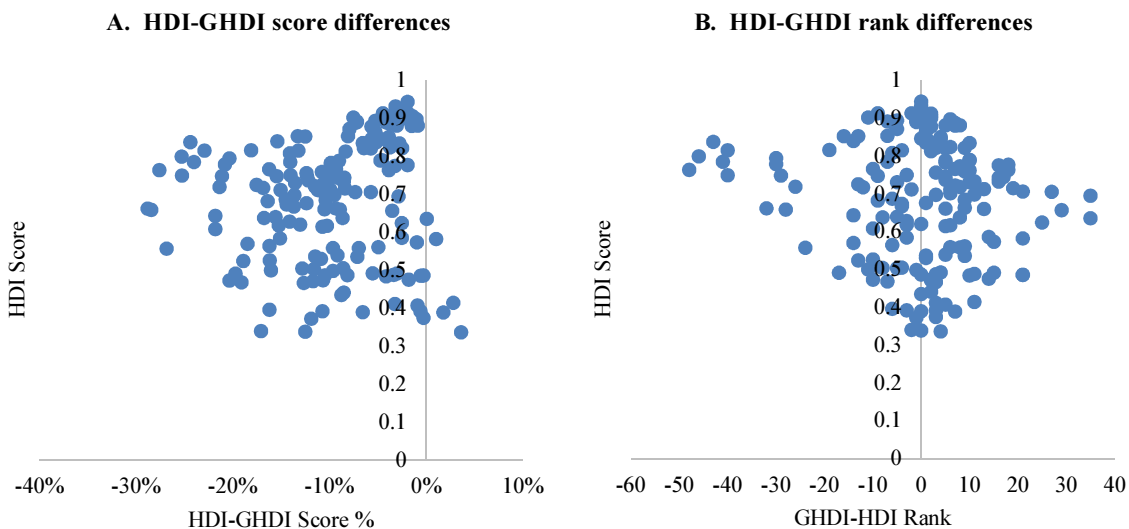
If improving governance is indeed the best way to improve health and education, we expect that the changes over time in human development indicators would reflect that. Figure 4 indeed finds a positive correlation between changes in the HDI and the GI over the period 2000-2013, which is more obvious in the case of countries that witnessed an improvement in their GI scores. However, the figure does not indicate a strong correlation. Countries that scored impressive gains in the GI were not always rewarded in terms of their human development progress, nor were countries with a visible deterioration on the GI consistently penalized. There are plenty of examples to the contrary. The relationship, it seems, depends on countries' circumstances and their initial level of human development, as stated in our conceptual framework. This is precisely what is shown in figure 4B: some of the countries at a low level of governance in 2000 showed significant progress in HDI while others did not. The variation is quite significant among countries that had a GI score below 0.65 in 2000.

The fact that some of the highest HDI country score improvements were achieved by countries with low governance does not contradict our theoretical framework. At very low levels of the HDI, it may be possible to achieve significant gains in human development through means other than governance reforms. Interventions by international organizations, for example in the field of health, may significantly prolong life expectancy. Some countries may also be led by "good" autocrats. Thus, at lower levels of human development and governance, variations in country performances are expectable.

2.3 Rank gains by Small Island States, South Africa and Brazil—rank losses by oil-rich and authoritarian States

There are significant score and rank differences between the HDI and the GHDI. The comparison in figure 5 shows that the majority of countries have a GHDI score that is 10-20 per cent less than their HDI score. A small number of countries at the right side in figure 5A are the exception, reporting higher GHDI than HDI scores. The inclusion of governance does not favour any particular group of countries as there is virtually no relation between the change in score or rank (figure 5B) and the HDI score. The fact that score and rank differences between the two indices are not correlated with the level of human development is somewhat contrary to intuitive thinking, as it implies that countries with higher/lower income, health and education levels are not disproportionately better/worse off when governance is included in the assessment.

Figure 5. Score and rank differences between the HDI and GHDI, 2013



This, however, does not imply that there are no similarities between the countries that gain or those that lose the most in the move from HDI to GHDI. Figure 6 shows the top-15 rank winners and the top-15 rank losers, which show some similarities. Among the winners are Samoa and Cape Verde, with a 35 rank difference, followed by South Africa (29) and Tonga and Namibia (27 and 25 rank differences, respectively). Botswana, Lesotho, Senegal and Suriname are not too far behind with a gain of 21 ranks. Compared with the sample average, rank winners, most being Small Island States, have relatively better scores in governance (exceeding the sample average by 8 per cent) and poorer ones in education (5 per cent under the sample average). They are close to sample averages in all other categories.

Figure 6. From the HDI to the GHDI: ranking differences, 2013

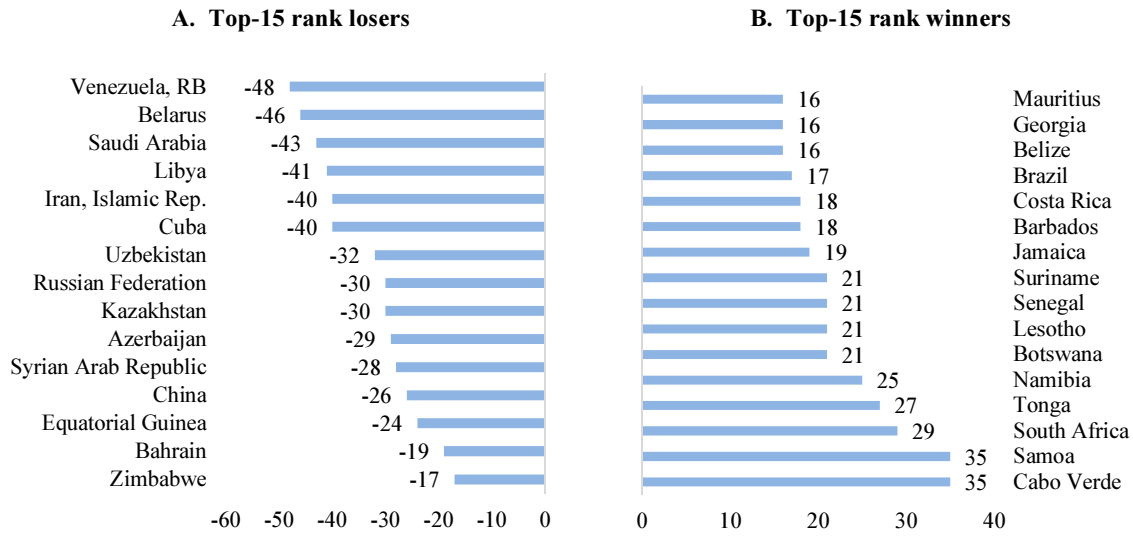
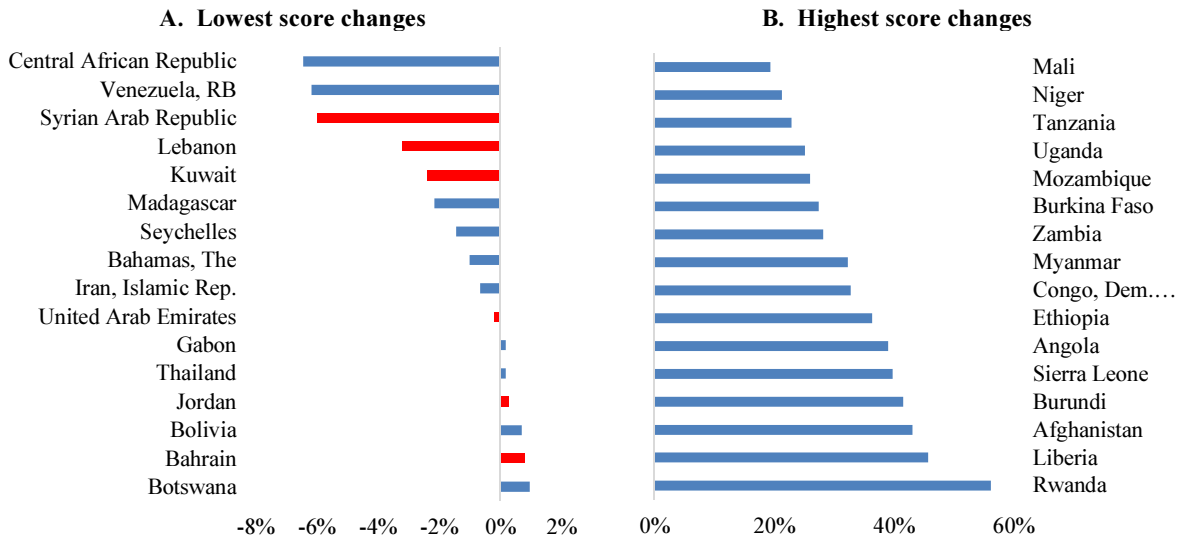


