2019 Berggruen Governance Index

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EXECUTIVE SUMMARY

The Berggruen Governance Index seeks to catalyze a shift in perspective when it comes to how we think about and how we measure "good" governance. We consider good governance to be a process that requires effort and capacities throughout—not only at the beginning and at the end. By moving beyond the traditional input–output dichotomy, we attempt to shed light on what happens inside the "black box" of governance.

As the index reveals, countries with strong democratic institutions and efficient government provide a high level of public goods to their citizens. This is no surprise. But countries with weak democratic institutions sometimes also manage to deliver a surprising level of public goods. Others yet are solid democracies but have weak government and a lower quality of life.

The index evaluates the quality of democracy, or inputs, based on the ability of citizens to monitor government and engage in political life, as well as the quality of government, or throughputs, defined by levels of corruption and judicial impartiality and the capacity to collect taxes, recruit civil servants, coordinate across government, and regulate businesses. It then shows whether governments are good or bad at turning these capacities into public goods, or outputs, such as education, health, environment, crime control, civil justice, and economic factors like inflation or the shadow economy, dubbed quality of life. Improving these capacities is the most reliable and effective way to achieve and maintain a high quality of life.

The index shows quantitatively how two dimensions of governance, the Quality of Democracy and the Quality of Government, can be translated into a better or worse Quality of Life – the provision of public goods – based on data gathered on 38 countries. Not surprisingly, while economically advanced, democratic countries top the list, and less developed or more authoritarian regimes generally score poorly, surprising patterns emerge. They demonstrate that countries can only to some extent compensate for poor governance through such factors as economic growth or abundant natural resources, and perhaps only for some time. They also reveal that bad government can exhaust any advantages a high quality of democracy offers.

The quality of life in the 38-country study turns out to be the highest among the world's most economically advanced countries, all of which score high on quality of democracy and quality of government. Several of these countries, such as Germany, the Netherlands, Norway, Sweden, and Switzerland, perform equally well across all three levels, translating their high quality of democracy and government into an equally high quality of life. At first glance, these results seem to confirm economists who have, since Adam Smith's *Wealth of Nations*, equated economic prosperity with the advance of civilization. However, there is another side to this story. While some of the economically most developed countries manage to exceed their potential, others achieve basically what their level of economic development, measured by GDP per capita, would entail (**Figure 14**).

At the lower half of the overall index, some authoritarian countries like China, Russia and Vietnam actually provide a quality of life beyond what their quality of democracy and quality of government scores would predict (**Figure 10**). These countries have likely benefitted from factors such as strong economic growth in past years, or they rely on the economic benefits of abundant natural resources to improve the quality of public goods for their citizens. But resource dependence is a risky way to compensate for governance weaknesses to obtain public goods, as is relying on economic cycles, even long-term growth.

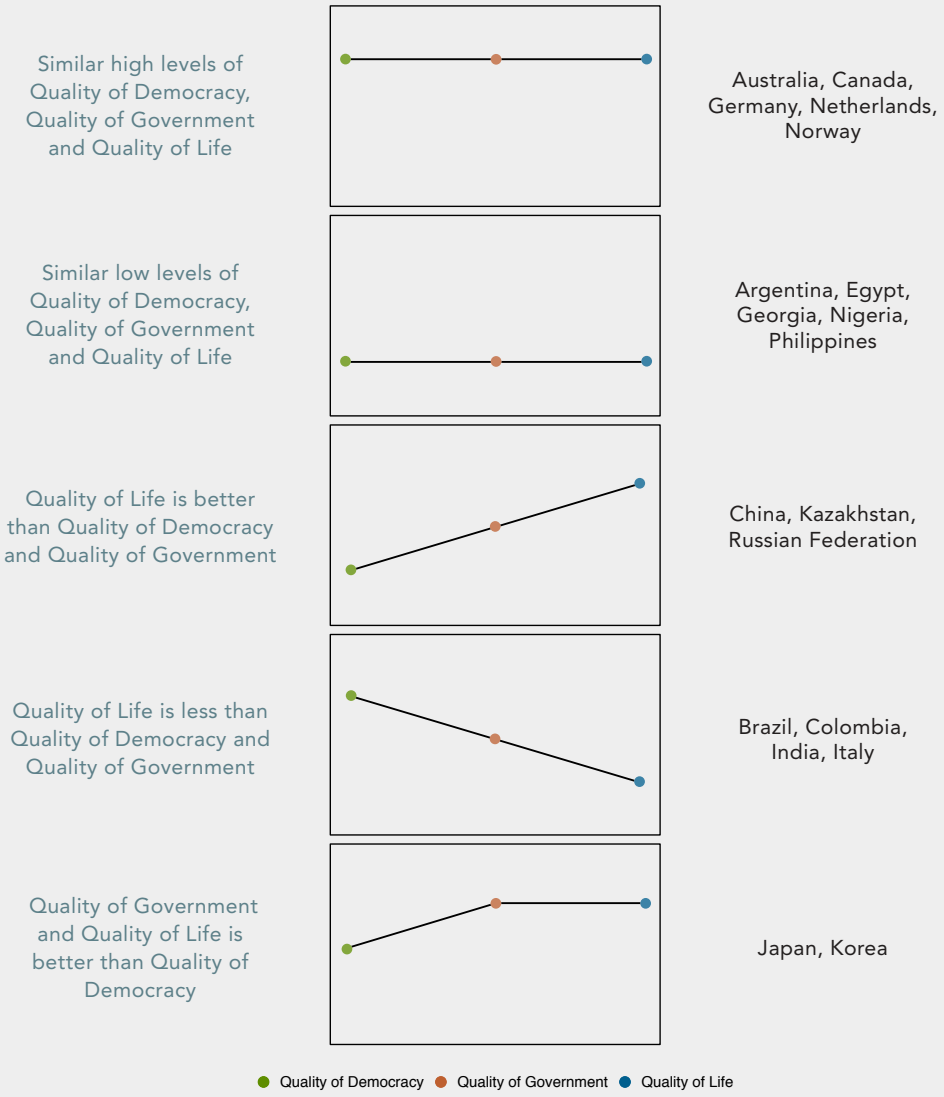
That governance matters becomes clear when we look at Brazil, India and South Africa. The countries' average performance in the Quality of Democracy dimension is dragged down by poor government, to result in a relatively poor provision of public goods. These countries would likely be much better at providing public goods if they were to improve the quality of their government.

The path for the provision of public goods is clearly through efficiency and effectiveness at the government level. This is evident in countries like South Korea and Japan, in which the efficient functioning of government, relative to a somewhat lower quality of democracy, improves their ability to provide public goods.

Some other countries are seen to be doing much better in providing quality of life given their level of economic development (**Figure 14**). Ghana is one such country. The country's performance across the different dimensions of governance is below average. Yet once its level of economic development is taken into account, Ghana is doing much better than one would expect. Despite lacking in economic resources, the relative strength of Ghana's governance structure allows the country to provide public goods on par with nations such as Argentina whose GDP per capita is more than eight times as large (**Figure 13**).

The Berggruen Governance Index is the first to open up the "black box" of governance. By visualizing relationships between the three main dimensions, the indicator system behind the Index enables many fruitful ways of identifying governance paths, patterns and processes. The combination of three main indices, 25 sub-indices, data covering 38 countries over a 14-year time span, and a methodology that identifies key factors points out where countries are doing better or worse than expected.

For countries, the index offers a flexible tool to identify real or potential strengths and weaknesses, and serves as a point of departure for either building on what works or diagnosing and adjusting what does not.



Part One: Findings

1 INTRODUCTION

Governance is about how public tasks are executed and how public problems are addressed. Good governance involves designing, running, and monitoring effective, efficient, and reliable institutions that are capable of dealing with public challenges and opportunities. The main premise—and promise—is that over time, good governance will result in countries with better economic, social, and political performances, compared to countries that manage public tasks and public problems less well.

The goal of the Berggruen Governance Index is to catalyze a shift in perspective when it comes to how we think about and how we measure "good" governance. We consider good governance to be a process that requires effort and capacities throughout—not only at the beginning and at the end. By moving beyond the traditional input-output dichotomy, we attempt to shed light on what happens inside the "black box" of governance.

We measure good governance, therefore, according to three major dimensions of an entire performance system: The quality of government index evaluates a country´s capacities to find solutions to public problems and to implement them efficiently so that they yield effective results. The quality of democracy index is determined largely by citizens' abilities to monitor government activities as well as engage politically in expressions of interest and opinion. The quality of life index is driven by how governments actually contribute to and support the wellbeing of citizens.

The Berggruen Governance Index covers three aggregate indices and 25 sub-indices[1] of governance, all of which cover a wide range of issue areas and concerns for 38 countries (see **Figure 1**) from 2004 to 2018. For simplicity of presentation, we have also developed a summary index, which averages the scores for the three component indices.

[1] For the sake of simplicity, also referred to as "categories" in this report.

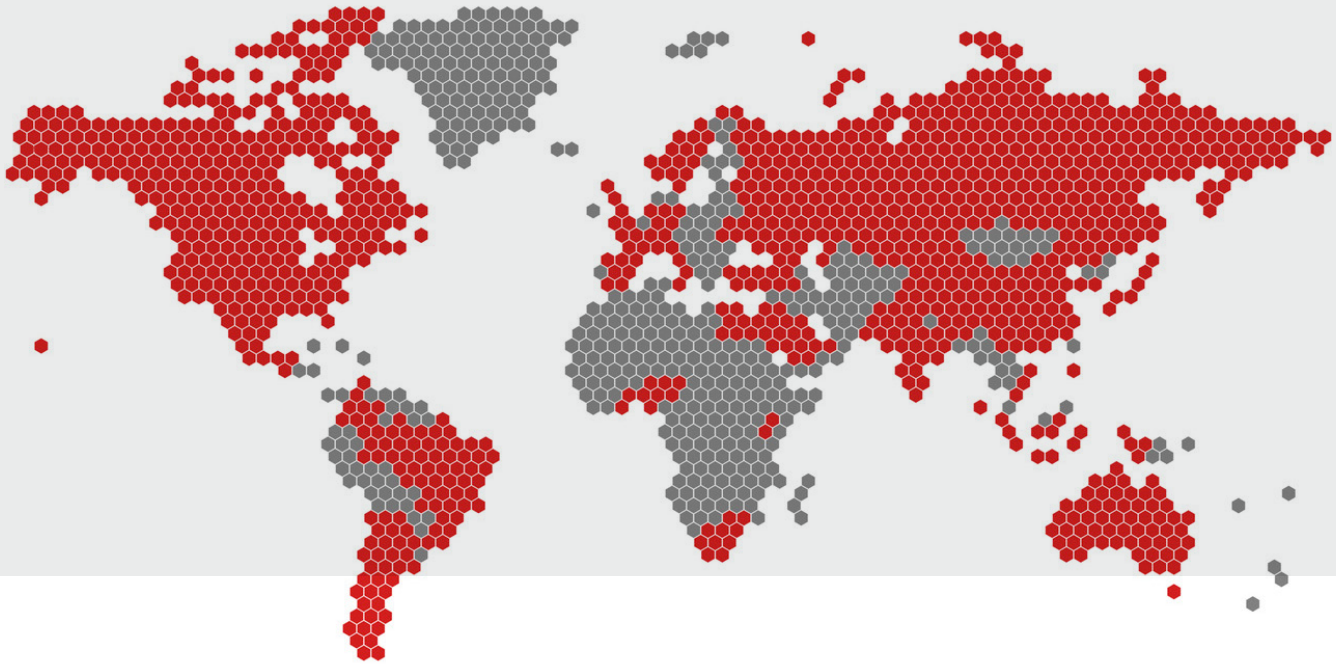


FIGURE 1
Map of countries included in the Berggruen Governance Index.

The selection of countries followed a two-step procedure. First, we selected the world's 19 major economies (The Group of Twenty minus the European Union) for which we believe changes in governance performance would have the biggest impact. These include Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom and the United States. Since the G19 leave out some important countries that may be of interest from a governance perspective, we supplement this selection with 19 additional countries from various geographical regions:

- **Europe:** Sweden, Netherlands, Spain, Switzerland, Norway
- **Latin America:** Chile, Colombia
- **Africa:** Kenya, Nigeria, Ghana
- **Middle East:** Jordan, Israel, Egypt
- **Central Asia:** Kazakhstan, Ukraine, Georgia
- **Asia:** Pakistan, Philippines, Vietnam

Together, these countries do not, of course, constitute a representative sample of the world´s countries. Nonetheless they cover about three-quarters of the world population and approximately 95% of global GDP.

In this first part of the report, we present the main findings relating to the 2019 Berggruen Governance Index, exploring patterns at the level of both the main indices and the sub-indices. Part Two of the report then explains in greater detail the index's theoretical framework, the content of the dimensions, and the methodology and provides country profiles as well as information on literature and data sources.

BERGGRUEN GOVERNANCE INDEX

38 Countries

95% of Global GDP

75% of Global Population

14 Years of Data

2 THE 2019 BERGGRUEN GOVERNANCE INDEX

In presenting the 2019 Berggruen Index, we proceed in a number of steps. First, we display the three high level indices of governance, reporting how the 38 countries are ranked on these scores. We then show the relationships between these three indicators, as well as highlight cases which are "overachievers" and "underachievers" according to the relationships between these scores. Second, we present how these indicators correlate with countries' levels of economic development as represented by GDP per capita, as well as indicators adjusted by this factor, which allows us to identify "overachievers" and "underachievers" whose performance on a governance dimension is greater or worse than expected given the level of development. Finally, we discuss the more disaggregated mid-level indicators of governance, illustrated by a selection of those available.

In all cases, higher scores indicate that the country is doing well in a particular domain. For example, a high score on corruption means that the country does not experience significant corruption, whereas a low score signals pervasive corruption.

2.1 THE AGGREGATE INDICES

Figures 2 and 3 present the most recent results of our estimation of the levels of quality of democracy, quality of government, and quality of life and an overall score, which is a simple average of the three index scores. Countries are ranked according to their scores. In many ways, the countries at the top of these four rankings are not surprising. However, if this were not the case, it would likely suggest there is something "wrong" in the way the Berggruen Governance Index was generated.[2]

FIGURE 2
Ranking of countries according to the three main governance indices: quality of democracy, quality of government, and quality of life.

Note: Circles indicate a country's score for this index. Lines indicate 95% credible intervals, a measure of uncertainty for a given country's score.

*2018 is the most recent year for which data was collected.

[2] Comparisons of the Berggruen Governance Index to other existing indices can be found in Part Two, Chapter 4.2.

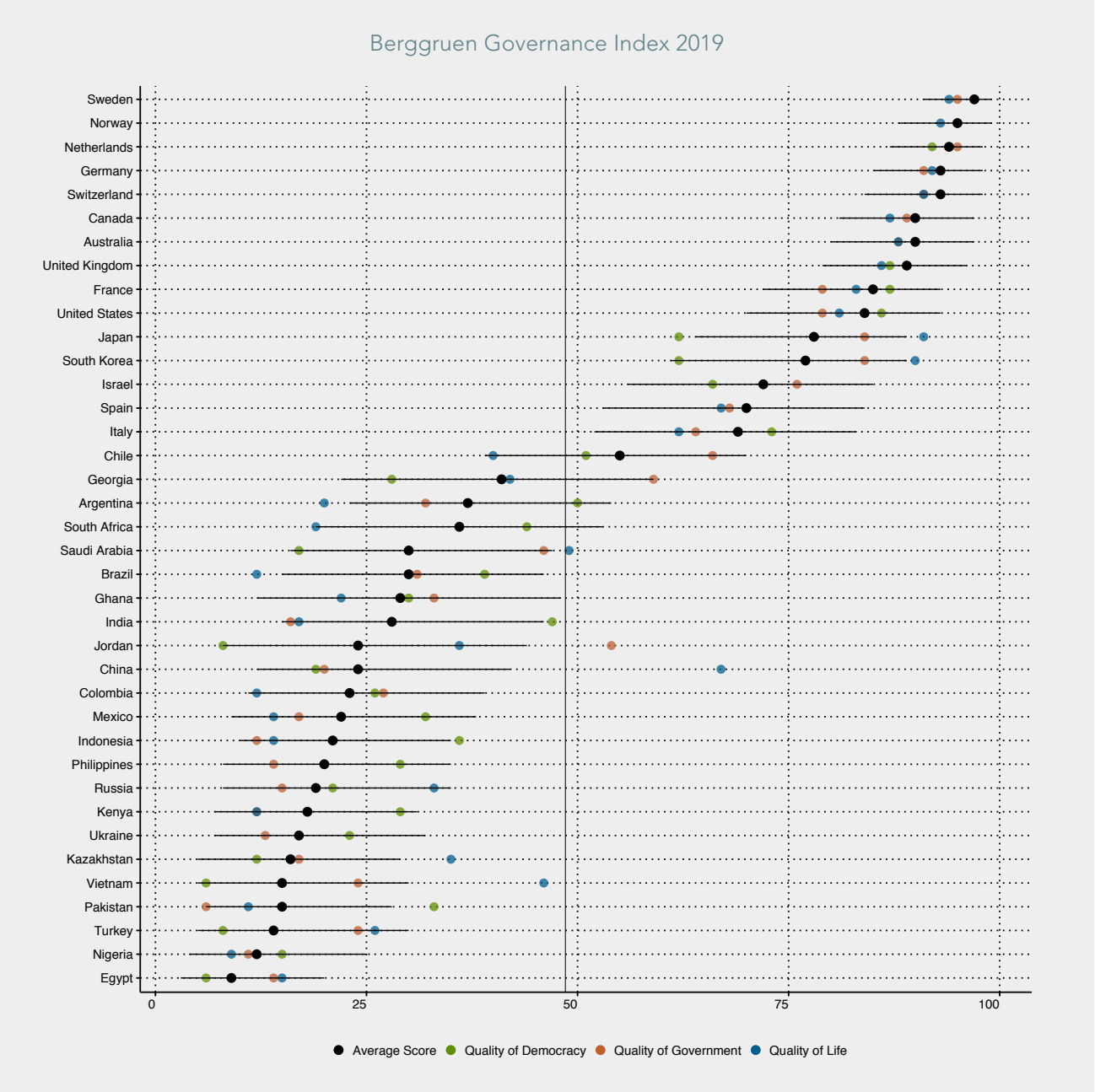


FIGURE 3

Average ranking of countries across the three main governance indices.