Figure 7. Score changes in the GHDI from 2000 to 2013



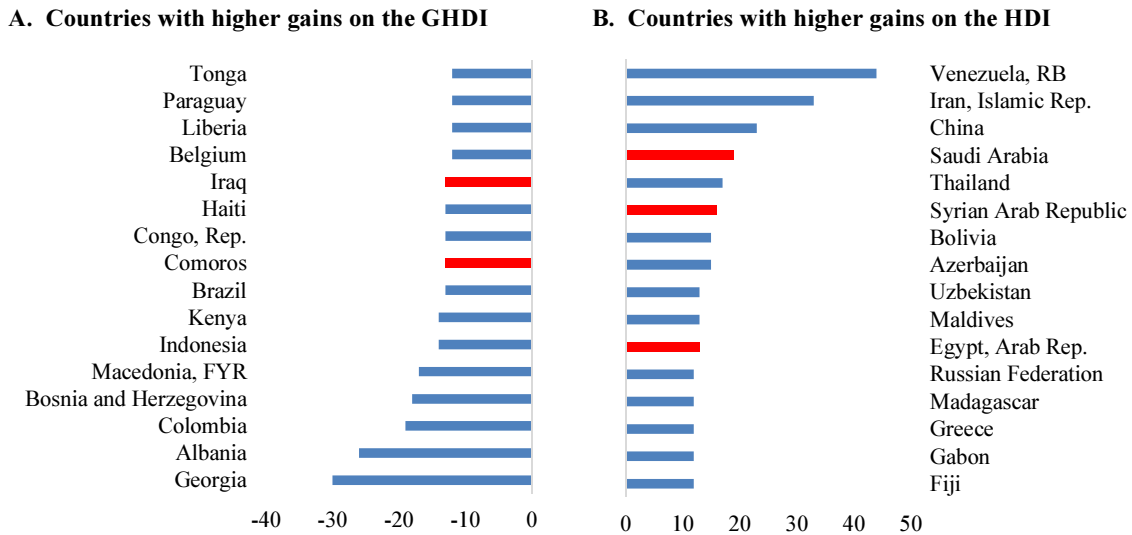
On the other end, the countries incurring the largest drops in ranking are Venezuela, Belarus and Saudi Arabia, with a decline of 48, 46 and 43 ranks, respectively. Countries that lose ranks in the move from the HDI to the GHDI generally have poor governance scores (38 per cent beneath the sample average), but, at the same time, score better than the sample average on education and income (by 11 per cent and 6 per cent, respectively).

A majority of those countries is oil rich, and a high majority is governed by authoritative regimes. There is also a notable presence of Arab countries in this group.

Figures 7A and 7B show the top 16 and bottom 16 countries in terms of GHDI score changes between 2000 and 2013. What the countries most exceeding the sample average change have in common is their good progress on governance (0.34 compared with the sample's 0.02), and their doubling or tripling of sample progress on income, education and health. The countries with the lowest score changes in the GHDI do exceptionally bad on governance, as they regress by 0.21 (compared with an increase of 0.02 for the sample), and have considerably lower than sample increases in income and education. There are several Arab countries in this group.

It is also interesting to compare assessments of human development progress based on the GHDI and the HDI. For that purpose, rank changes between 2000 and 2013 are first calculated for both the HDI and the GHDI (a positive rank change means a regression in ranking and vice versa). Secondly, the rank changes are compared by subtracting the HDI rank change from the GHDI rank change. Figures 8A and 8B show the largest deviations: a positive one indicates that a country progressed more on the HDI than on the GHDI, and a negative deviation indicates the opposite.

Figure 8. Rank changes in GHDI versus HDI, 2000-2013



The results are in line with the previous stylized facts based on 2013 data. Oil-rich and authoritarian countries do significantly better on the HDI than on the GHDI (with Venezuela, Iran and Saudi Arabia having the largest difference between rank changes over time in the two indices). Countries that have ended conflicts and/or instigated processes of political reform and democratization during the late 1990s and 2000s do better on the GHDI than on the HDI. Four such European countries (Georgia, Albania, Bosnia and Herzegovina, and Macedonia) are among the five with higher gains on the GHDI. Interestingly, two Arab countries, Iraq and the Comoros, are among the top 15 countries with higher gains on the GHDI.

3. A Regional Perspective

The results in the previous section showed that most countries with significant oil resources were adversely affected by the inclusion of governance in the measure of human development. Many Arab countries belong to this category, so it is likely that the adoption of the GHDI would significantly change the regional development narrative.

3.1 GHDI and HDI scores and rankings for Arab countries

Arab countries' governance scores support the general perception of poor governance performance in the region. In 2013, the highest ranking Arab countries on the GHDI were Qatar and Tunisia, and the lowest was the Syrian Arab Republic. The regional average was below 0.400, reflecting low governance quality.

Table 2. GHDI and its components, Arab countries, 2013

Country	GNI	Education	Life expectancy	GI	Non-income HDI	HDI	GHDI
Qatar	1.000	0.687	0.902	0.482	0.787	0.852	0.739
United Arab Emirates	1.000	0.673	0.879	0.430	0.769	0.839	0.710
Kuwait	1.000	0.646	0.838	0.462	0.735	0.815	0.707
Oman	0.913	0.604	0.875	0.428	0.727	0.784	0.674
Bahrain	0.872	0.713	0.872	0.367	0.789	0.815	0.668
Jordan	0.715	0.699	0.829	0.441	0.762	0.746	0.654
Lebanon	0.769	0.630	0.925	0.377	0.763	0.765	0.641
Tunisia	0.702	0.622	0.825	0.468	0.717	0.712	0.641
Saudi Arabia	0.945	0.723	0.857	0.273	0.787	0.837	0.633
Algeria	0.730	0.642	0.785	0.342	0.710	0.717	0.596
State of Palestine	0.596	0.663	0.819	0.367	0.737	0.687	0.587
Average	0.724	0.556	0.790	0.348	0.660	0.679	0.572
Egypt	0.702	0.574	0.787	0.333	0.672	0.682	0.570
Morocco	0.640	0.469	0.783	0.400	0.606	0.617	0.554
Iraq	0.747	0.467	0.761	0.240	0.596	0.643	0.503
Syrian Arab Republic	0.613	0.553	0.842	0.173	0.682	0.658	0.471
Comoros	0.410	0.449	0.629	0.347	0.531	0.487	0.447
Mauritania	0.513	0.351	0.639	0.312	0.474	0.486	0.435
Yemen	0.555	0.339	0.663	0.248	0.474	0.500	0.419
Djibouti	0.519	0.304	0.643	0.271	0.442	0.467	0.407
Sudan	0.534	0.306	0.647	0.190	0.445	0.473	0.377

Table 2 features Arab countries classed in four performance groups as in the UNDP Human Development Reports (groups are highlighted in different colours). Very high (0.800 and above) and high score levels (0.700-0.799) are shaded in green and purple, respectively. Medium score levels (0.550-0.699) are shaded in brown and low score levels (below 0.550) are shaded in red.

Based on the HDI, in 2013, five Arab countries (Qatar, United Arab Emirates, Kuwait, Bahrain and Saudi Arabia) were at a very high human development level and another five were at a high human development level (Oman, Jordan, Lebanon, Tunisia and Algeria). With half of the Arab countries included in this study classified at a high or very high human development level, and two others (Egypt and State of Palestine) on the brink of the high human development threshold, it is not surprising that the average score for all 20 Arab countries included (0.679) is close to the high development threshold on the HDI.

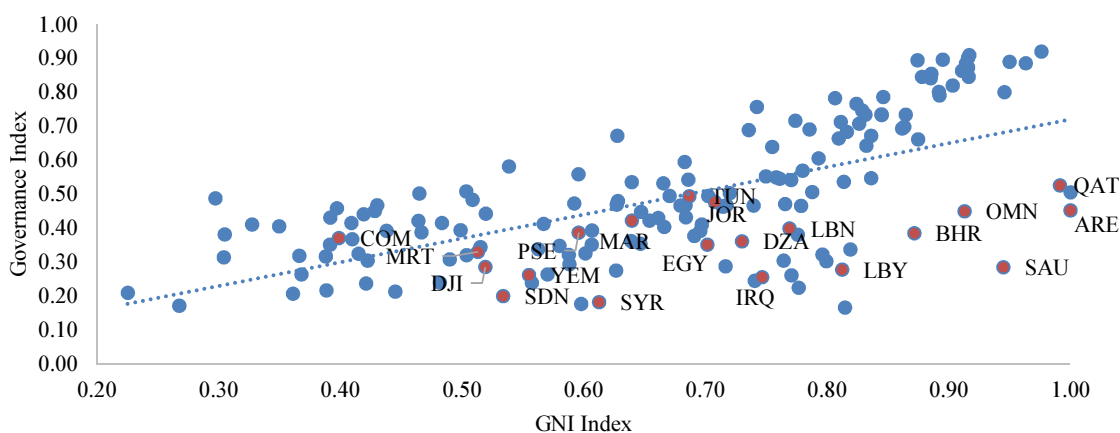
Based on the GHDI, however, no country achieves a very high level of human development, and the average score for the 20 Arab countries included in this study (0.587) is closer to that of the low human development category. The highest-ranking Arab country on the GHDI remains Qatar, followed by the United Arab Emirates, Kuwait, Oman, Bahrain and Jordan. Only the first three countries reach the high human development level.

Table 3. HDI, GHDI and component rankings, Arab countries, 2013

Country	GNI	Non-income HDI	GI	HDI	GHDI	Rank difference: GNI-HDI	Rank difference: HDI-GHDI
Tunisia	85	88	70	86	73	-1	13
Morocco	103	116	99	116	110	-13	6
Jordan	82	66	86	72	67	10	5
Comoros	152	135	121	144	141	8	3
Djibouti	131	158	148	154	151	-23	3
Mauritania	133	152	132	145	145	-12	0
Kuwait	1	81	73	45	49	-44	-4
State of Palestine	116	80	116	95	101	21	-6
Oman	17	85	91	53	60	-36	-7
Average	74	95	115	87	95	-13	-9
Sudan	76	98	118	90	98	-13	-9
Egypt	86	105	126	97	106	-11	-9
Lebanon	65	64	109	62	72	3	-10
Yemen	127	151	154	138	149	-11	-11
Algeria	77	92	122	84	96	-7	-12
United Arab Emirates	1	60	90	34	48	-33	-14
Iraq	72	117	155	107	121	-35	-14
Qatar	1	52	65	29	45	-28	-16
Bahrain	29	50	115	43	62	-14	-19
Syrian Arab Republic	110	102	166	105	133	5	-28
Saudi Arabia	11	51	147	35	78	-24	-43

The difference between Arab countries' HDI and GHDI performance is also reflected in country rankings (table 3). These first drop in the move from the GNI to the HDI column, reflecting the fact that Arab countries are generally richer than they are developed. GHDI rankings are also generally lower than HDI ones, indicating that governance is of lower quality relative to the human development level in most Arab countries, except for Tunisia, Morocco, Jordan, Comoros and Djibouti, which gain ranks in the move from the HDI to the GHDI. Rank losses between the HDI and the GHDI range from 43 for Saudi Arabia to 0 for Mauritania. The former, ranked at an impressive 11 out of 169 countries for its level of GNI per capita, is thirty-fifth in the HDI and seventy-eighth in the GHDI. Conversely, Tunisia, ranked eighty-fifth on the GNI, is seventy-third in the GHDI. Based on the HDI, Saudi Arabia (thirty-fifth) is far more advanced than Tunisia (eighty-sixth), but based on the GHDI, Tunisia is five ranks ahead.

Figure 9. GNI and GI, Arab countries, 2013



Note: ISO codes are used for country names.

In 2002, the first *Arab Human Development Report* already underlined the lack of freedom and poor governance in the region. However, it would be false to conclude that the deficit is equally shared. The positions of Arab countries below the regression line in figure 9, which plots the values for the GNI and GHDI, illustrate this clearly. Some are at a distance from that line, like the oil-rich Gulf Cooperation Council countries clustered in the lower right quadrant, but other, like Jordan, Morocco and Tunisia, are along the line, and their governance performance is thus closer to the global average at their levels of income.

3.2 HDI and GHDI: contrasting narratives

The results in the previous section show that there are two contrasting human development narratives for the Arab region. According to the first one, the region's record is quite impressive, with half of its countries in the high or very high human development groups in 2013. Its progress over time is deemed even more impressive: according to the *Human Development Report 2010*, five Arab countries were among the ten top progress achievers since the creation of the HDI.

The HDI-based development narrative seems to be reinforced by results in other common development indicators, such as growth in GDP per capita, headcount poverty rate (with the poverty line at \$1.9 per day in 2011 PPP), inequality in income distribution (as measured by the Gini coefficient), and headcount poverty rate according to the Multi-dimensional Poverty Index (MPI). Based on these criteria, Arab countries are described as having low poverty, moderate inequality and high economic growth relative to other developing countries.

A second narrative, based on more in-depth country specific and regional analyses, provides a strikingly different picture. For example, the UNDP Arab Human Development Report series (2004-2009), the 2012 *Arab Development Challenges Report* and several more recent ESCWA studies,¹² argue that these global measures do not necessarily reflect development realities in many middle and upper-middle-income developing countries, due to their 'one size fits all' approach. They undermine the fact that the region's high average economic growth over recent decades did not significantly improve incomes of the poor, nor did it generate enough decent jobs for the educated labour force. The weak growth-employment-poverty relation lies at the heart of the challenges of human well-being in the Arab region. In addition, the global development measures deflect attention from the political and governance problems in the Arab region. GHDI results corroborate this assessment.

An important question, however, is not whether Arab countries have a governance deficit, rather what are its drivers and root causes. Many theories have been put forward to provide an answer to that question. In our perspective and in many other studies on the political economy of development in Arab countries,¹³ the principal culprit is the implicit social contract based on transfers in exchange for suppression of political participation and public accountability, popularly called the "authoritarian bargain". The coexistence of a relatively high average income and low participation and accountability is perpetuated by rentier-based economies, in which there is a concentration of political and economic power in the hands of the elite. This weakens incentives for upholding the rule of law or promoting participation and accountability.