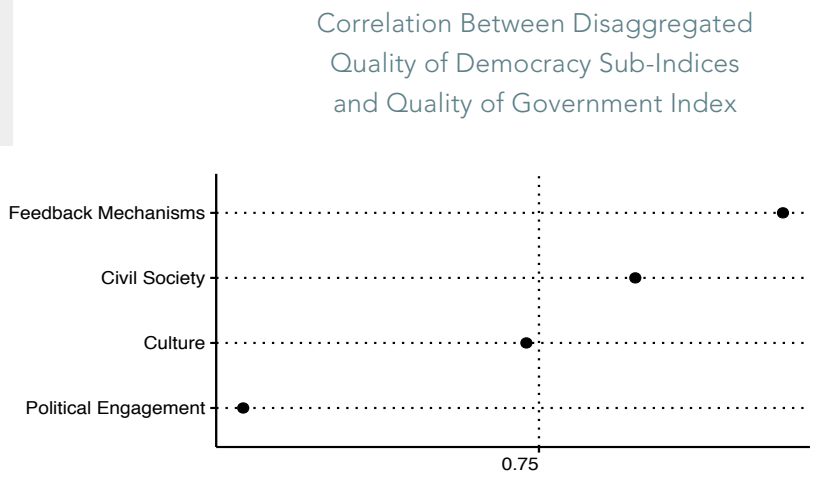
Note: The circles indicate a country's score on the aggregate index (black) and on the quality of democracy (green), quality of government (orange), and quality of life (blue) indices. Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

Moving down the rankings, we begin to see some more interesting cases. Unsurprisingly, those countries that are authoritarian tend to perform poorly in the QoD index. However, as we move to considering QoG and QoL, some of these countries tend to increase considerably in performance. In particular, China, Jordan and Saudi Arabia move to being close to or even slightly above the average value in the QoL index, despite their low QoD scores. In contrast, some other countries exhibit the opposite trend. India, Brazil and South Africa, for example, end up with below average scores with regards to QoL, in spite of roughly average scores on the QoD index. Examination of the mid-level indicators reveals that part of this decline is due in the cases of Brazil and South Africa to problems relating to crime control and weak education and in India to poor environment, public health and civil justice scores (see Part Two, Chapter 3 for Country Profiles).

There are also some interesting cases that emerge, where countries exhibit a u-shaped trajectory when moving from QoD to QoL. For example, the Philippines has relatively limited quality of government performance compared to its performance with regards to quality of democracy and quality of life, all three measures, however, falling in the bottom half of the sample. Such a case can be better understood using the disaggregated measures discussed in subsequent sections. One reason for its relatively poor performance on QoG is related to analytical capacity, a measure on which the country scores significantly below average.

To better understand associations between the indices, we show the correlation between disaggregated and aggregated indices in **Figures 4 to 6**. **Figure 4** shows the correlation between the indicator categories on the quality of democracy index and the aggregated quality of government index. Overall, there is a close association between most of them. All QoD indicators show a positive association to the QoG index. Feedback mechanisms, civil society, culture and political engagement are all moderately or strongly correlated with the QoG index[3]. **Figure 5** shows a similar strength of association between the disaggregated quality of democracy sub-indices and the aggregated quality of life index. The results in **Figure 6**, which shows the correlation between indicators on the quality of government dimension and the quality of life index, suggest a strong association (above 0.70) between all of the indicators and the QoL index.

FIGURE 4
Association (in terms of correlation coefficient) between the disaggregated quality of democracy sub-indices and the quality of government index.



[3] We could not include correlation coefficients for government transparency since key data sources have not been updated for several years. We plan to include government transparency measures in future versions of the report.

FIGURE 5
Association (in terms of correlation coefficient) between the disaggregated quality of democracy sub-indices and the quality of life index.

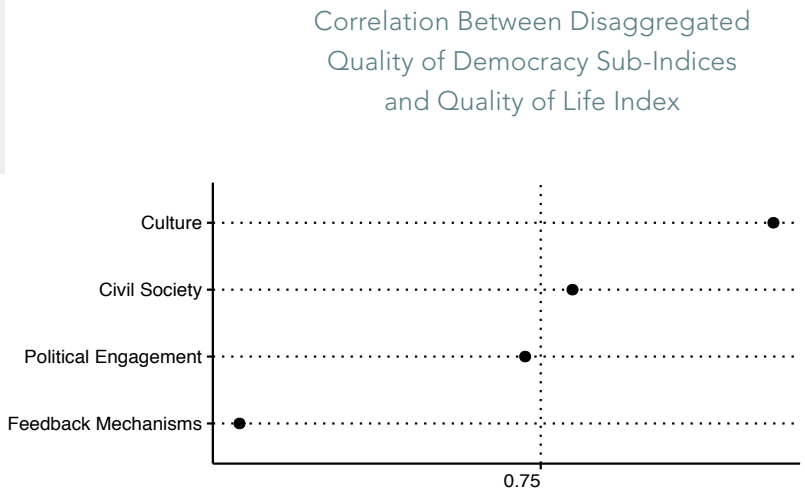
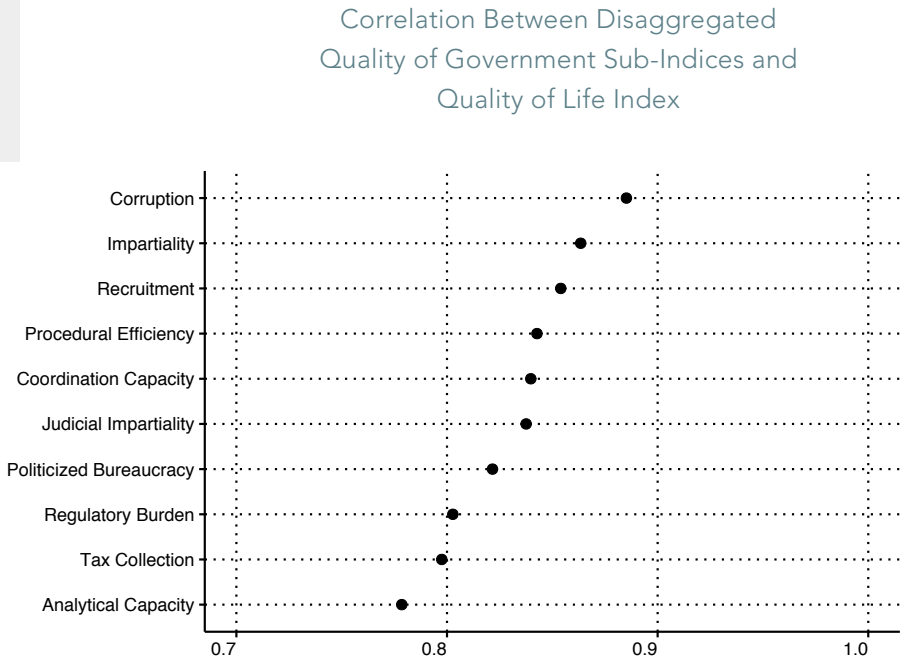


FIGURE 6
Association (in terms of correlation coefficient) between the disaggregated quality of government sub-indices and the quality of life index.



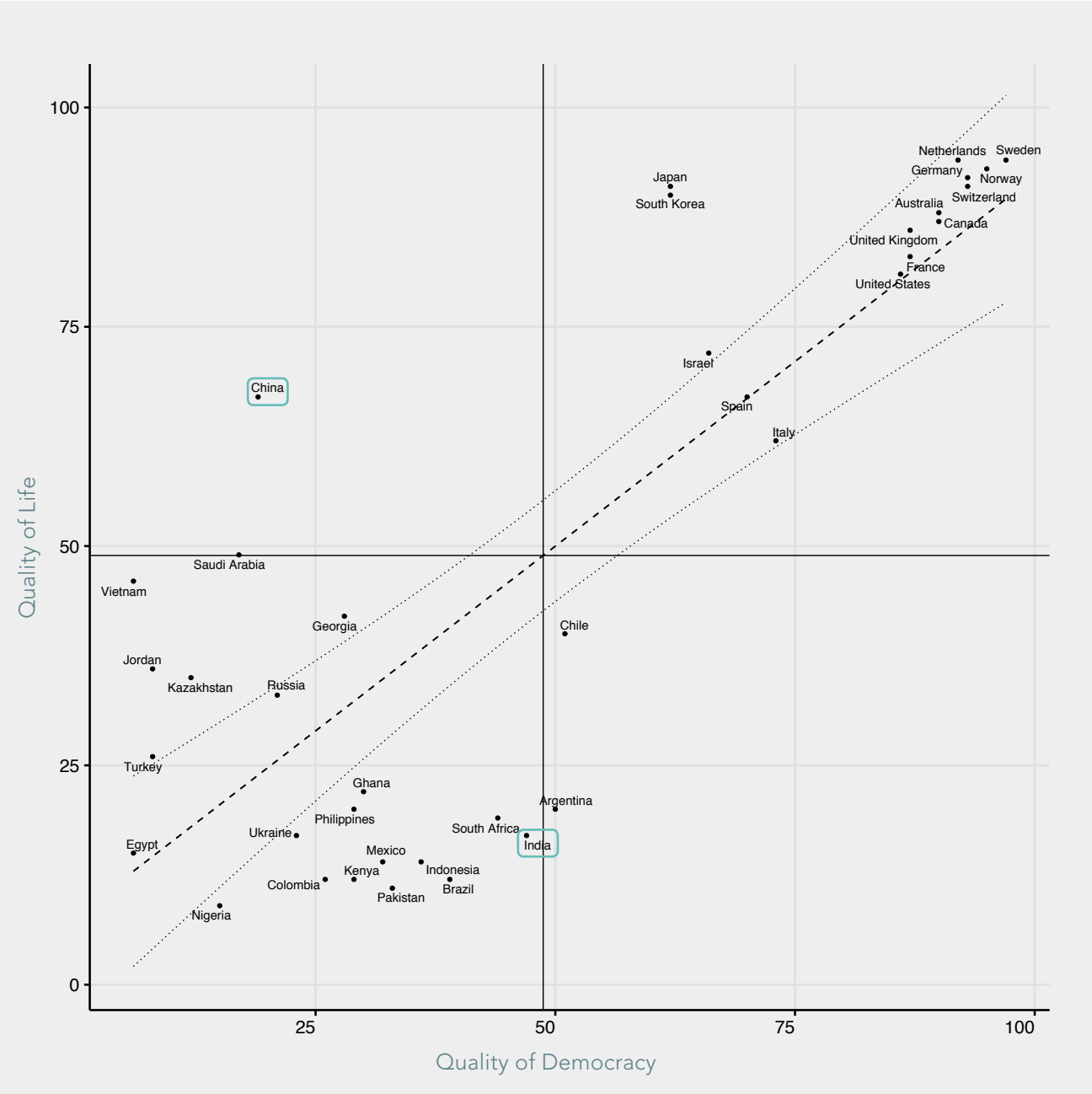


FIGURE 7

Relationship between quality of life and quality of democracy.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

To find out whether cases such as those with a non-linear trajectory outlined in the beginning of this section are rare or common, we examine scatterplots of the three main indices including a least squares linear fit as a measure of association. **Figures 7 to 9** show the relationship between the three indices. In these three figures, countries in the top right quadrant are those that perform well on the two indices being compared, while countries in the lower left quadrant perform poorly on the two indices. In examining these relationships across the three figures, we can see there is generally a positive association between the indices. Countries that perform well on one dimension also tend to perform well on the other dimensions. Nevertheless, there is still variation.

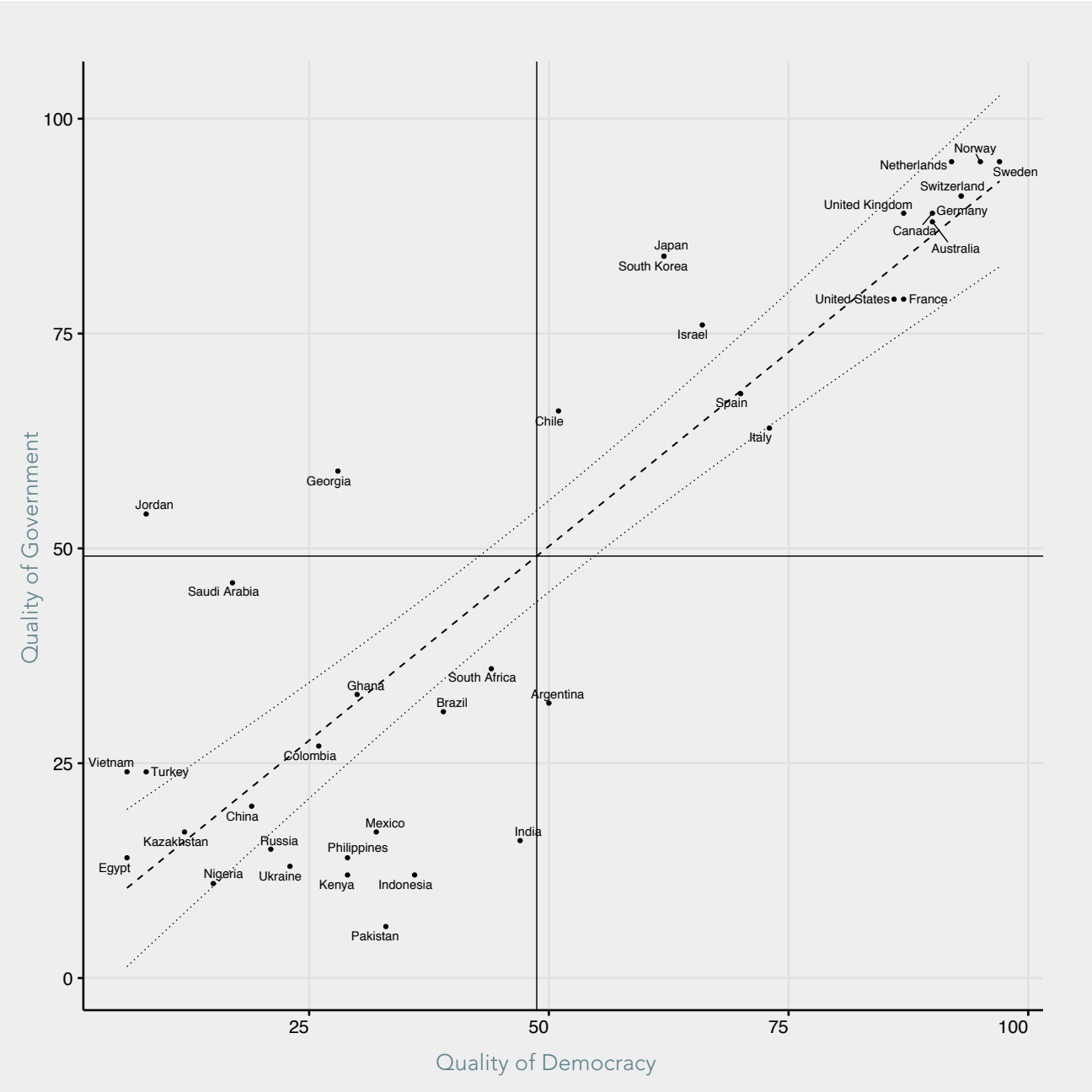


FIGURE 8

Relationship between quality of government and quality of democracy.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Indeed, as shown in **Figure 7**, in the case of the relationship between quality of democracy and quality of life there are some cases of countries that are not performing badly according to their QoD, yet this fails to translate into good performance in QoL. In addition, there are some countries whose QoL performance is greater than their performance in QoD. Take the cases of India and China. India is relatively successful in terms of quality of democracy performance, falling near the average. In contrast, China is ranked near the bottom in terms of its QoD, yet China is able to achieve considerably better performance in QoL overall and in all QoL sub-indices than India.