As most Arab economies rely on oil revenue and remittances, and, to some extent, on international aid, governments can promise political and economic reforms while remaining unaccountable for delivery on their promises, particularly to the poor and marginalized.¹⁴ Lower GHDI than HDI scores and rankings should be analysed in this context.

But while it might be the case that, for oil-rich countries embarking on their development journey in the 1960s and early 1970s, there was little choice but to cement the authoritarian bargain to advance from a very low

¹² ESCWA, 2014a; Abu-Ismaïl and others, 2015; Sarangi, 2015.

¹³ For example in Cammett and others, 2015.

¹⁴ Beblawi and Luciani, 1987.

base of human development, it is not at all clear why other Arab countries, such as Algeria, Egypt, the Syrian Arab Republic and Tunisia which had a more diversified economic base and strong institutions, opted for such a seemingly unnecessary trade-off.

This apparent paradox might be read in three different ways: first, although more diversified than their oil-rich neighbours in the 1970s, Mashreq and North African Arab countries did not have a sufficiently strong human resources base or the government effectiveness levels that allowed countries like Japan and South Korea to launch their successful modern industrialization programmes. The unsustainability of many public sector-led industrialization programmes and import substitution policies in these Arab countries is often pointed out as evidence for this argument.

Secondly, some authors argue that regional conflicts, most notably the Arab-Israeli conflict, played an important role in shaping Arab economies and societies, including by expanding the role of the military, which undermined human development prospects in the Arab region. In contrast, in East Asia, post-Second World War geopolitical and economic arrangements contributed to giving rise to the East Asian ‘miracles’. It is argued that the global players did not want Arab countries like Egypt to emerge into regional economic and military powers.¹⁵

Thirdly, the economic consequences of oil booms made it possible for some countries to avoid structural transformation and rely instead on natural resource rents, ODA and worker remittances. This led to the creation of a class of rentier capitalists with strong political connections, which reaped enormous windfall revenues at the expense of real sector productivity. Inequality in income and especially in wealth has grown significantly even if it has not been captured in official statistics. Privatization and liberal economic policy reforms in the 1990s tightened the alliance between the business sector and the ruling elites. In this context, governance reforms were not perceived as the most sensible policy choice from a political economy perspective, even for the more diversified Arab countries.

The answer to the question of what underlies the governance deficit in the Arab region thus follows from an understanding of the fundamentals of political economy in Arab countries. Between 1970 and 2010, the traditional social contract did in fact produce major human development achievements. Life expectancy and primary and secondary education rates rose along with income per capita in most countries. However, these improvements contributed little to income growth, as productivity growth was minimal. In other words, Arab economies grew but without structural transformation. Jobs were created, but mainly in the informal low-value added sectors. Eventually, this excluded many of the better educated, especially women, from the labour market. Voices mainly of middle-class youth calling for economic reforms and social justice were suppressed. The governance-human development transition depicted in figure 1 as a movement towards transition point B and beyond was therefore halted.

From this perspective, the development prospects for Arab countries depend largely on their strategic policy choices in response to the uprisings. The cases of Libya, the Syrian Arab Republic and Yemen represent the worst possible outcome in the form of a regression in both human development and governance. The stance adopted by oil-rich countries represents a tendency towards a status quo solution maintaining the authoritarian bargain. The cases of Morocco and Tunisia represent an attempt to improve the quality of governance to maximize the potential of human development capabilities developed over the past three decades. A fourth policy response adopted by some countries is to maintain and/or tighten authoritarian rule to further silence dissent, but without undertaking any significant change in economic policy.

Clearly, it is still too early to judge the outcome of these policy reactions. Development results and sociopolitical transitions unfold over decades, not years. Yet, while the authoritarian bargain may be a logical short-term solution to political economy challenges, its long-term development consequences are disastrous, with tensions arising from the inequitable distribution of rent or insufficiency of rents accentuated by poor

¹⁵ ESCWA, 2015a.

governance leading to potential further socioeconomic and political instability. When inequalities are compounded with ethnic and religious extremism, this can result in further wars and conflicts.

In table 4, Arab countries are divided into three governance performance groups, according to their 2000 scores on the two components of the GI. Group 1 are countries that had low (but not very low) voice and accountability (0.350-0.550) and low to medium rule of law (0.350-0.699) scores. It is interesting to note that most countries in this group were spared from the uprisings and, in countries where they did occur (Tunisia and Jordan, to a lesser extent), this did not translate into internal conflict.

Group 2 are countries that had very low voice and accountability and low, but above very low, rule of law in 2000 (except for Bahrain which had a medium-level score in rule of law). Most of these countries were more directly affected by the uprisings, particularly Egypt and Bahrain, and one country, the Syrian Arab Republic, fell into a state of intense conflict.

Group 3 are countries that had very low scores on both voice and accountability and rule of law in 2000. It includes four countries in conflict, with most having already witnessed major internal conflicts in the 2000s. In 2013, their average scores in both components remained below 0.3, nearly half the group 1 level.

Table 4. GI scores, Arab countries, 2000 and 2013

Country	2000		2013		Percentage change	
	Voice and accountability	Rule of law	Voice and accountability	Rule of law	Voice and accountability	Rule of law
Jordan	0.462	0.574	0.337	0.577	-27	1
Kuwait	0.451	0.616	0.370	0.578	-18	-6
Lebanon	0.442	0.473	0.412	0.345	-7	-27
Qatar	0.424	0.618	0.327	0.709	-23	15
Morocco	0.407	0.529	0.356	0.450	-13	-15
United Arab Emirates	0.391	0.645	0.294	0.629	-25	-2
Oman	0.371	0.626	0.300	0.611	-19	-2
Tunisia	0.368	0.470	0.477	0.460	30	-2
Average group 1	0.452	0.554	0.373	0.500	-17	-10
Egypt	0.341	0.497	0.292	0.380	-15	-24
Mauritania	0.330	0.431	0.314	0.311	-5	-28
Bahrain	0.279	0.574	0.236	0.570	-16	-1
State of Palestine	0.270	0.477	0.326	0.412	21	-14
Saudi Arabia	0.203	0.492	0.135	0.553	-33	12
Syrian Arab Republic	0.191	0.426	0.145	0.205	-24	-52
Average group 2	0.269	0.483	0.241	0.405	-10	-16
Yemen	0.346	0.216	0.229	0.268	-34	24
Djibouti	0.335	0.322	0.211	0.349	-37	8
Comoros	0.269	0.224	0.397	0.303	48	35
Algeria	0.258	0.267	0.322	0.364	25	36
Libya	0.182	0.333	0.301	0.227	65	-32
Sudan	0.152	0.199	0.145	0.250	-5	25
Iraq	0.101	0.234	0.281	0.206	177	-12
Average group 3	0.235	0.256	0.269	0.281	15	10
Average Arab region	0.313	0.440	0.296	0.417	-6	-5

An in depth examination shows that the voice and accountability deficit is more severe than the rule of law deficit. In addition, the averages of both indicators have declined over the period 2000-2013, except for group three. This is due to their very low value in the base year rather than to a significant progress in governance quality.

4. Concluding Remarks

Human capabilities are too complex to be captured by any single index and it would be simplistic to attribute the accumulated knowledge or conventional wisdom on human development to any single index. Still, we believe that the proposed GHDI offers a measurement methodology that is consistent with a broad concept of human development.

The gap between development potential and the reality of people's lives can be narrowed down when public policies are deployed to maximize the synergy between economic growth and non-income human development objectives. Good governance can promote the virtuous cycle of growth, political stability and human development.

To establish a direct link between the quality of governance on the one hand and income and/or human development outcomes on the other hand is not an easy task. First, there is the issue of reverse causality. Human development affects governance in as much as governance affects human development. The relationship between them does seem to depend on levels: at very low and very high levels of governance and human development, the link appears to be weak and confusing. It is much tighter at medium levels, where the synergies are maximized before levelling as the countries approach very high levels achieved by Nordic ones.

Second, there can be much debate on the governance factors that influence human development. In this paper we argued that two indicators are key: rule of law and voice and accountability. This does not belittle the importance of government effectiveness, political stability, transparency or corruption. It only underlines that voice, accountability and rule of law are necessary conditions for the establishment of a modern developmental State. The literature and the statistical robustness tests we undertook validate that hypothesis.

Two of our main results are quite intriguing: although the rankings of the top human development achievers did not change significantly when the governance component was included in the assessment, their scores declined. Only seven countries led by Switzerland and Norway retained the very high human development classification. Other advanced countries slipped into the high human development level. The implication is clear. There is very little change at the very top, as our theoretical framework predicts. Still, with a broader development measure, we are further away than we think from our goals.

Moreover, comparing our broader measure of human development with the traditional HDI yields different narratives on human development progress. The governance dimension seems to be an important factor in explaining deviations in broad human development over time. Higher income does not provide a secure pathway to a very high quality of life, whereas good governance, it seems, is a necessary condition for a very high level of (non-income) sustainable human development. This conclusion also seems to be corroborated by other studies on democracy, growth and development.¹⁶

Although there is a very high correlation between the HDI and the GHDI for all 169 countries, this study has shown that the GHDI dramatically changes mainstream development narratives, especially for Arab countries, which are largely affected by the index. Arab countries are relatively richer than the global average and have a higher life expectancy. However, their average educational attainment is low and quality of governance is very low. It is not surprising that they were unable to reap the benefits of economic growth. Rising social and economic inequality and human rights abuses, especially in the context of long-standing ethnic and/or religious rivalries, can easily trigger social and political unrest. This is glaring in the case of the Syrian Arab Republic, for example.¹⁷

¹⁶ See Przeworski, 2004a and 2004b.

¹⁷ ESCWA and University of St Andrews, 2016.

Governance issues should be considered as a basis for understanding the region's past, present and future human development trajectory. Today, the impact of the uprisings and ensuing conflicts on economic growth and destruction of physical assets is quite devastating. Their toll on human development is arguably more severe. Perhaps nothing exemplifies this more than the fact that the region hosts more than 53 per cent of the world's refugees and 37 per cent of all displaced populations, despite accounting for less than 5 per cent of the world's population.¹⁸ Surely in the case of Iraq, Libya, the Syrian Arab Republic and Yemen, external geopolitical factors play an important role in exacerbating conflicts, but the internal governance deficit also paved way for the instigation of a vicious cycle of conflict and de-development. Arab countries that managed to avoid conflict are those which had relatively better governance scores a decade before the 2010 uprisings.

Arab autocracies are ill equipped to address the multiple and serious development obstacles facing the region today. With few exceptions, the policy responses to the uprisings have been offering additional rents (in oil-rich countries) and/or less space for real voice and accountability and other governance reforms (oil-poor countries). Without the establishment of an alternative social contract with a more sustainable and just economic model, these policy reactions are essentially an extension of the very same trajectory that had led to the uprisings.

Development is a complex process with many feedback effects and loops between interdependent factors, including economic and social ones. The starting point for a virtuous development cycle is economic and social justice, with economic and social pro-poor and pro-middle-class policies.

These findings do not underestimate the enormous social progress achieved in most Arab countries since the 1970s. The region has scored some major positive advancements on education and other basic human capabilities. However, the established authoritarian bargain had reached its limits by 2010, when Arab economies failed to meet the expectations of the increasingly educated youth and the middle class.¹⁹ In countries where natural resources abound, the implicit social contract could still remain for some time due to available fiscal space, but this will only make any future transition more painful.

This paper is a contribution to the debate on how human development could be measured in a more holistic manner at the global and regional levels. United Nations Member States recently adopted SDG 16 to "promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels". The GHDI is therefore a timely contribution to ongoing efforts to create measurement and monitoring tools for the achievement of SDGs. The aim here is to pave way for discussion rather than to present a definitive answer to this complex question.

¹⁸ ESCWA, 2015a.

¹⁹ Malik and Awadallah, 2013.

Annex

Table A1. Governance-adjusted Human Development Index Score, 2013

	Country	GNI	EDUC	Health	GOV	NIHDI	HDI	GHDI
1	Afghanistan	0.445	0.365	0.630	0.200	0.479	0.468	0.378
2	Albania	0.683	0.610	0.885	0.442	0.735	0.717	0.636
3	Algeria	0.730	0.642	0.785	0.342	0.710	0.717	0.596
4	Angola	0.626	0.473	0.490	0.260	0.482	0.526	0.441
5	Argentina	0.778	0.782	0.864	0.440	0.822	0.807	0.694
6	Armenia	0.661	0.702	0.839	0.407	0.767	0.730	0.631
7	Australia	0.911	0.927	0.957	0.819	0.942	0.931	0.902
8	Austria	0.916	0.793	0.937	0.829	0.862	0.880	0.867
9	Azerbaijan	0.764	0.701	0.780	0.289	0.739	0.748	0.590
10	Bahamas, The	0.811	0.713	0.847	0.650	0.777	0.788	0.751
11	Bahrain	0.872	0.713	0.872	0.367	0.789	0.815	0.668
12	Bangladesh	0.499	0.448	0.780	0.372	0.591	0.558	0.505
13	Barbados	0.742	0.741	0.851	0.718	0.794	0.776	0.761
14	Belarus	0.770	0.819	0.807	0.249	0.813	0.799	0.597
15	Belgium	0.903	0.813	0.929	0.778	0.869	0.880	0.853
16	Belize	0.686	0.691	0.829	0.513	0.757	0.732	0.670
17	Benin	0.430	0.412	0.604	0.442	0.499	0.475	0.467
18	Bolivia	0.607	0.673	0.726	0.370	0.699	0.667	0.576
19	Bosnia and Herzegovina	0.687	0.654	0.866	0.467	0.753	0.730	0.653
20	Botswana	0.755	0.618	0.422	0.606	0.511	0.582	0.588
21	Brazil	0.749	0.662	0.829	0.523	0.741	0.744	0.681
22	Brunei Darussalam	0.991	0.693	0.901	0.500	0.790	0.852	0.746
23	Bulgaria	0.761	0.751	0.838	0.516	0.793	0.782	0.705
24	Burkina Faso	0.419	0.252	0.558	0.417	0.375	0.389	0.396
25	Burundi	0.304	0.371	0.525	0.297	0.441	0.390	0.364
26	Cabo Verde	0.627	0.483	0.844	0.637	0.639	0.635	0.635
27	Cambodia	0.504	0.496	0.796	0.303	0.628	0.584	0.495
28	Cameroon	0.490	0.486	0.539	0.291	0.512	0.504	0.440
29	Canada	0.912	0.852	0.945	0.819	0.897	0.902	0.881
30	Central African Republic	0.268	0.317	0.464	0.161	0.383	0.340	0.282
31	Chad	0.421	0.256	0.479	0.224	0.350	0.372	0.328
32	Chile	0.806	0.746	0.921	0.743	0.829	0.821	0.801
33	China	0.716	0.608	0.852	0.275	0.720	0.719	0.565
34	Colombia	0.717	0.603	0.830	0.442	0.708	0.711	0.631
35	Comoros	0.410	0.449	0.629	0.347	0.531	0.487	0.447
36	Congo, Dem. Rep.	0.225	0.373	0.461	0.198	0.414	0.338	0.296
37	Congo, Rep.	0.588	0.512	0.596	0.278	0.552	0.564	0.473
38	Costa Rica	0.735	0.655	0.922	0.652	0.777	0.763	0.734
39	Croatia	0.793	0.769	0.879	0.574	0.822	0.812	0.745
40	Cuba	0.799	0.743	0.911	0.288	0.823	0.815	0.628
41	Cyprus	0.844	0.776	0.920	0.696	0.845	0.845	0.805
42	Czech Republic	0.831	0.866	0.897	0.696	0.881	0.864	0.819
43	Denmark	0.916	0.873	0.928	0.855	0.900	0.905	0.892
44	Djibouti	0.519	0.304	0.643	0.271	0.442	0.467	0.407
45	Dominican Republic	0.708	0.592	0.822	0.451	0.698	0.701	0.628
46	Ecuador	0.696	0.595	0.869	0.370	0.719	0.711	0.604
47	Egypt, Arab Rep.	0.702	0.574	0.787	0.333	0.672	0.682	0.570
48	El Salvador	0.647	0.553	0.805	0.423	0.667	0.660	0.591
49	Equatorial Guinea	0.815	0.416	0.509	0.159	0.460	0.557	0.407
50	Estonia	0.824	0.858	0.868	0.726	0.863	0.850	0.817