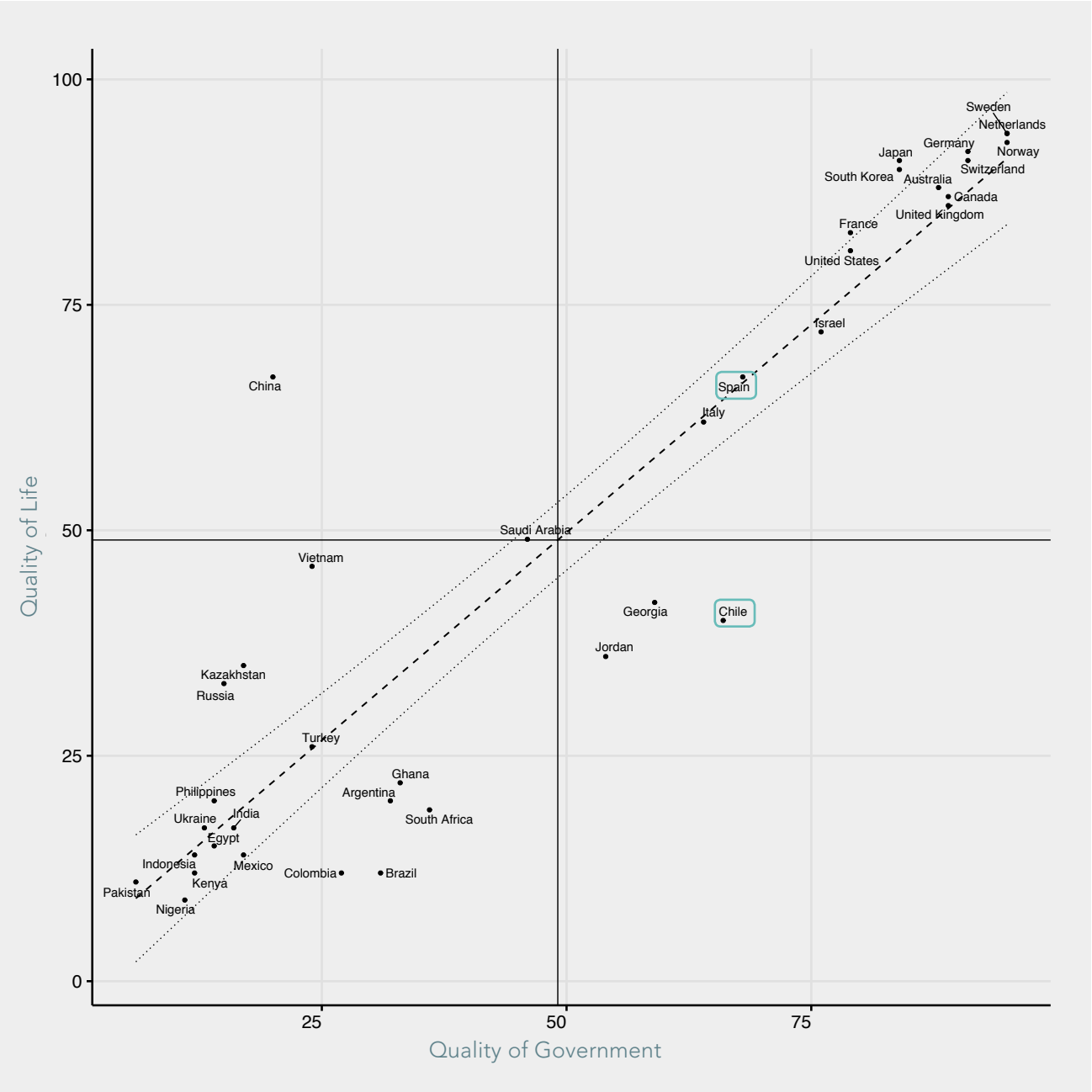


FIGURE 9

Relationship between quality of life and quality of government.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

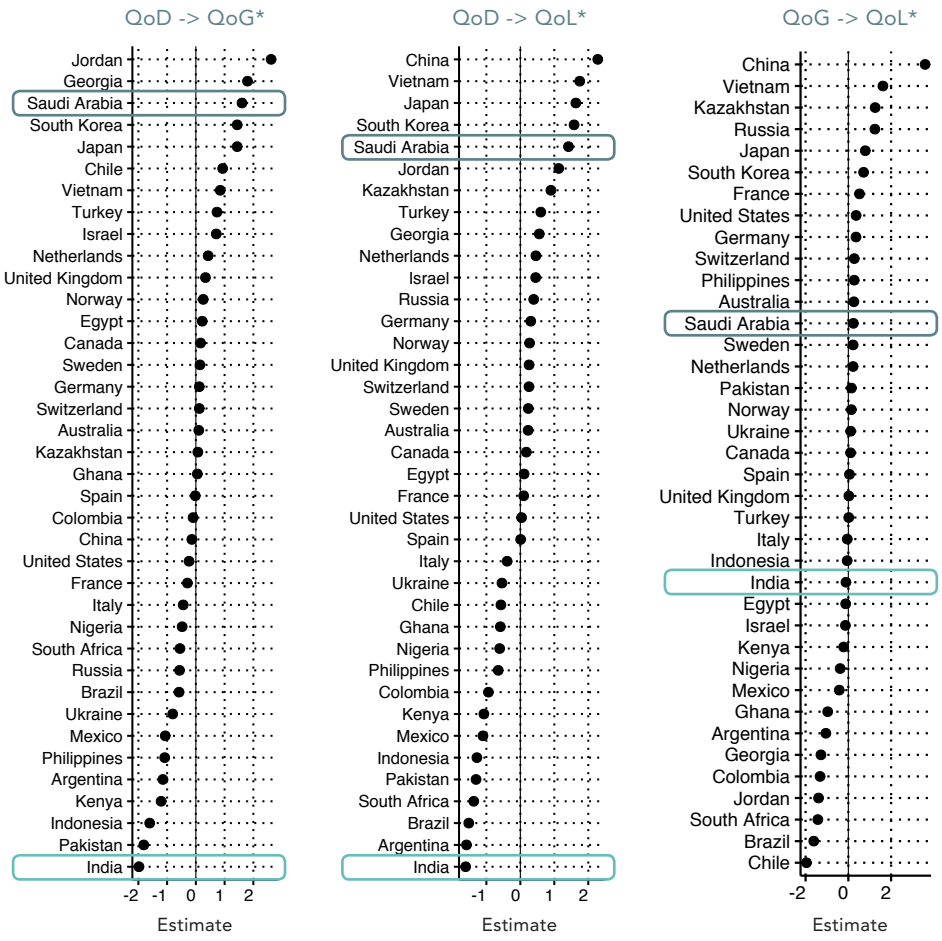
The pairwise associations between all three indices are strong: quality of democracy and quality of life (**Figure 7**, correlation = 0.81), QoD and quality of government (**Figure 8**, correlation = 0.87), and QoG and QoL (**Figure 9**, correlation = 0.92). Again there are many cases of interest. Chile and Spain are both above average achievers with regards to QoG. Yet, as shown in **Figure 9**, while Chile has a performance in terms of QoL somewhat below the average, Spain performs well above average.

To further understand these types of cases, we construct measures for whether countries are "overachievers" or "underachievers" by looking at whether countries are performing better or worse than expected in the quality of government and quality of life indices given their score on the quality of democracy index, as well as their QoL score given their QoG score.[4] **Figure 10** displays these measures of "overachievers" and "underachievers". Interestingly, India is a chronic underachiever given its QoD: It is among the

FIGURE 10

Ranking of countries according to whether they are over- or underachievers given values of the index.

Note: Positive values indicate a country has a higher than expected value, given their score on another index (i.e. an "overachiever").



*2018 is the most recent year for which data was collected.

lowest ranked countries in the index when examining the divergence between its actual and expected levels of QoG and QoL, given its score on the QoD index. In comparison, some authoritarian countries perform very well in terms of quality of government and quality of life, in spite of their poor quality of democracy performance. Saudi Arabia, for example, is ranked much higher in terms of QoG and QoL than would be expected given its score on the QoD index. However, this is not to say that Saudi Arabia is performing well in general on QoG and QoL, as inspection of **Figure 2** shows that it is at the average on both QoG and QoL.

[4] This is calculated using regression residuals. For example, suppose we are interested in calculating which countries are over- and underachieving in QoG given their level of QoD. To do so we estimate an ordinary least squares regression, with QoG scores as the dependent variable and QoD scores as the independent variables. The residuals from this regression then tell us whether a given country's QoG score is different than expected given their QoD score. Positive residuals indicate overachieving, and negative residuals indicate underachieving.

2.2 THE DETERMINANTS OF THE MAIN AGGREGATE INDICES

To better understand what the three main indices are capturing with regard to governance, we examine the individual variables underlying the various sub-indices that are most strongly linked to the index scores, not yet adjusted for GDP per capita. We chose the individual variables based on reasoned assumptions (based on practice and well-established theory) that they are related in some way to governance and, in particular, to the quality of democracy, quality of government, and quality of life dimensions. Instead of assigning weights to these variables beforehand, we let the methodology determine which variables are most informative; in other words, which variables are most closely related to strong or weak performance on a given dimension. As explained in the methodology section (Part Two, Chapter 4), this is captured by the "discrimination parameter". The discrimination parameter for a given variable tells us the strength of the association between that same variable and the index we have estimated. A variable characterized by a discrimination parameter close to zero will be largely "uninformative" with respect to the true indicator values, while a variable with a discrimination parameter far from zero will be very "informative." When we know how strongly each variable is associated with the index it is part of, we can then better understand how each one is related to governance and thus highlight the key features of governance that drive the three main indices and could be the focus of policy intervention or further analysis.[5]

To understand the key determinants of the quality of democracy index, **Table 1** shows 10 individual variables from among the variables that make up this index that the estimation process determined to have the highest weights, i.e., are most strongly associated with strong or weak performance on the index. Examining the content of the variables, we see that the QoD index is largely related to the prevalence of civil society organizations and political engagement, reflecting both the ability and willingness of citizens to mobilize as a means of articulating their interests. Most variables are related to these and other feedback channels, especially with regard to the freedom of expression and the media, as well as the discussion of politics with friends. In addition, other variables capture how transparent the government is, and how tolerant and trusting a society is.

Table 2 displays the top 10 variables out of all variables that are included in the quality of government index that the estimation process determined to be most associated with this index. Examination of the concepts they represent show that the measure of QoG is strongly influenced by measures of judicial impartiality, as well as issues of procedural efficiency, corruption control and business regulation. The general pattern this suggests is one of the quality of government being linked with the freedom and fairness of the justice and bureaucratic systems, as well as their efficiency.

Finally, we show the top 10 determinants out of all variables of the QoL index in **Table 3**. We see that variables related to crime and education were determined to be most associated with the overall quality of life scores, as were issues relating to civil justice, public health, environment and other public services. There are two patterns to be seen in terms of the QoL index. First, there are those variables that are mostly related to issues of coverage and quality of public services, with particular focus on education, drinking water and sanitation, and basic healthcare services. These are goods that require substantial investments in both their development and maintenance by the government. Second, there are those variables that are related to the judicial system, providing beneficial outputs by being effectively enforced.

This is informative of the strong association between the quality of government and quality of life indices, as we would expect that a state apparatus that is corrupt and lacks impartiality will be prone to fail at these tasks. That is, corruption and unequal treatment are often associated with poor quality of life due to incentives focused on agents' own benefits rather than on citizens.

Understanding the drivers of the three main indices sheds some light on the chain of associations found in this report. The QoD measure is highly influenced by the ability of citizens to organize to promote and voice their interests.

Understanding the drivers of the three main indices sheds some light on the chain of associations found in this report. The QoD measure is highly influenced by the ability of citizens to organize to promote and voice their interests. The QoG measure captures issues of judicial impartiality and procedural efficiency. The positive association between the QoD and QoG indices indicates that cases of partiality within the justice system are often accompanied by low citizen oversight and an inability to mobilize. Finally, the positive association between QoG and QoL indicates that when these practices occur, citizens suffer from poor access to and quality of healthcare and basic public services. Yet ultimately, these cases where citizens would benefit from a greater ability to oversee governments' decisions and mobilize to articulate their preferences are also associated with a lack of these conditions.

[5] For reasons of space we simply present the top 10 variables, sorted by their absolute values for the discrimination parameters. Full plots of all discrimination parameters and more detailed information on the methodology can be found in Part II, Chapter 4.1 Methodology Details.

	SUB-INDICES	VARIABLE DESCRIPTION (DATA SOURCE)
DEMOCRACY	Civil Society	Number of active NGOs, as proportion of log population (Yearbook of International Organizations)
	Political Engagement	Freedom of opinion and expression is effectively guaranteed (Rule of Law Index)
	Culture	Diversity/Tolerance dimension (WVS and own calculations)
	Political Engagement	Signing petition (WVS)
	Feedback Mechanisms	Freedom of the press (IPD)
	Feedback Mechanisms	Freedom of media (Gallup)
	Political Engagement	Donated money for political campaign (ISSP)
	Political Engagement	Political discussion with friends (EVS, ISSP)
	Government Transparency	Whistleblowing protection (Anticorruption Authorities Initiative)
	Culture	Trust in society (WVS)

TABLE 1 Key Determinants of the Quality of Democracy Index.

	SUB-INDICES	VARIABLE DESCRIPTION (DATA SOURCE)
GOVERNMENT	Judicial Impartiality	Criminal system is free of corruption (Rule of Law Index)
	Judicial Impartiality	Due process of law and rights of the accused (Rule of Law Index)
	Judicial Impartiality	Civil justice is free of corruption (Rule of Law Index)
	Procedural Efficiency	The distribution infrastructure of goods and services is generally inefficient (World Competitiveness Yearbook)
	Judicial Impartiality	Criminal system is free of improper government influence (Rule of Law Index)
	Judicial Impartiality	Alternative dispute resolution mechanisms are accessible, impartial and effective (Rule of Law Index)
	Corruption	Corruption widespread throughout the government (Gallup)
	Business Regulation	Number of documents to import (Doing Business)
	Corruption	Corruption widespread within businesses (Gallup)
	Business Regulation	Number of documents to export (Doing Business)

TABLE 2 Key Determinants of the Quality of Government Index.

	SUB-INDICES	VARIABLE DESCRIPTION (DATA SOURCE)
LIFE	Crime	Correctional system is effective in reducing criminal behavior (Rule of Law Index)
	Education	Standard deviation of mean science score for 15-year-old students (PISA)
	Crime	Criminal adjudication system is timely and effective
	Civil Justice	Civil justice is effectively enforced (Rule of Law)
	Public Health	Quality of healthcare (Gallup)
	Education	Mean reading score for 15-year-old students (PISA)
	Environment	Quality of water (Gallup)
	Education	Mean science score for 15-year-old students (PISA)
	Other Public Services	Satisfaction with roads and highways (Gallup)
	Crime	Criminal investigation system is effective (Rule of Law Index)

TABLE 3 Key Determinants of the Quality of Life Index.

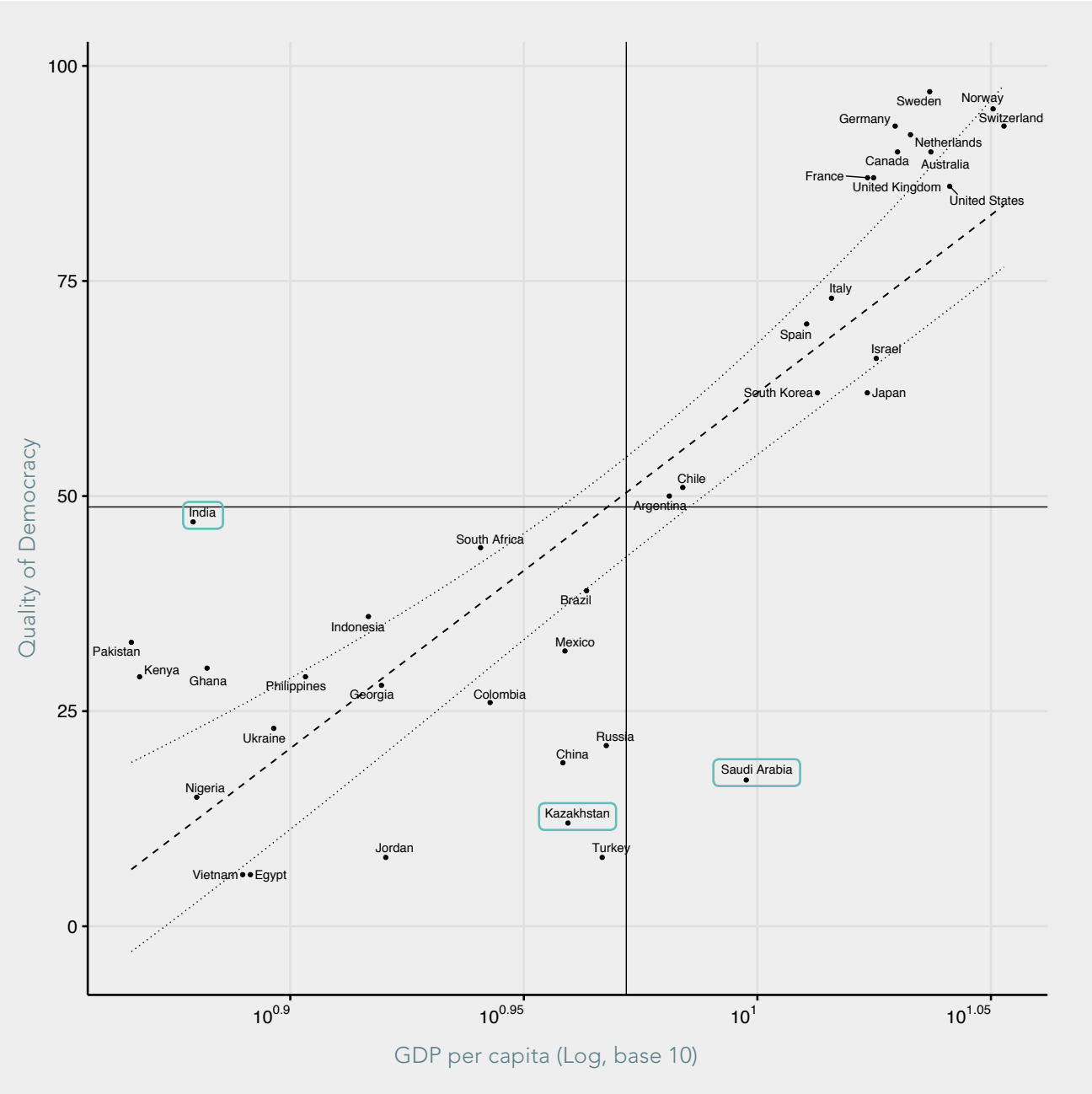


FIGURE 11

Relationship between the QoD index and the level of economic development in terms of (log) GDP per capita.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

2.3 THE MAIN INDICES ADJUSTED BY LEVEL OF DEVELOPMENT

As a further measure to describe the governance of those countries that we examine, we can also adjust the indices to account for differing levels of economic development. This is beneficial for at least two reasons (see Stanig 2014). First, it offers a measure of whether countries are over- or underachievers on these governance indicators based upon their levels of economic development. This captures the notion that it is more impressive for less economically developed countries to obtain scores similar to their more economically developed counterparts, than it is the other way round. Second, it purges correlations between the indices of the effect of economic development, allowing us to see whether the associations between indices are solely a product of differing development levels.