Table A1. (continued)

	Country	GNI	EDUC	Health	GOV	NIHDI	HDI	GHDI
51	Ethiopia	0.388	0.316	0.671	0.301	0.461	0.435	0.397
52	Fiji	0.646	0.766	0.768	0.335	0.767	0.725	0.597
53	Finland	0.895	0.816	0.936	0.850	0.874	0.881	0.873
54	France	0.892	0.814	0.953	0.760	0.881	0.885	0.852
55	Gabon	0.776	0.588	0.668	0.361	0.627	0.673	0.576
56	Gambia, The	0.415	0.346	0.597	0.309	0.455	0.441	0.403
57	Georgia	0.639	0.770	0.832	0.507	0.800	0.743	0.675
58	Germany	0.916	0.883	0.939	0.802	0.911	0.912	0.883
59	Ghana	0.538	0.553	0.632	0.551	0.591	0.573	0.567
60	Greece	0.832	0.798	0.933	0.609	0.863	0.853	0.784
61	Guatemala	0.639	0.484	0.800	0.341	0.622	0.628	0.539
62	Guinea	0.368	0.295	0.555	0.249	0.405	0.392	0.350
63	Guinea-Bissau	0.361	0.327	0.527	0.195	0.415	0.396	0.332
64	Guyana	0.627	0.581	0.711	0.444	0.642	0.637	0.582
65	Haiti	0.422	0.374	0.662	0.287	0.498	0.471	0.416
66	Honduras	0.562	0.506	0.828	0.318	0.647	0.617	0.523
67	Hong Kong SAR, China	0.946	0.767	0.982	0.720	0.868	0.893	0.846
68	Hungary	0.809	0.804	0.850	0.629	0.827	0.821	0.768
69	Iceland	0.885	0.847	0.971	0.810	0.907	0.900	0.876
70	India	0.595	0.472	0.715	0.529	0.581	0.585	0.571
71	Indonesia	0.679	0.603	0.782	0.441	0.686	0.684	0.613
72	Iran, Islamic Rep.	0.740	0.682	0.832	0.234	0.753	0.749	0.560
73	Iraq	0.747	0.467	0.761	0.240	0.596	0.643	0.503
74	Ireland	0.878	0.887	0.939	0.802	0.913	0.901	0.875
75	Israel	0.861	0.853	0.955	0.658	0.902	0.888	0.824
76	Italy	0.874	0.789	0.958	0.627	0.870	0.871	0.802
77	Jamaica	0.665	0.667	0.823	0.503	0.741	0.715	0.655
78	Japan	0.892	0.808	0.974	0.750	0.887	0.889	0.852
79	Jordan	0.715	0.699	0.829	0.441	0.762	0.746	0.654
80	Kazakhstan	0.796	0.763	0.776	0.306	0.770	0.778	0.616
81	Kenya	0.464	0.516	0.641	0.398	0.575	0.535	0.497
82	Korea, Rep.	0.863	0.866	0.946	0.662	0.905	0.891	0.827
83	Kuwait	1.000	0.646	0.838	0.462	0.735	0.815	0.707
84	Kyrgyz Republic	0.515	0.657	0.772	0.325	0.712	0.639	0.540
85	Lao PDR	0.570	0.437	0.742	0.251	0.569	0.570	0.464
86	Latvia	0.816	0.814	0.830	0.648	0.822	0.820	0.773
87	Lebanon	0.769	0.630	0.925	0.377	0.763	0.765	0.641
88	Lesotho	0.503	0.505	0.451	0.481	0.477	0.486	0.485
89	Liberia	0.305	0.366	0.624	0.361	0.478	0.411	0.398
90	Libya	0.812	0.697	0.852	0.262	0.771	0.784	0.596
91	Lithuania	0.826	0.877	0.833	0.671	0.855	0.845	0.798
92	Luxembourg	0.963	0.763	0.951	0.840	0.852	0.887	0.875
93	Macedonia, FYR	0.720	0.643	0.849	0.476	0.739	0.732	0.658
94	Madagascar	0.391	0.459	0.688	0.332	0.562	0.498	0.450
95	Malawi	0.297	0.440	0.542	0.462	0.488	0.414	0.425
96	Malaysia	0.814	0.669	0.846	0.509	0.753	0.772	0.696
97	Maldives	0.697	0.546	0.891	0.388	0.698	0.697	0.602
98	Mali	0.409	0.306	0.539	0.392	0.406	0.407	0.403
99	Malta	0.846	0.733	0.935	0.745	0.828	0.834	0.811
100	Mauritania	0.513	0.351	0.639	0.312	0.474	0.486	0.435
101	Mauritius	0.774	0.717	0.838	0.679	0.775	0.775	0.750
102	Mexico	0.765	0.639	0.882	0.445	0.751	0.756	0.662

Table A1. (continued)

	Country	GNI	EDUC	Health	GOV	NIHDI	HDI	GHDI
103	Moldova	0.592	0.654	0.751	0.447	0.701	0.663	0.601
104	Mongolia	0.670	0.693	0.732	0.468	0.712	0.698	0.632
105	Morocco	0.640	0.469	0.783	0.400	0.606	0.617	0.554
106	Mozambique	0.349	0.371	0.464	0.383	0.415	0.392	0.389
107	Myanmar	0.557	0.372	0.694	0.227	0.508	0.524	0.425
108	Namibia	0.683	0.521	0.682	0.563	0.596	0.624	0.608
109	Nepal	0.467	0.451	0.745	0.367	0.580	0.539	0.490
110	Netherlands	0.914	0.894	0.940	0.839	0.917	0.916	0.896
111	New Zealand	0.874	0.917	0.945	0.848	0.931	0.911	0.895
112	Nicaragua	0.567	0.485	0.843	0.390	0.639	0.614	0.548
113	Niger	0.327	0.197	0.591	0.388	0.341	0.336	0.349
114	Nigeria	0.601	0.423	0.500	0.307	0.460	0.503	0.445
115	Norway	0.976	0.909	0.945	0.872	0.927	0.943	0.925
116	Oman	0.913	0.604	0.875	0.428	0.727	0.784	0.674
117	Pakistan	0.580	0.371	0.717	0.329	0.515	0.536	0.474
118	Panama	0.770	0.658	0.886	0.513	0.763	0.766	0.693
119	Palestine (State of)	0.596	0.663	0.819	0.367	0.737	0.687	0.587
120	Papua New Guinea	0.483	0.377	0.653	0.392	0.496	0.492	0.465
121	Paraguay	0.654	0.587	0.804	0.398	0.687	0.676	0.592
122	Peru	0.714	0.664	0.843	0.438	0.748	0.737	0.647
123	Philippines	0.628	0.611	0.749	0.454	0.676	0.660	0.601
124	Poland	0.811	0.824	0.875	0.676	0.849	0.836	0.793
125	Portugal	0.829	0.726	0.929	0.707	0.821	0.824	0.793
126	Qatar	1.000	0.687	0.902	0.482	0.787	0.852	0.739
127	Romania	0.780	0.748	0.838	0.539	0.792	0.788	0.717
128	Russian Federation	0.819	0.779	0.786	0.320	0.782	0.794	0.633
129	Rwanda	0.399	0.477	0.677	0.353	0.568	0.505	0.462
130	Samoa	0.582	0.702	0.819	0.618	0.758	0.694	0.674
131	Sao Tome and Principe	0.519	0.471	0.712	0.418	0.579	0.558	0.519
132	Saudi Arabia	0.945	0.723	0.857	0.273	0.787	0.837	0.633
133	Senegal	0.465	0.369	0.667	0.475	0.496	0.486	0.483
134	Seychelles	0.832	0.636	0.834	0.505	0.728	0.761	0.687
135	Sierra Leone	0.438	0.305	0.393	0.370	0.346	0.374	0.373
136	Singapore	0.995	0.768	0.959	0.659	0.858	0.901	0.834
137	Slovak Republic	0.836	0.803	0.866	0.636	0.834	0.835	0.780
138	Slovenia	0.845	0.863	0.927	0.695	0.895	0.878	0.828
139	Solomon Islands	0.397	0.406	0.734	0.434	0.546	0.491	0.476
140	South Africa	0.720	0.694	0.565	0.569	0.626	0.656	0.633
141	Spain	0.864	0.795	0.960	0.696	0.874	0.871	0.823
142	Sri Lanka	0.684	0.738	0.834	0.409	0.785	0.749	0.644
143	Sudan	0.534	0.306	0.647	0.190	0.445	0.473	0.377
144	Suriname	0.758	0.590	0.785	0.520	0.681	0.705	0.654
145	Swaziland	0.606	0.551	0.445	0.334	0.495	0.530	0.472
146	Sweden	0.917	0.829	0.949	0.862	0.887	0.897	0.888
147	Switzerland	0.950	0.843	0.965	0.844	0.902	0.918	0.899
148	Syrian Arab Republic	0.613	0.553	0.842	0.173	0.682	0.658	0.471
149	Tajikistan	0.482	0.641	0.729	0.227	0.684	0.608	0.476
150	Tanzania	0.428	0.426	0.638	0.426	0.521	0.488	0.472
151	Thailand	0.739	0.607	0.836	0.442	0.713	0.721	0.638
152	Timor-Leste	0.691	0.472	0.731	0.354	0.587	0.620	0.539
153	Togo	0.366	0.516	0.561	0.301	0.538	0.473	0.423
154	Tonga	0.600	0.722	0.810	0.557	0.765	0.705	0.665
155	Trinidad and Tobago	0.836	0.702	0.768	0.518	0.734	0.767	0.695

Table A1. (continued)

	Country	GNI	EDUC	Health	GOV	NIHDI	HDI	GHDI
156	Tunisia	0.702	0.622	0.825	0.468	0.717	0.712	0.641
157	Turkey	0.788	0.653	0.849	0.480	0.745	0.759	0.677
158	Uganda	0.391	0.480	0.603	0.409	0.538	0.484	0.464
159	Ukraine	0.666	0.796	0.787	0.382	0.792	0.747	0.632
160	United Arab Emirates	1.000	0.673	0.879	0.430	0.769	0.839	0.710
161	United Kingdom	0.885	0.860	0.938	0.798	0.898	0.894	0.869
162	United States of America	0.946	0.888	0.905	0.760	0.897	0.913	0.872
163	Uruguay	0.785	0.714	0.878	0.655	0.792	0.789	0.753
164	Uzbekistan	0.598	0.653	0.742	0.170	0.696	0.661	0.471
165	Venezuela, RB	0.776	0.681	0.841	0.210	0.757	0.763	0.552
166	Vietnam	0.588	0.514	0.858	0.306	0.664	0.637	0.531
167	Yemen, Rep.	0.555	0.339	0.663	0.248	0.474	0.500	0.419
168	Zambia	0.509	0.592	0.586	0.458	0.589	0.561	0.533
169	Zimbabwe	0.388	0.498	0.612	0.204	0.552	0.491	0.394

Table 2. Governance-adjusted Human Development Index Rank, 2013

	Country	GNI	NIHDI	GOV	HDI	GHDI	GNI-HDI	HDI-GHDI
1	Afghanistan	144	148	162	153	160	-9	-7
2	Albania	93	82	83	83	75	10	8
3	Algeria	77	92	122	84	96	-7	-12
4	Angola	109	147	150	133	143	-24	-10
5	Argentina	59	39	87	47	53	12	-6
6	Armenia	99	61	98	78	83	21	-5
7	Australia	19	1	11	2	2	17	0
8	Austria	14	27	9	23	16	-9	7
9	Azerbaijan	67	78	142	70	99	-3	-29
10	Bahamas, The	50	55	38	51	41	-1	10
11	Bahrain	29	50	115	43	62	-14	-19
12	Bangladesh	137	120	110	126	120	11	6
13	Barbados	73	44	24	57	39	16	18
14	Belarus	63	42	153	48	94	15	-46
15	Belgium	20	23	16	22	17	-2	5
16	Belize	91	68	59	77	61	14	16
17	Benin	146	141	84	149	135	-3	14
18	Bolivia	111	95	113	100	104	11	-4
19	Bosnia and Herzegovina	90	71	72	79	69	11	10
20	Botswana	70	139	46	121	100	-51	21
21	Brazil	71	76	54	73	56	-2	17
22	Brunei Darussalam	5	49	64	30	43	-25	-13
23	Bulgaria	68	45	57	55	50	13	5
24	Burkina Faso	150	166	95	164	157	-14	7
25	Burundi	166	159	140	163	163	3	0
26	Cabo Verde	107	111	40	111	76	-4	35
27	Cambodia	135	112	137	120	123	15	-3
28	Cameroon	138	138	141	136	144	2	-8
29	Canada	18	13	10	9	9	9	0
30	Central African Republic	168	165	168	167	169	1	-2
31	Chad	149	167	159	166	167	-17	-1
32	Chile	52	34	21	40	31	12	9
33	China	81	86	146	82	108	-1	-26
34	Colombia	80	93	82	88	82	-8	6

Table 2. (continued)