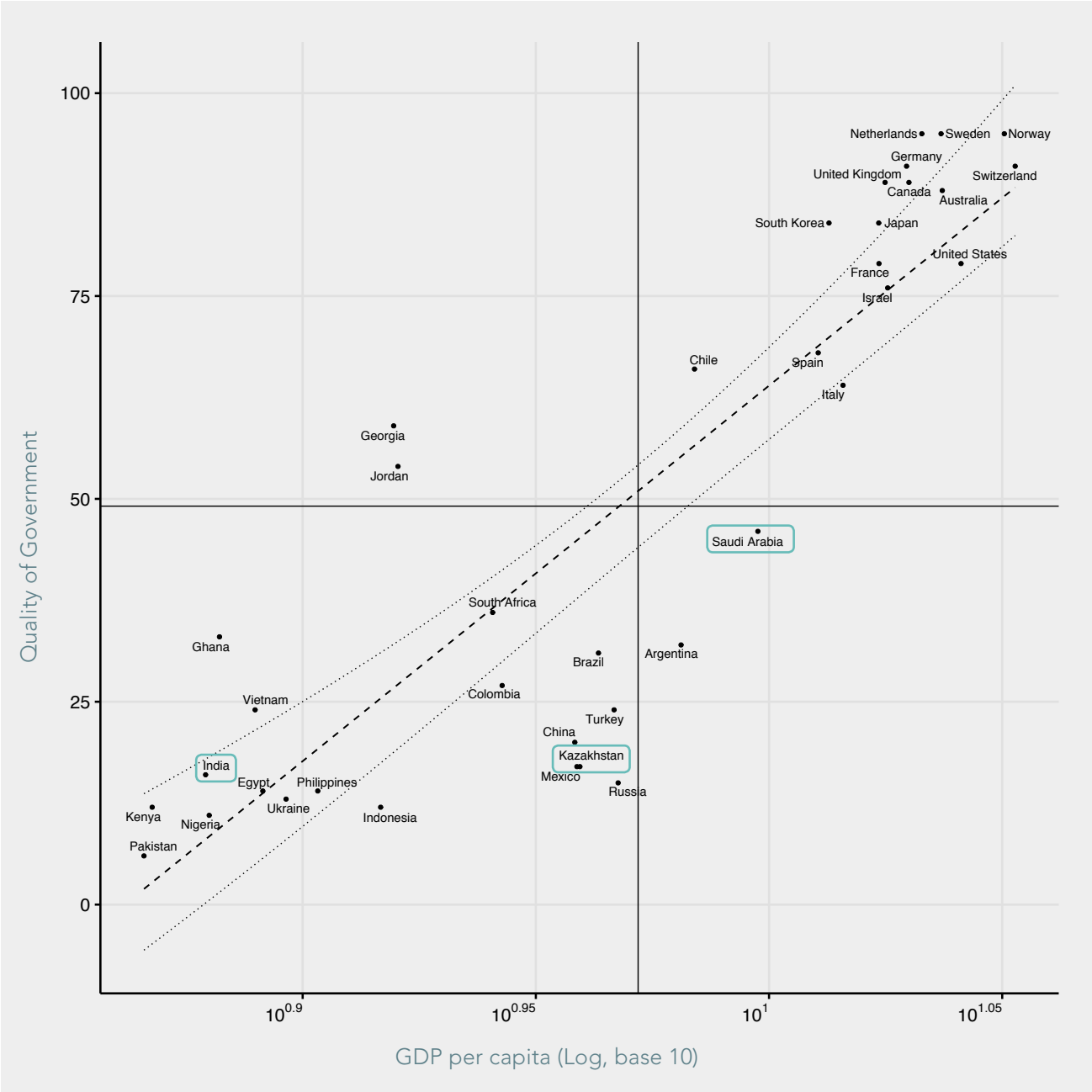


FIGURE 12

Relationship between the QoG index and the level of economic development in terms of (log) GDP per capita.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Figures 11 to 13 illustrate this concept by displaying the relationship between the three indices and the countries' level of development. As seen across the three figures, there is a general positive association between the two, in that higher levels of economic development are related to higher scores on the indices. However, this is not an iron law, with some countries appearing to over- and underachieve on the index in this setting. In particular, there is a considerable amount of variation with regard to the QoD index (**Figure 11**), in the lower left quadrant. While some countries are seen to be doing well in terms of QoD despite low levels of economic development, for instance India, others are considerable underachievers, for instance Kazakhstan and Saudi Arabia. A similar pattern is found with regard to QoG (**Figure 12**) and QoL (**Figure 13**) as well.

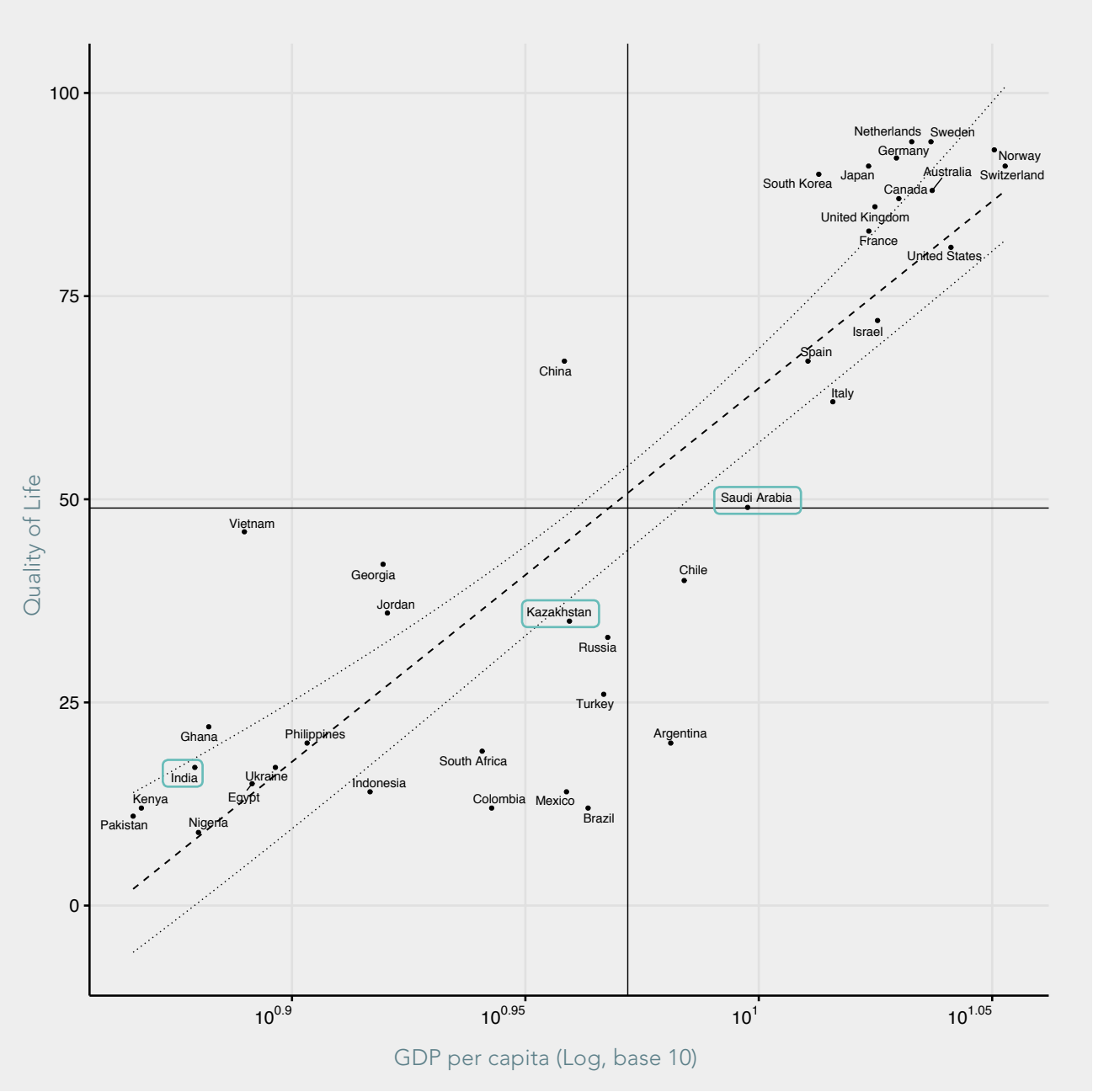
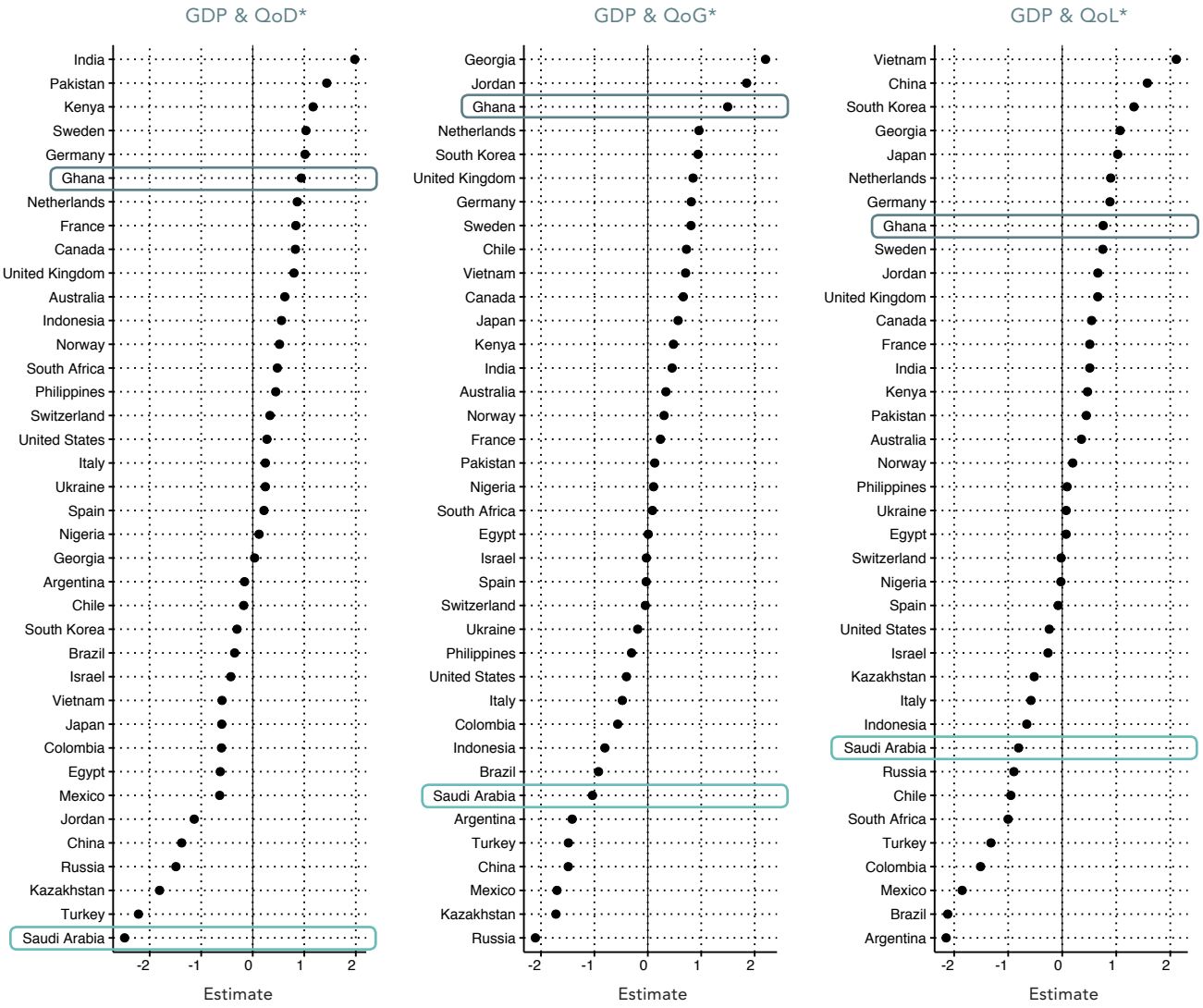


FIGURE 13

Relationship between the QoL index and the level of economic development in terms of GDP per capita.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Given these broad insights, we again construct a measure for whether countries are "overachievers" or "underachievers" in the indices, this time given the level of economic development. **Figure 14** displays how countries are ranked by this measure. In doing so, we see that some of the overachievers based upon the index from the previous section are now underachievers, and vice versa. Take the case of Saudi Arabia: While it was previously an overachiever in terms of QoL given its poor performance on QoD, this is no longer the case. In fact, given the level of economic development, its QoL performance can clearly be classed as an underachiever, lying close to the lowest ranks on this measure. This is suggestive, as much of its previously indicated overachievement is likely based upon its large oil wealth. Without such wealth, the governance structures in place would likely lead to considerably worse QoL than is currently the case.



*2018 is the most recent year for which data was collected.

FIGURE 14

Ranking of countries according to whether they are over- or underachievers on the index, given the level of economic development.

Note: Positive values indicate that a country has a higher than expected value of an index, given its level of economic development.

Some other countries are seen to be doing much better when adjusting the indices by level of economic development. Ghana is one such country. In **Figure 10** in the previous section, Ghana was an underachiever in terms of its QoL, when taking into account its scores for QoG. However, examining **Figure 14** here, Ghana shows a more nuanced picture: It was considered an underachiever previously but it is a strong overachiever on all three indices based upon its level of economic development.

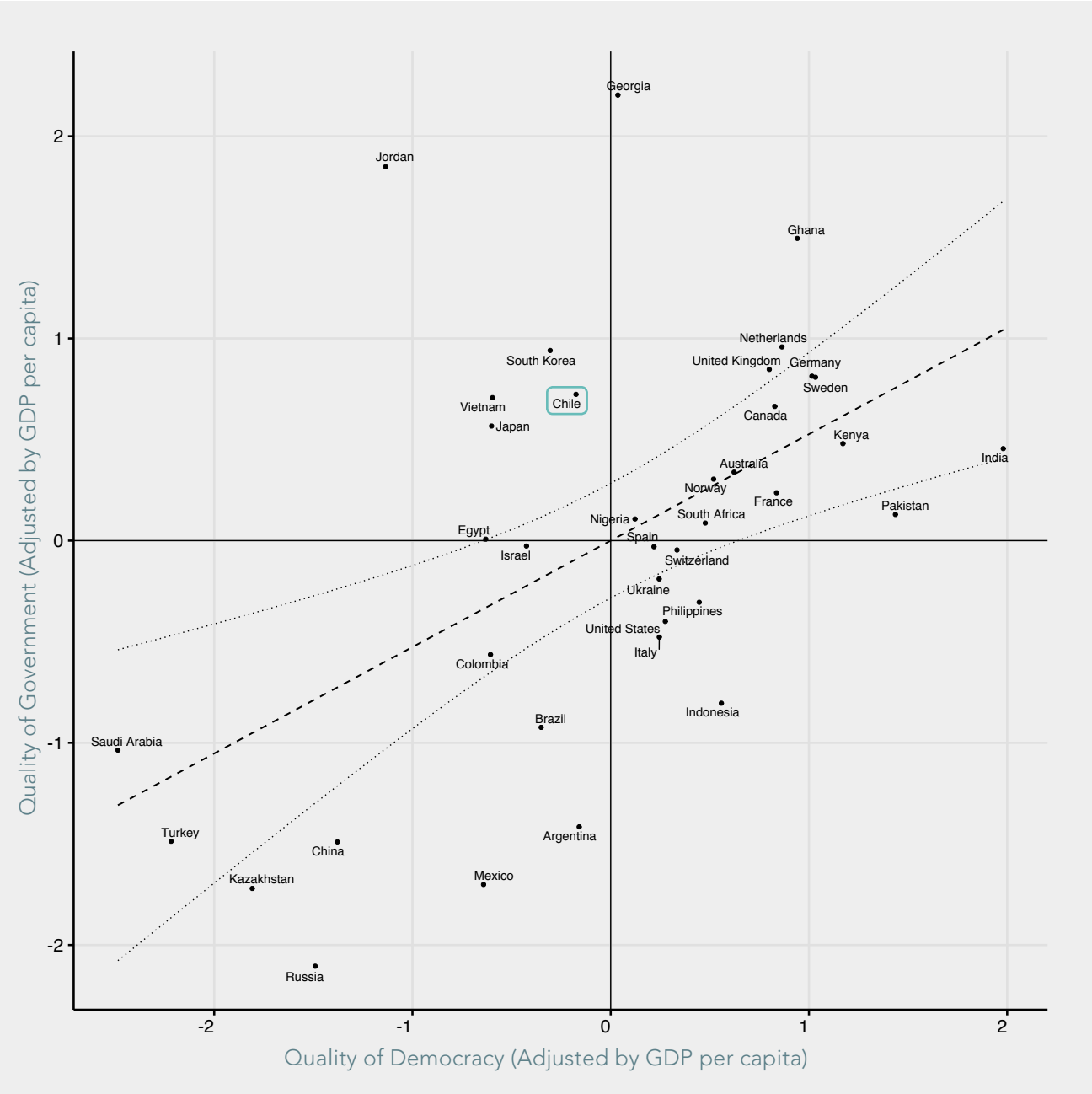


FIGURE 15

Relationship between quality of government and quality of democracy, adjusted for level of economic development.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Finally, we can again look at the relationship between the main indices after adjusting for levels of economic development. **Figures 15 to 17** plot these associations for the three unique comparisons that arise from the three indices. Even after adjusting for the countries' economic development, we still find positive associations between the indicators. Therefore, these indicators are not just picking up that more economically developed countries tend to perform better. As can be seen from the graphs, there is a tight association between the QoD index and the QoG index (**Figure 15**), as well as the QoG index and the QoL index (**Figure 16**). In comparison, the association is weaker between the QoD index and the QoL index (**Figure 17**). This suggests that, regardless of their economic wealth, QoG is more highly correlated with QoL than QoD.

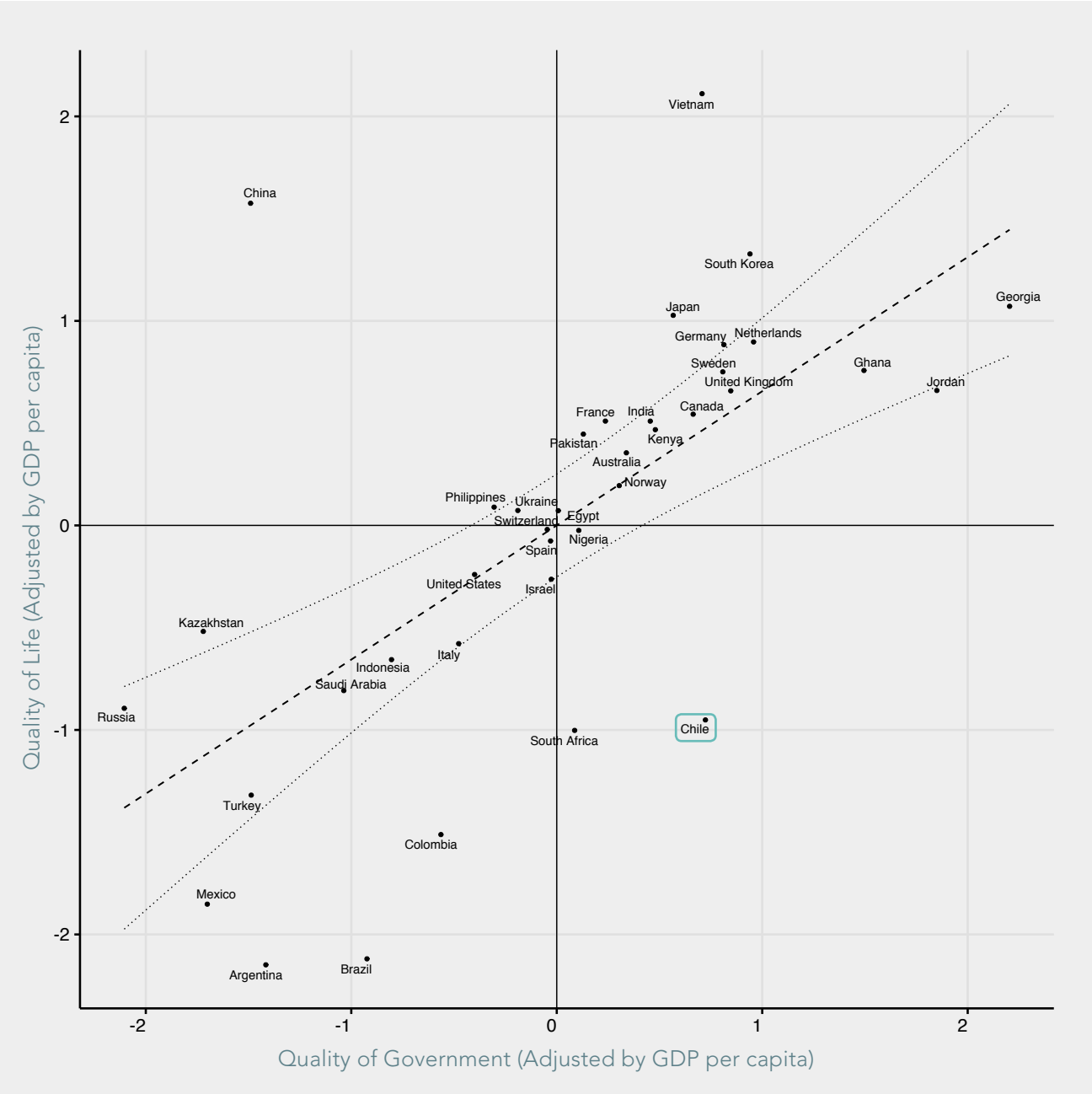


FIGURE 16

Relationship between quality of life and quality of government, adjusted for level of economic development.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

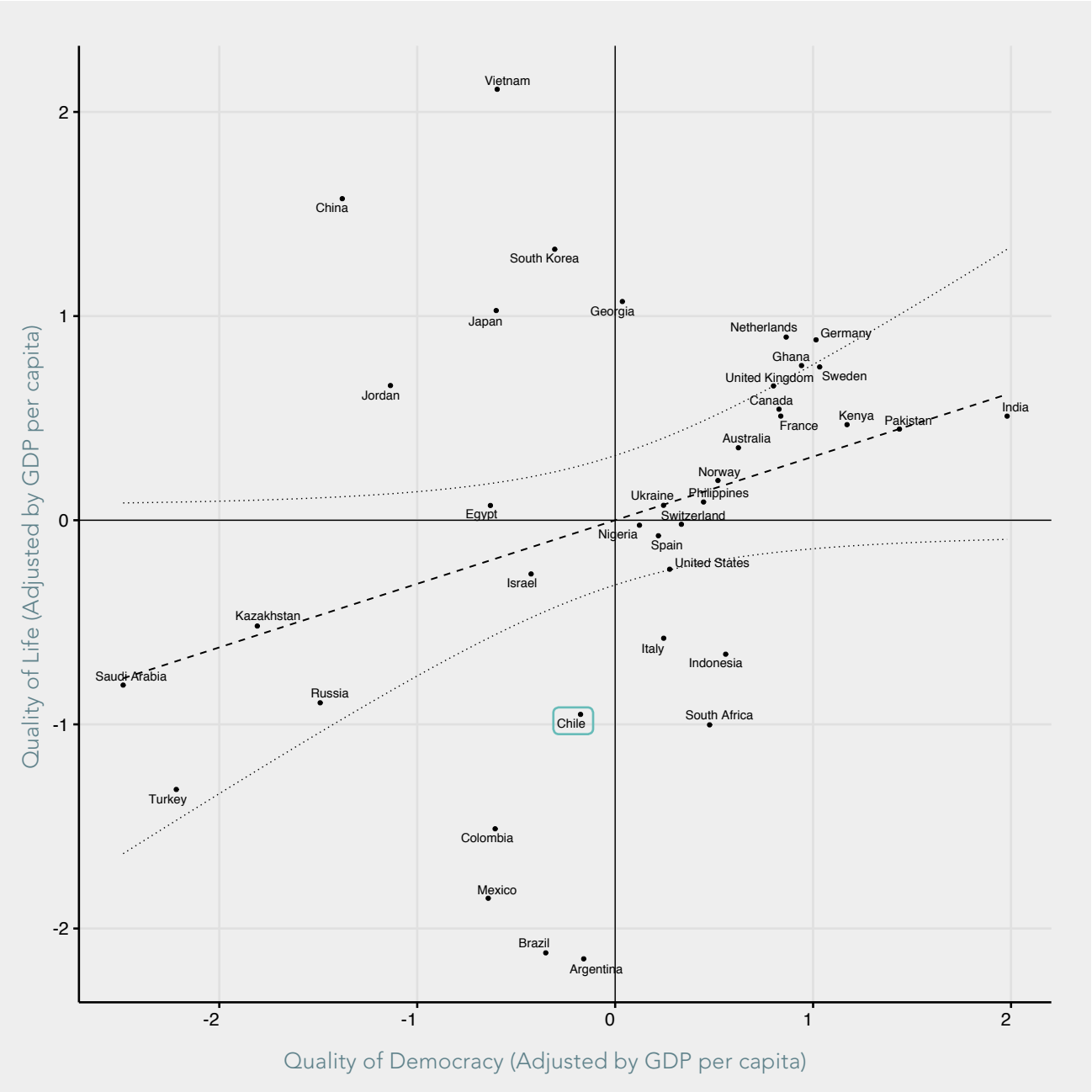


FIGURE 17

Relationship between quality of life and quality of democracy, adjusted for level of economic development.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Of interest here is the case of Chile, an overachiever given its level of economic development when it comes to QoD as well as QoG. Yet when looking at its performance in terms of QoL, Chile is not as successful. In this case, Chile's QoL performance, when adjusted for its level of economic development, is close to what is expected—decidedly average. Thus, of interest for further research and understanding of governance issues would be why Chile is failing to translate its successes in quality of democracy and quality of government into improved quality of life for its general population.

2.4 DISAGGREGATED INDICATORS OF GOVERNANCE

In addition to the three high-level, aggregate indicators of governance, we also create a further 25 sub-indices that form more disaggregated measures of governance. These sub-indices are based on the categories that encompass the high-level dimensions of quality of democracy, quality of government, and quality of life that are discussed in greater detail in Part Two, Chapter 2 of this report. Each of these mid- level indices is generated using the same methodology as the high-level indices reported on in the previous section.[6]

To illustrate the usefulness of these mid-level indices, we turn to examining associations between the disaggregated QoL sub-indices and the main QoG index. **Figure 18** displays these associations (as dots without country names). We can see that the general measure of QoG is strongly positively associated with all of the disaggregated QoL measures, except price control of natural monopolies.

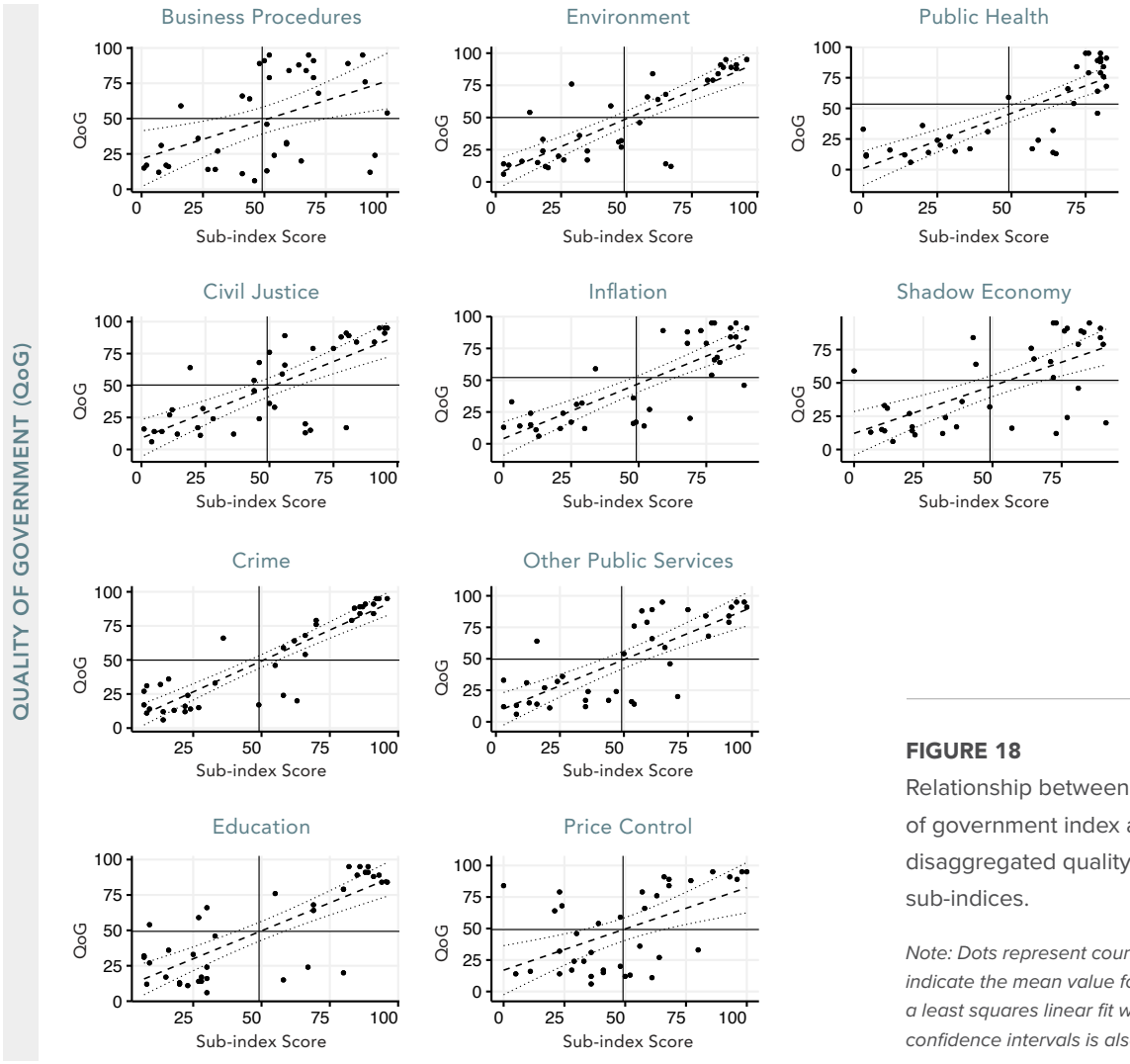


FIGURE 18

Relationship between the quality of government index and the disaggregated quality of life sub-indices.

Note: Dots represent countries. Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

[6] We use a slightly different prior specification for the discrimination parameters, the parameters that measure how "well" a variable is explained by the estimated indicator, for some of the mid-level indices in cases where there are few variables measuring the particular phenomenon of interest, generally five or less. The exact details of this approach are discussed in Part Two, Chapter 4, but it should be noted that the required assumptions are weaker than using a weighted average with pre-defined weights.