	Country	GNI	NIHDI	GOV	HDI	GHDI	GNI-HDI	HDI-GHDI
35	Comoros	152	135	121	144	141	8	3
36	Congo, Dem. Rep.	169	162	163	168	168	1	0
37	Congo, Rep.	119	130	145	124	130	-5	-6
38	Costa Rica	76	56	37	64	46	12	18
35	Comoros	152	135	121	144	141	8	3
39	Croatia	55	38	47	46	44	9	2
40	Cuba	53	37	143	44	84	9	-40
41	Cyprus	35	32	26	33	29	2	4
42	Czech Republic	40	19	28	27	26	13	1
43	Denmark	15	11	3	8	6	7	2
44	Djibouti	131	158	148	154	151	-23	3
45	Dominican Republic	84	97	77	91	85	-7	6
46	Ecuador	88	87	112	87	89	1	-2
47	Egypt, Arab Rep.	86	105	126	97	106	-11	-9
48	El Salvador	101	106	93	103	98	-2	5
49	Equatorial Guinea	46	154	169	128	152	-82	-24
50	Estonia	43	25	22	31	27	12	4
51	Ethiopia	159	153	139	156	156	3	0
52	Fiji	102	62	124	80	93	22	-13
53	Finland	21	21	4	21	13	0	8
54	France	23	18	18	20	19	3	1
55	Gabon	61	113	117	99	103	-38	-4
56	Gambia, The	151	156	133	155	153	-4	2
57	Georgia	104	43	61	74	58	30	16
58	Germany	13	6	14	6	8	7	-2
59	Ghana	128	119	51	122	107	6	15
60	Greece	38	26	45	28	35	10	-7
61	Guatemala	105	115	123	112	115	-7	-3
62	Guinea	160	164	152	161	164	-1	-3
63	Guinea-Bissau	162	160	164	160	166	2	-6
64	Guyana	108	109	80	110	102	-2	8
65	Haiti	148	142	144	152	150	-4	2
66	Honduras	125	108	131	115	118	10	-3
67	Hong Kong SAR, China	9	24	23	15	20	-6	-5
68	Hungary	51	36	42	41	38	10	3
69	Iceland	24	7	12	12	10	12	2
70	India	117	123	53	119	105	-2	14
71	Indonesia	95	100	85	96	87	-1	9
72	Iran, Islamic Rep.	74	70	156	69	109	5	-40
73	Iraq	72	117	155	107	121	-35	-14
74	Ireland	26	5	13	11	11	15	0
75	Israel	32	9	35	18	24	14	-6
76	Italy	27	22	43	25	30	2	-5
77	Jamaica	98	77	63	85	66	13	19
78	Japan	22	16	19	17	18	5	-1
79	Jordan	82	66	86	72	67	10	5
80	Kazakhstan	54	59	136	56	86	-2	-30
81	Kenya	143	126	101	131	122	12	9
82	Korea, Rep.	31	8	33	16	23	15	-7
83	Kuwait	1	81	73	45	49	-44	-4
84	Kyrgyz Republic	132	90	129	108	113	24	-5
85	Lao PDR	123	127	151	123	137	0	-14

Table 2. (continued)

	Country	GNI	NIHDI	GOV	HDI	GHDI	GNI-HDI	HDI-GHDI
86	Latvia	45	40	39	42	37	3	5
87	Lebanon	65	64	109	62	72	3	-10
88	Lesotho	136	150	66	146	125	-10	21
89	Liberia	165	149	118	158	155	7	3
90	Libya	48	58	149	54	95	-6	-41
91	Lithuania	42	29	32	32	32	10	0
92	Luxembourg	7	30	7	19	12	-12	7
93	Macedonia, FYR	79	79	68	76	65	3	11
94	Madagascar	157	129	127	139	140	18	-1
95	Malawi	167	146	74	157	146	10	11
96	Malaysia	47	72	60	59	51	-12	8
97	Maldives	87	96	105	93	90	-6	3
98	Mali	153	163	102	159	154	-6	5
99	Malta	33	35	20	38	28	-5	10
100	Mauritania	133	152	132	145	145	-12	0
101	Mauritius	62	57	30	58	42	4	16
102	Mexico	66	73	79	67	64	-1	3
103	Moldova	118	94	78	101	92	17	9
104	Mongolia	96	91	71	92	81	4	11
105	Morocco	103	116	99	116	110	-13	6
106	Mozambique	163	161	107	162	159	1	3
107	Myanmar	126	140	158	134	147	-8	-13
108	Namibia	94	118	49	113	88	-19	25
109	Nepal	141	124	114	129	124	12	5
110	Netherlands	16	4	8	4	4	12	0
111	New Zealand	28	2	5	7	5	21	2
112	Nicaragua	124	110	104	117	112	7	5
113	Niger	164	169	106	169	165	-5	4
114	Nigeria	113	155	134	137	142	-24	-5
115	Norway	6	3	1	1	1	5	0
116	Oman	17	85	91	53	60	-36	-7
117	Pakistan	122	137	128	130	129	-8	1
118	Palestine (State of)	116	80	116	95	101	21	-6
119	Panama	64	65	58	61	54	3	7
120	Papua New Guinea	139	144	103	140	136	-1	4
121	Paraguay	100	99	100	98	97	2	1
122	Peru	83	74	88	75	70	8	5
123	Philippines	106	104	76	104	91	2	13
124	Poland	49	31	31	36	34	13	2
125	Portugal	41	41	25	39	33	2	6
126	Qatar	1	52	65	29	45	-28	-16
127	Romania	58	46	52	52	47	6	5
128	Russian Federation	44	54	130	49	79	-5	-30
129	Rwanda	154	128	120	135	139	19	-4
130	Samoa	121	67	44	94	59	27	35
131	Sao Tome and Principe	130	125	94	127	119	3	8
132	Saudi Arabia	11	51	147	35	78	-24	-43
133	Senegal	142	143	69	147	126	-5	21
134	Seychelles	39	84	62	65	55	-26	10
135	Sierra Leone	145	168	111	165	162	-20	3
136	Singapore	4	28	34	10	21	-6	-11
137	Slovak Republic	36	33	41	37	36	-1	1

Table 2. (continued)

	Country	GNI	NIHDI	GOV	HDI	GHDI	GNI-HDI	HDI-GHDI
138	Slovenia	34	15	29	24	22	10	2
139	Solomon Islands	155	132	89	142	127	13	15
140	South Africa	78	114	48	106	77	-28	29
141	Spain	30	20	27	26	25	4	1
142	Sri Lanka	92	53	96	68	71	24	-3
143	Sudan	129	157	165	151	161	-22	-10
144	Suriname	69	103	55	89	68	-20	21
145	Swaziland	112	145	125	132	131	-20	1
146	Sweden	12	17	2	13	7	-1	6
147	Switzerland	8	10	6	3	3	5	0
148	Syrian Arab Republic	110	102	166	105	133	5	-28
149	Tajikistan	140	101	157	118	128	22	-10
150	Tanzania	147	136	92	143	132	4	11
151	Thailand	75	89	81	81	74	-6	7
152	Timor-Leste	89	122	119	114	114	-25	0
153	Togo	161	133	138	150	148	11	2
154	Tonga	114	63	50	90	63	24	27
155	Trinidad and Tobago	37	83	56	60	52	-23	8
156	Tunisia	85	88	70	86	73	-1	13
157	Turkey	56	75	67	66	57	-10	9
158	Uganda	156	134	97	148	138	8	10
159	Ukraine	97	47	108	71	80	26	-9
160	United Arab Emirates	1	60	90	34	48	-33	-14
161	United Kingdom	25	12	15	14	15	11	-1
162	United States of America	10	14	17	5	14	5	-9
163	Uruguay	57	48	36	50	40	7	10
164	Uzbekistan	115	98	167	102	134	13	-32
165	Venezuela, RB	60	69	160	63	111	-3	-48
166	Vietnam	120	107	135	109	117	11	-8
167	Yemen, Rep.	127	151	154	138	149	-11	-11
168	Zambia	134	121	75	125	116	9	9
169	Zimbabwe	158	131	161	141	158	17	-17

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