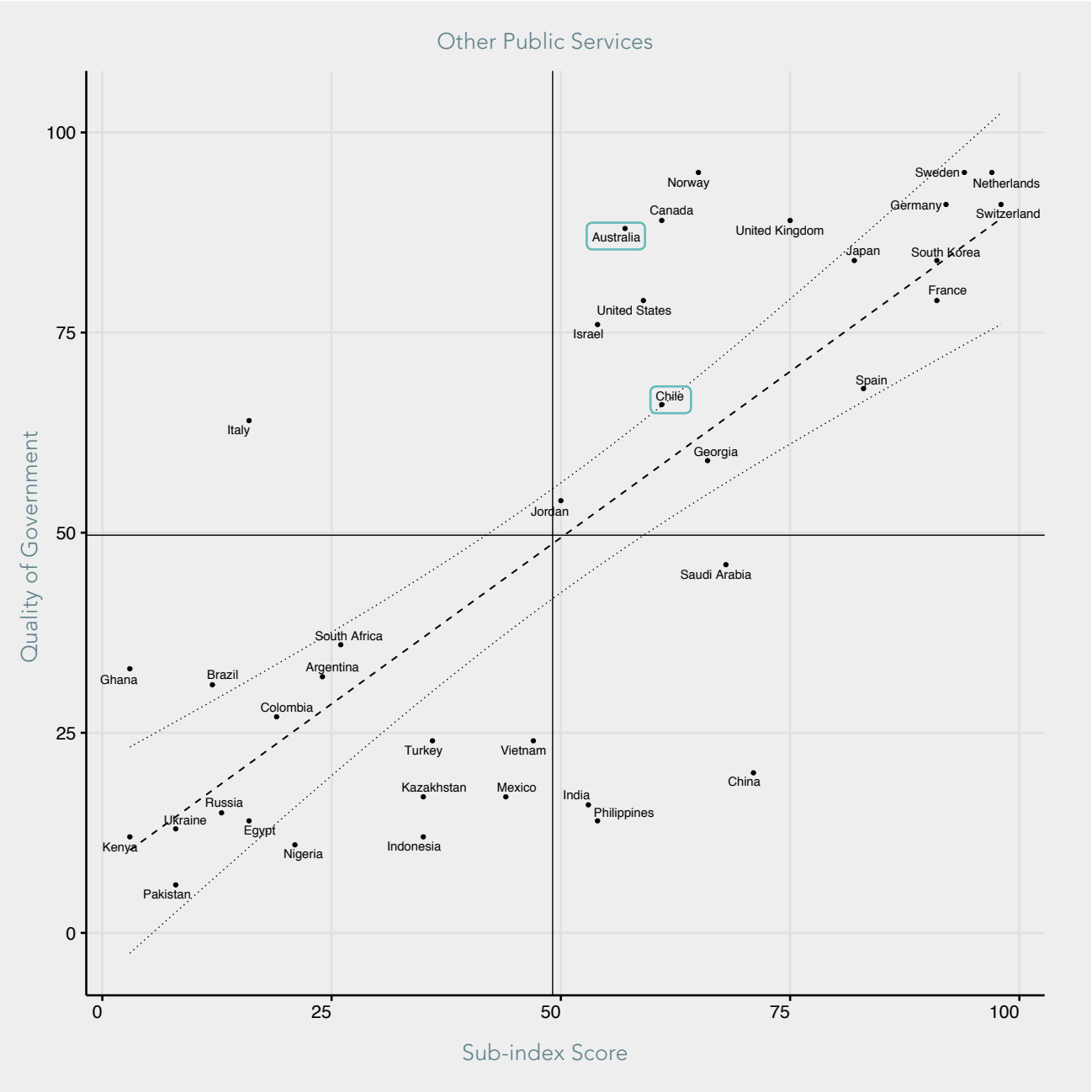


FIGURE 19

Relationship between the quality of government index and other public services sub-index.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Of interest is the case of Australia, a country that has a very high score on the QoG index. While this generally is associated with Australia performing well in the various categories of QoL, there is one case where this is not true: as shown in **Figure 19**, Australia's performance is close to that of Chile with regards to other public services. Inspection of the raw data highlights the reasons why this is the case. Australia performs particularly poorly for a highly economically developed country with regard to public transportation. Therefore, inspection of the disaggregated sub-indices allows us to highlight areas of concern and future improvement, not just in the case of emerging markets and developing countries, but also in highly developed countries.

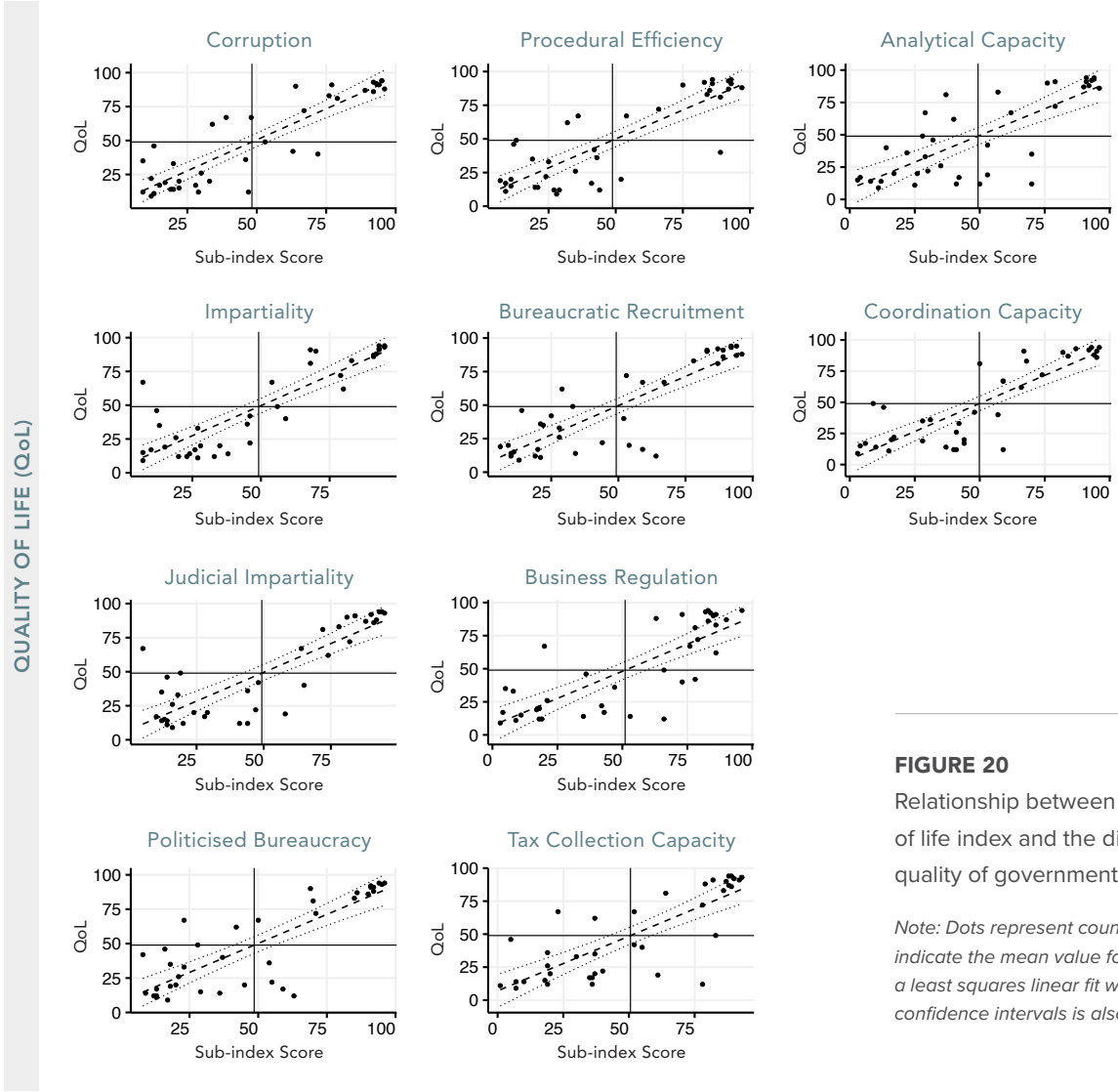


FIGURE 20

Relationship between the quality of life index and the disaggregated quality of government sub-indices.

Note: Dots represent countries. Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

We can also examine which aspects of QoG are most associated with higher QoL scores by viewing the correlation between the disaggregated QoG indices and the high-level QoL index. In the set of plots in **Figure 20**, we can see that for most of the QoG measures, there is a strong positive association with the QoL index. In particular, the disaggregated measures for corruption (**Figure 21**), judicial impartiality (**Figure 22**) and general impartiality (**Figure 23**) are among the categories most strongly associated with a good quality of life score.

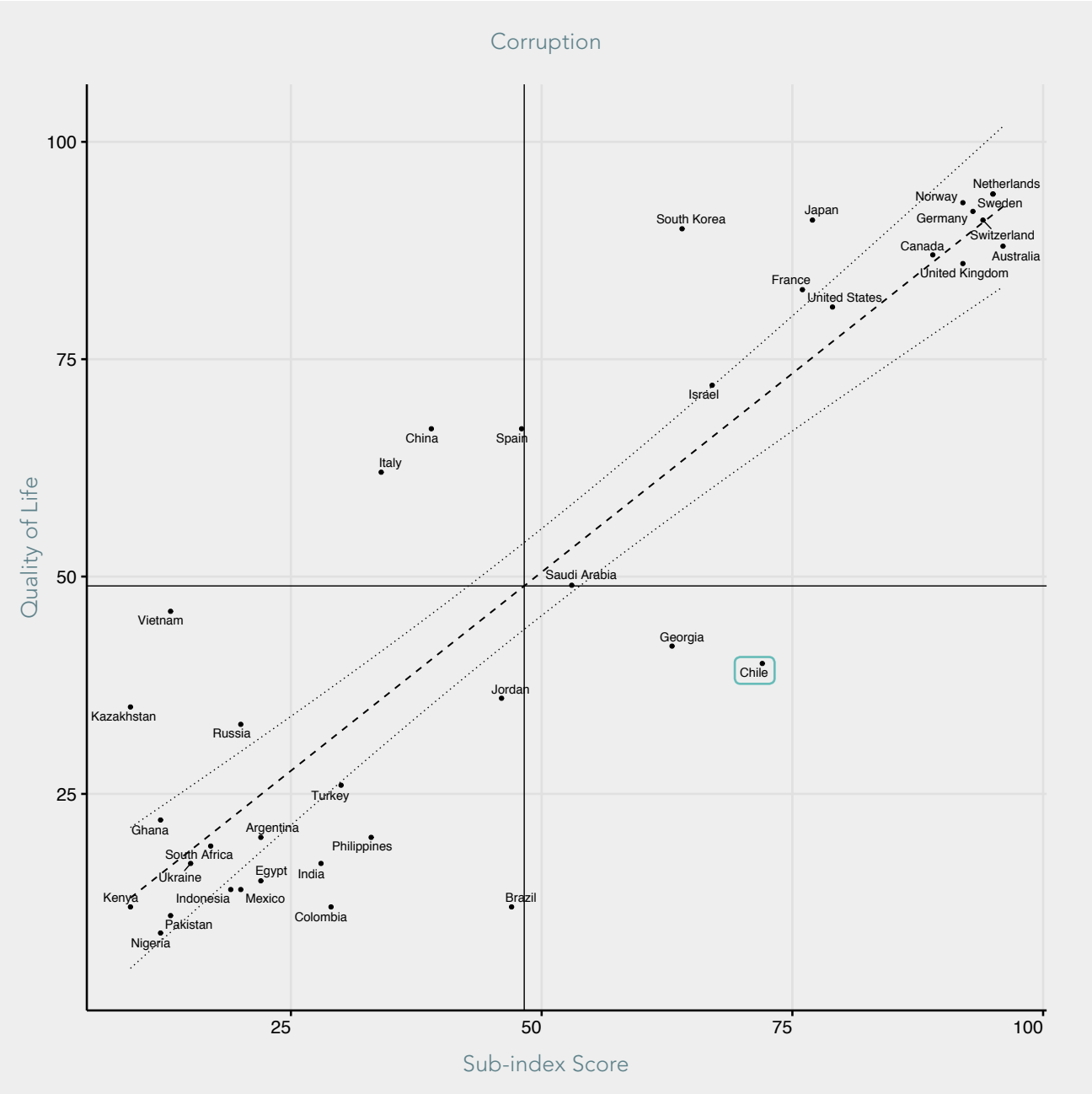


FIGURE 21

Relationship between the quality of life index and the corruption sub-index.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

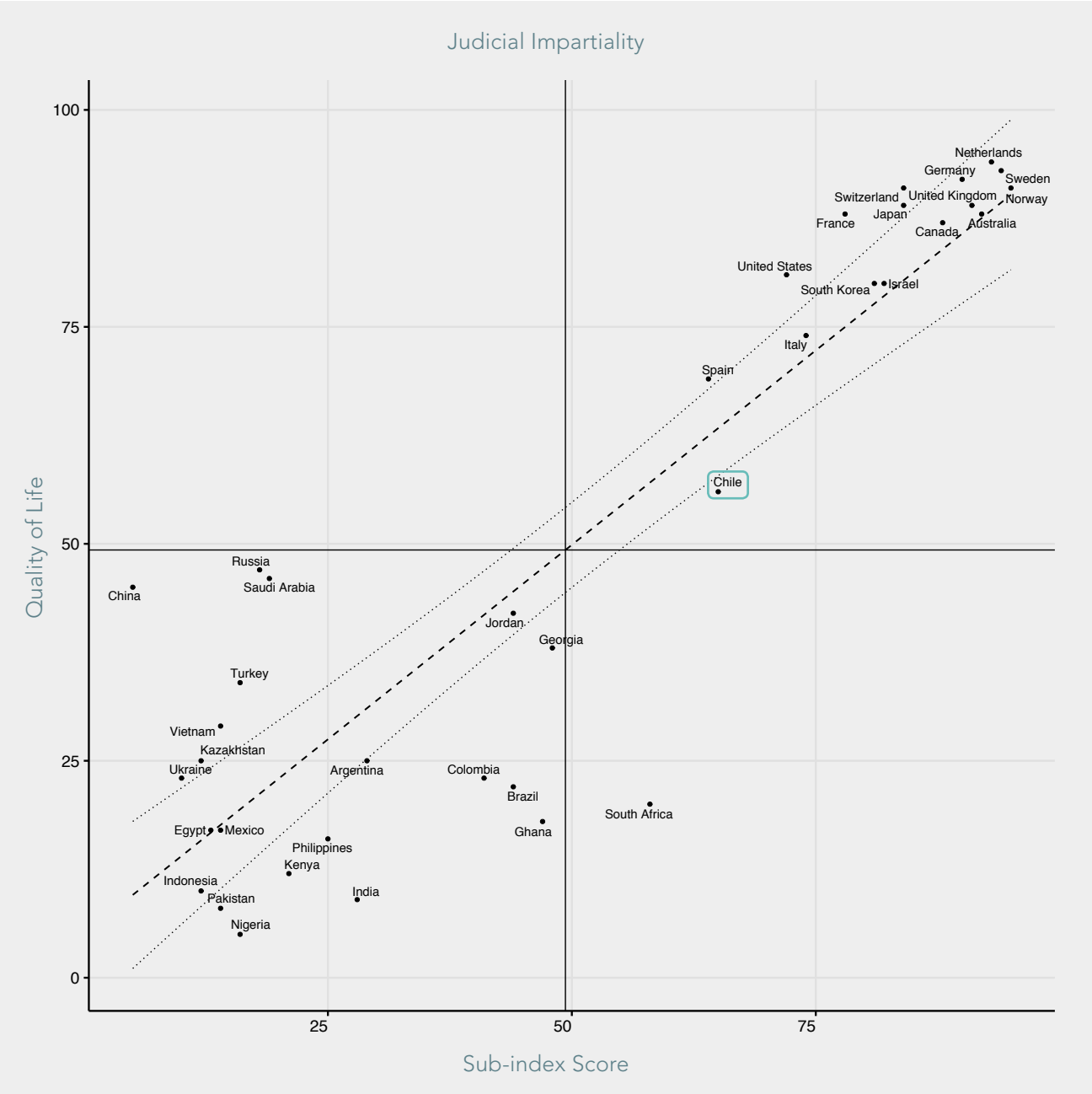


FIGURE 22

Relationship between the quality of life index and the judicial impartiality sub-index.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

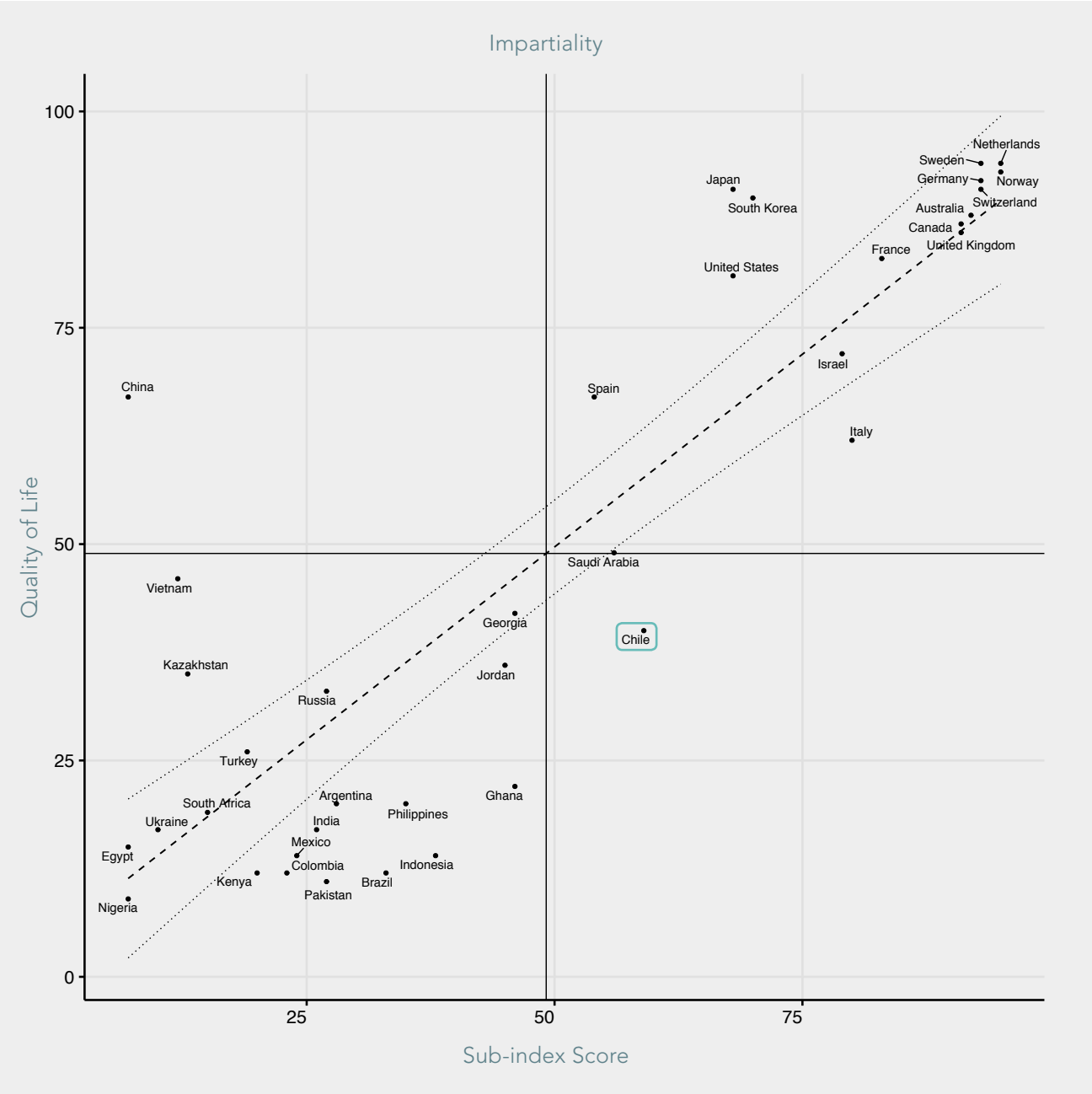


FIGURE 23

Relationship between the quality of life index and the impartiality sub-index.

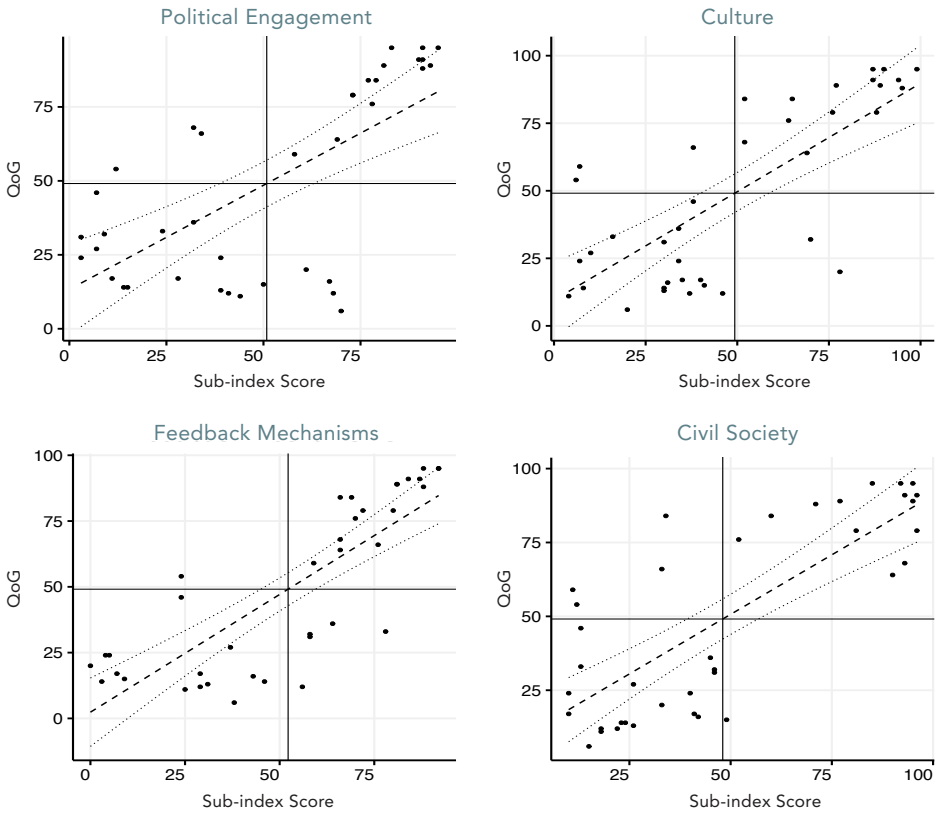
Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Examining particular cases shows that Chile is a significant underachiever in terms of QoL, given its strong QoG performance (see **Figure 10**). In the case of QoG, Chile has above average scores for (control of) corruption, judicial impartiality and general impartiality but these traits of good governance are not necessarily being translated into equally good results in terms of QoL in general. Indeed, Chile's slightly below average overall score in QoL masks variation within the disaggregated results. In terms of more economic-based outputs, such as public services in the form of infrastructure and control of the shadow economy, Chile performs above average, yet at the same time, it performs well below average on crime control and education. Therefore, of further interest would be why Chile is not able to transform its QoG advantage into better outcomes on these aspects of human wellbeing, compared to its success in the economic sphere.

FIGURE 24

Relationship between the quality of government index and the disaggregated quality of democracy sub-indices.

Note: Dots represent countries. Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.



Finally, we can analyze the relationships between the disaggregated QoD indicators and the aggregate QoG index to explore which parts of the "enabling environment" are associated with good performance in terms of QoG. As evident in **Figure 24**, four of the five elements of the governance context—namely political engagement, feedback mechanisms, culture and civil society—are quite strongly associated with QoG scoring. Notably, feedback mechanisms (**Figure 25**) and political engagement (**Figure 26**) refer to the flow of information between government and citizens and to the possibility that citizens become actively involved in bringing their concerns to governments attention.

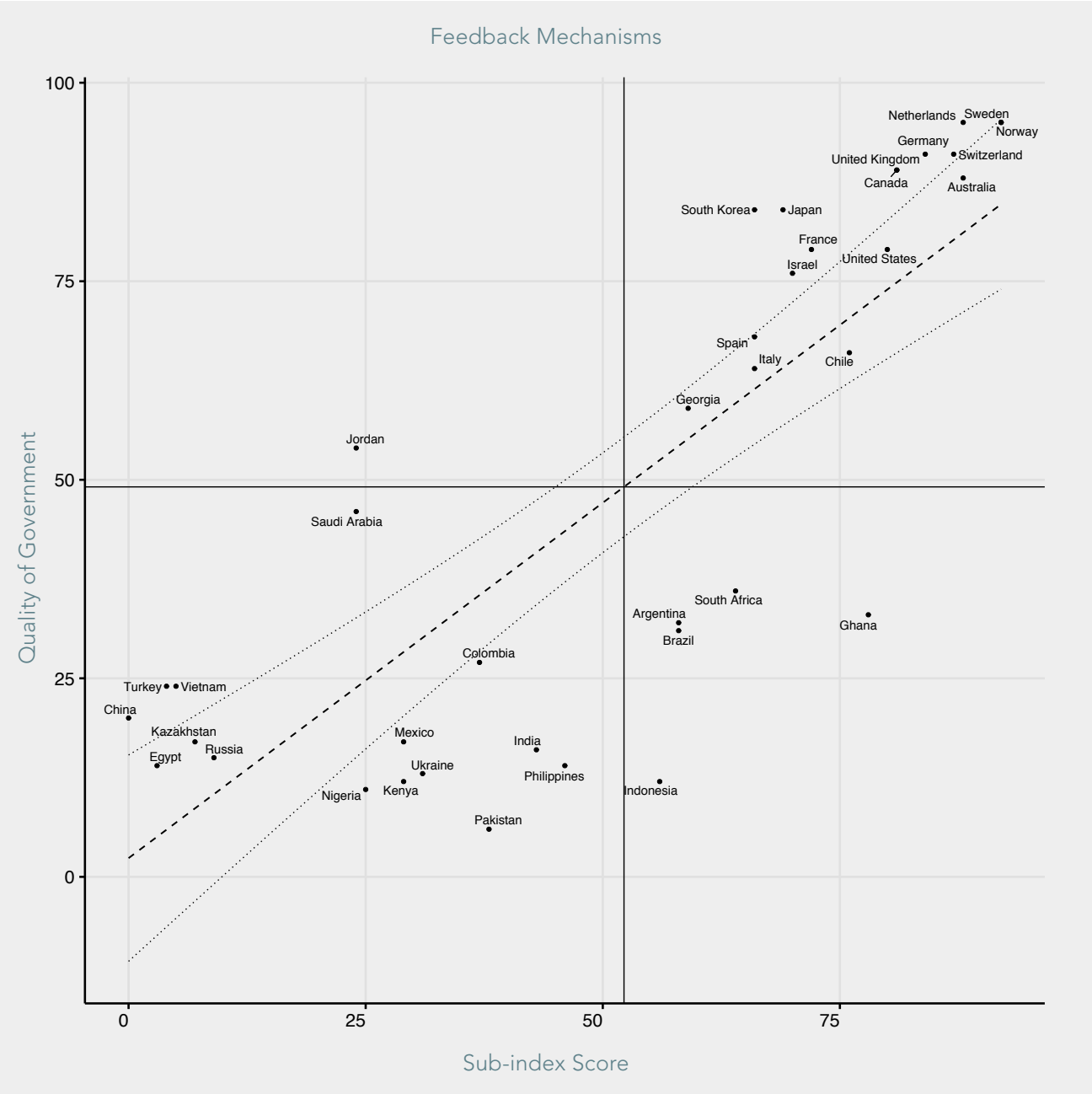


FIGURE 25

Relationship between the quality of government index and the feedback mechanisms sub-index.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

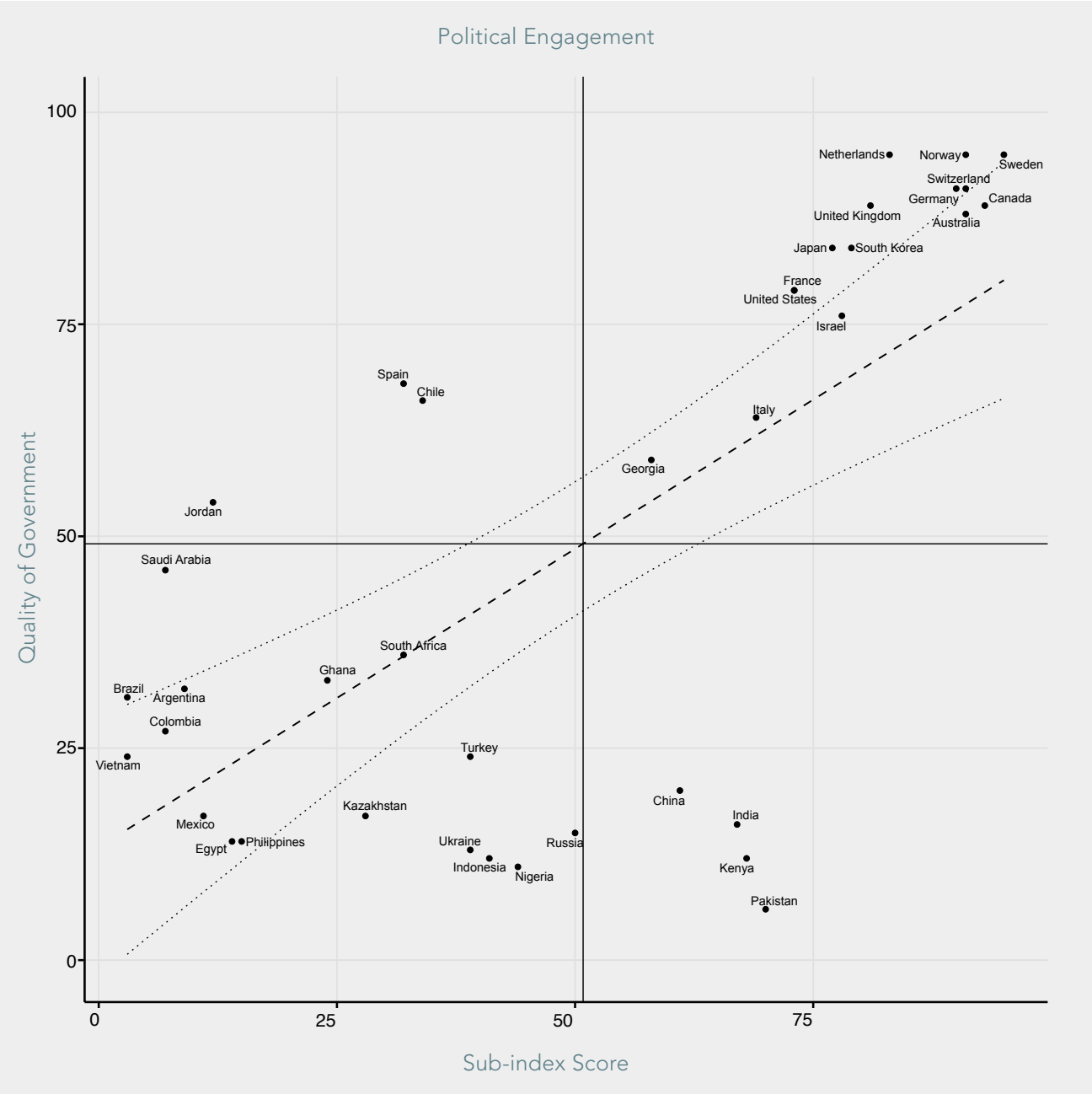


FIGURE 26

Relationship between the quality of government index and the political engagement sub-index.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

2.5 ADDITIONAL EXPLORATIONS: RELATING SPENDING TO QUALITY OF LIFE

To examine the extent to which government spending might be associated with performance in terms of quality of life, we combine the QoL index and sub-indices on health and education with data on public expenditures. To do so we first summarize the association between a specific index or sub-index and the relevant form of public expenditure with a least squares linear fit and scatter plots. Then using this analysis—essentially the same approach we used for examining performance taking into account GDP per capita—we can see whether a country has a higher (or lower) than expected QoL given the level of government spending as a percentage of GDP. In this way we can again identify the over- and underachievers.

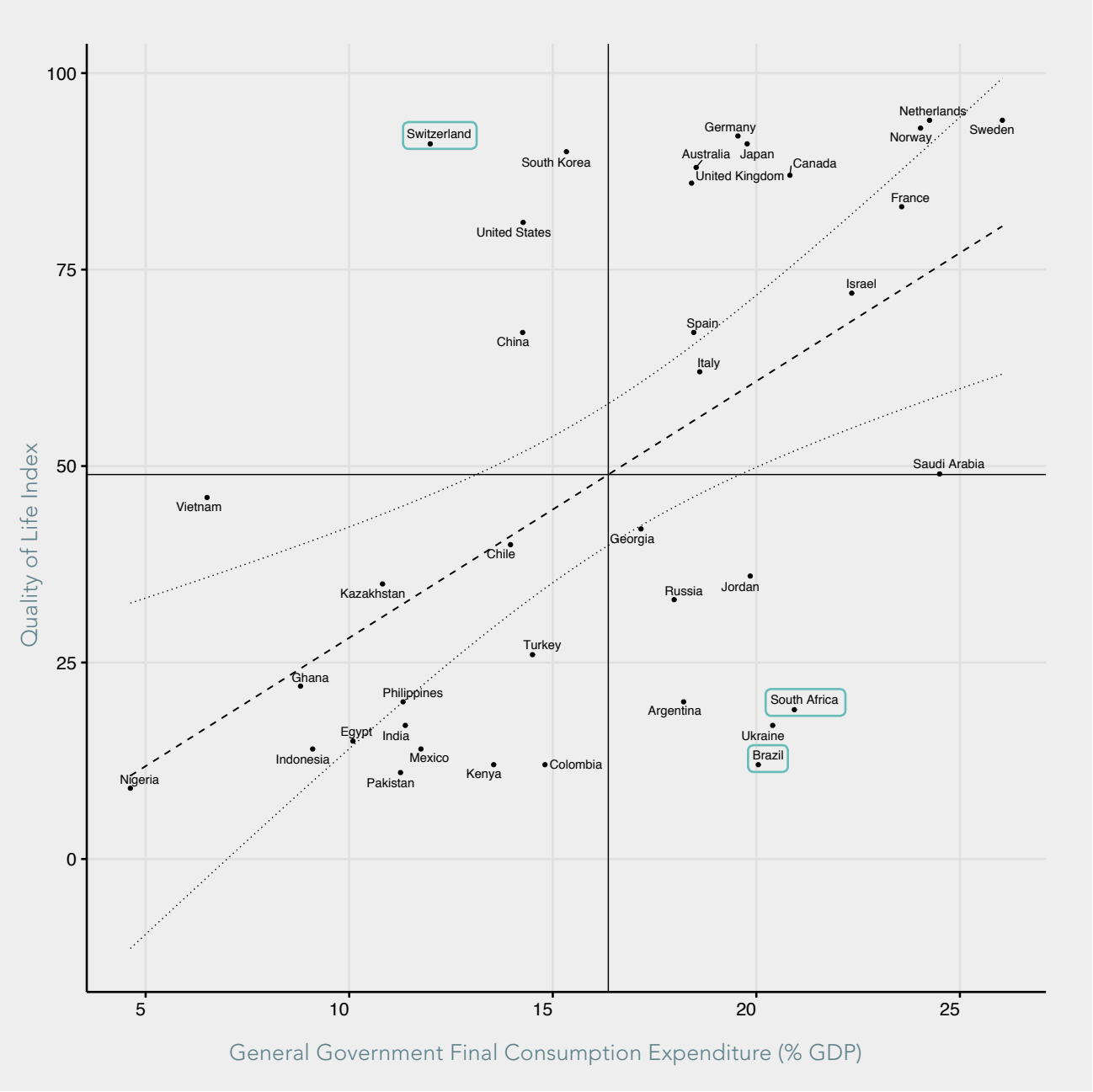


FIGURE 27

Relationship between the quality of life index and general government spending as a percent of GDP.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Figure 27 displays the relationship between government spending[7] and the higher-level QoL index. As we can see, there is a significant positive association between the extent of government spending and a country's score on the index. Even so there are countries that manage to perform well even with comparatively low government spending (upper left quadrant) and those that underperform given their level of government spending (lower right quadrant). For example, general public spending accounts for an above-median share of GDP in Brazil and South Africa, but the countries' performance in terms of QoL is well below median. On the other side, Switzerland's general government expenditures are quite modest, relatively speaking, in relation to the QoL it achieves.

[7] Data from the World Development Indicators, World Bank. NE.CON.GOVT.ZS. General government final consumption expenditure (formerly general government consumption) includes all (central and local) government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation.

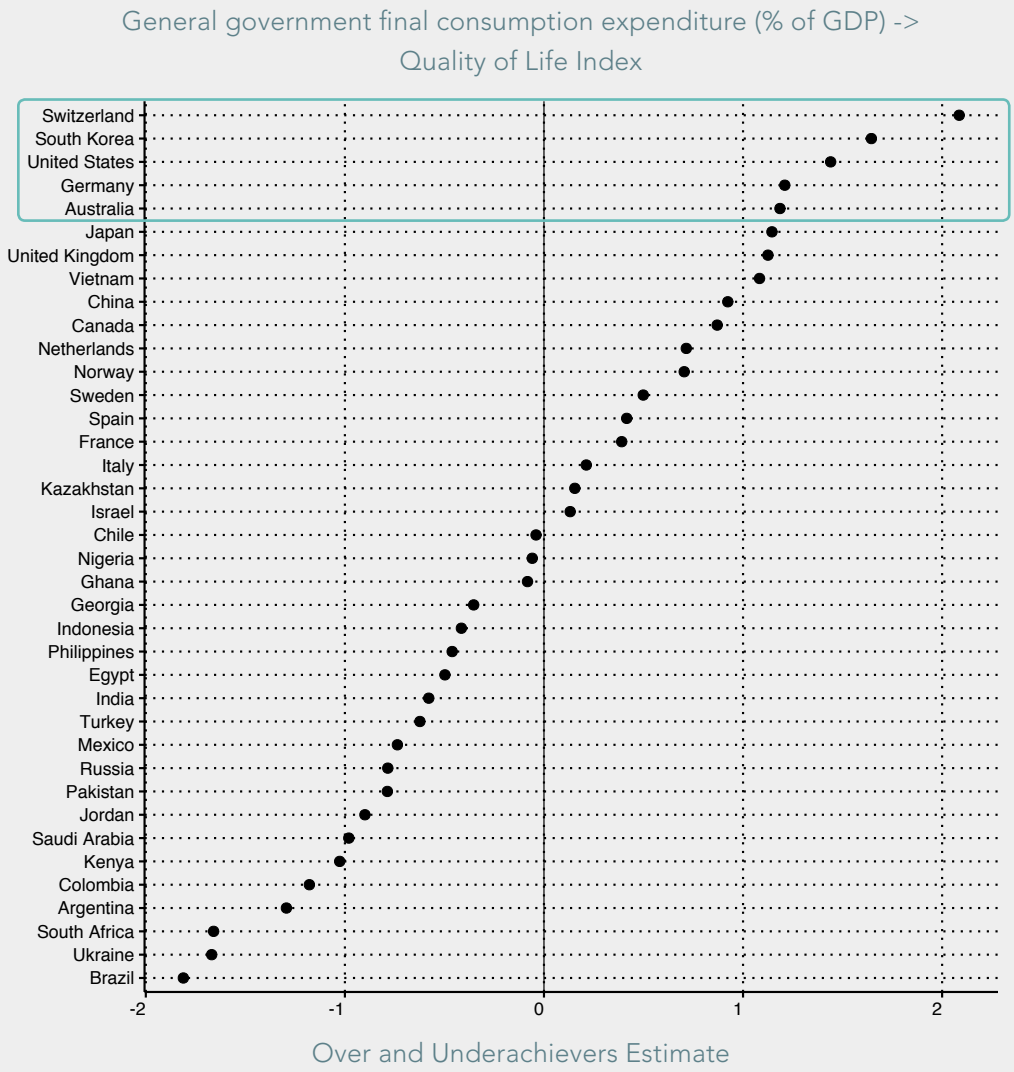


FIGURE 28

Over- and underachiever measure on the quality of life index, given a country government's expenditure as a % of GDP.

Figure 28 displays a measure of over- and underachieving in QoL, by calculating the extent to which countries have higher or lower QoL scores given the relationship between government spending and the QoL score. We can see that Switzerland is estimated to be an exceptional overachiever, achieving high- level results with relatively smaller levels of public expenditure. Other countries that performed much better than expected include the United States and South Korea, with lower levels of public expenditure, as well as Germany and Australia, with above-median levels of expenditure.

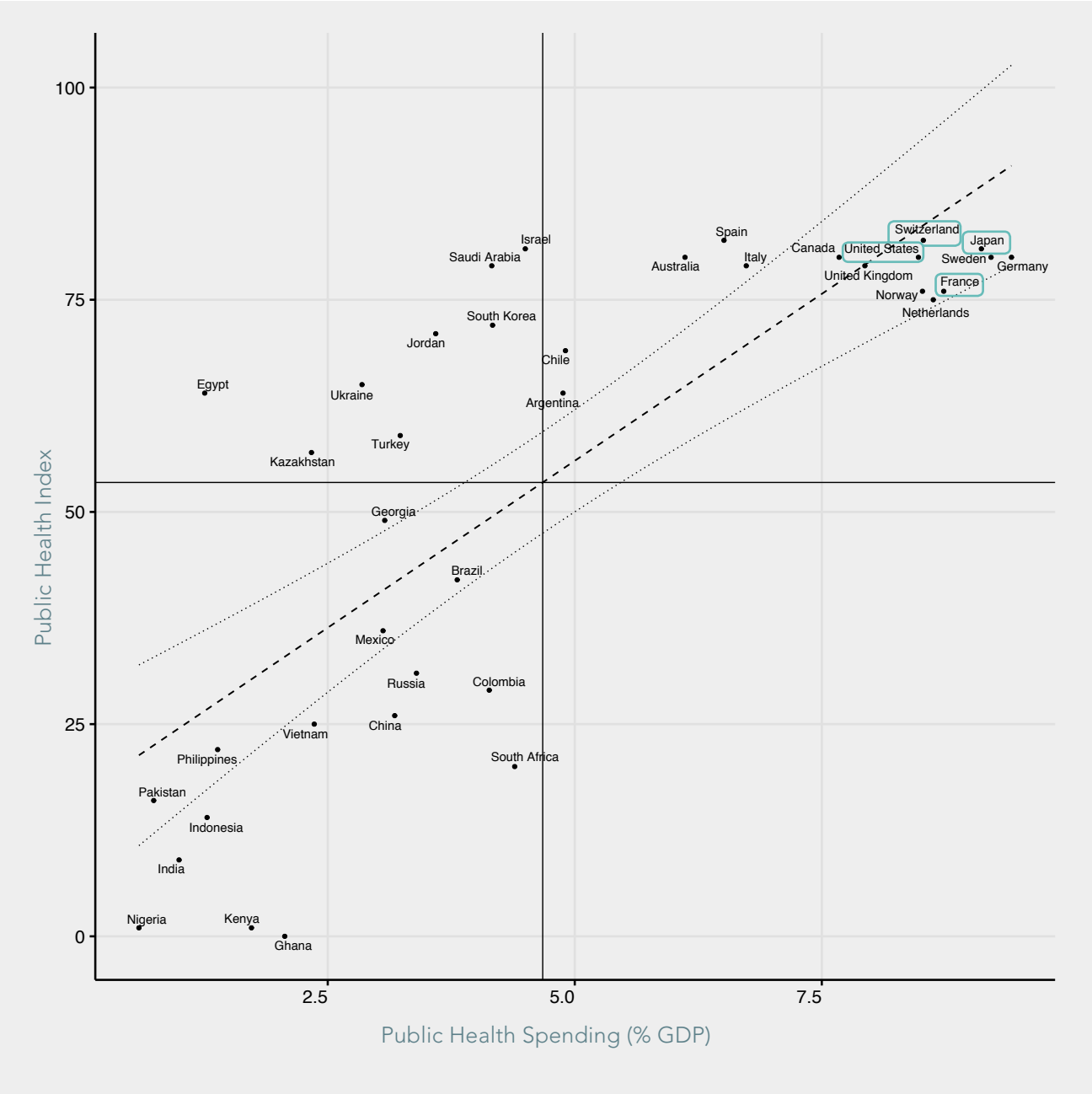


FIGURE 29

Relationship between the public health sub-index and public health spending as a percent of GDP.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Moving to the disaggregated sub-indices, we can now look at the relationship between public health expenditures[8] and scores on the health sub-index, as shown in **Figure 29**. As before we can see a significant positive association, showing that higher levels of health expenditure are generally associated with higher scores on the public health sub-index. The United States poses an interesting case: in relation to its public spending on health, its QoL performances seem to be in line with those of other countries such as France, Japan, and Switzerland. If we were to include also private spending on health, however, the US would stand alone to the far right of the median. Considering the large total expenditures on healthcare within the country (among the highest in the world as a % of GDP and the highest in the world in terms of per capita spending), the United States appears to have a highly inefficient health system.

[8] Data from the World Development Indicators, World Bank. SH.XPD.GHED.GD.ZS. Public health expenditure consists of recurrent and capital spending from government (central regional, and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.

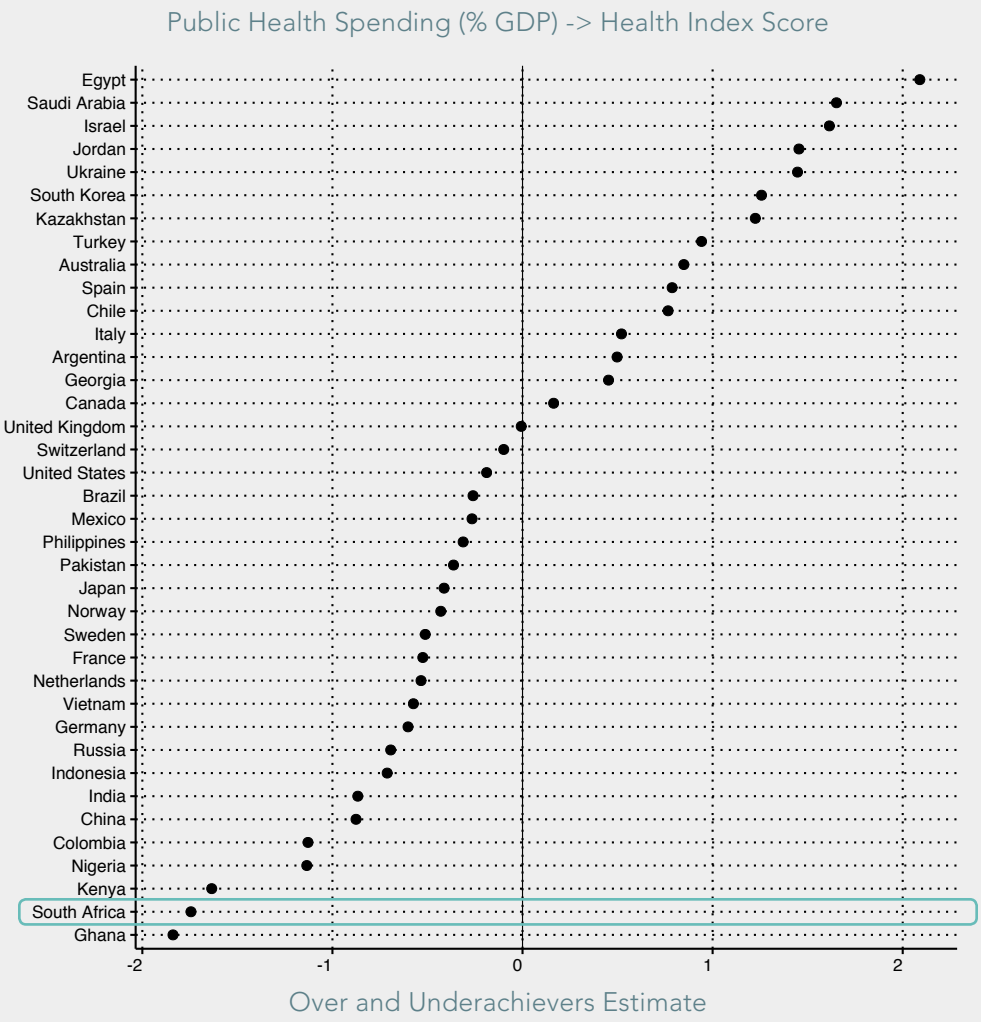


FIGURE 30

Over- and underachiever measure on the health sub-index, given a country's government expenditures as a % of GDP.

Figure 30 displays more formally countries' over- and underachievement with regard to health care. South Africa fares among the worst of all countries with regards to the health outcomes achieved, likely due to the particularly severe public health issues faced, which health expenditures close to the mean of all countries are not equipped to handle.

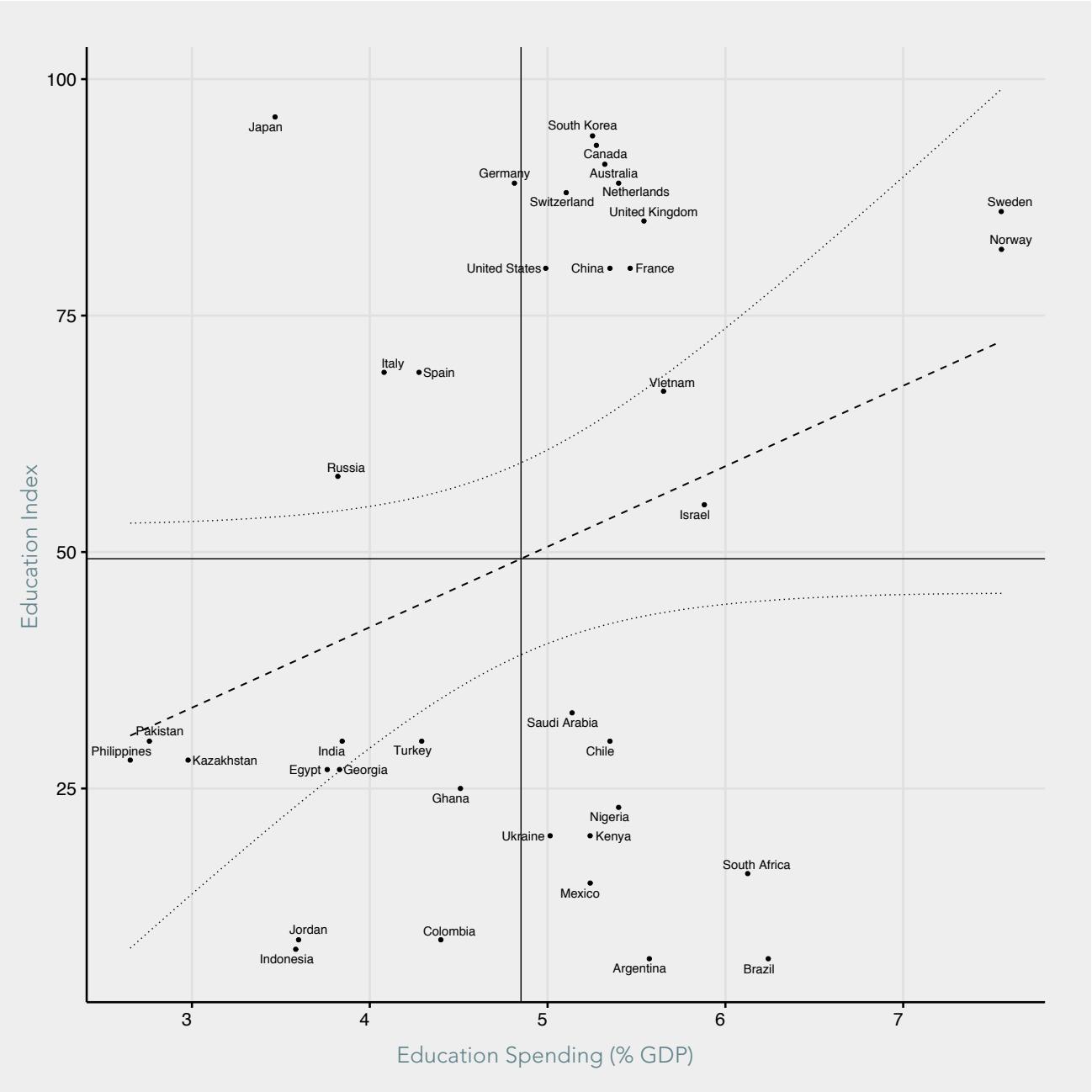


FIGURE 31

The relationship between the education sub-index and education spending as a percentage of GDP.

Note: Solid lines indicate the mean value for the index, while a least squares linear fit with 95 percent confidence intervals is also displayed.

Finally we can examine the relationship between education expenditures and scores on the education sub-index. **Figure 31** shows that, as was the case for general QoL and health outputs, there is a positive relationship between education spending as a percentage of GDP[9] and a country's score on the education sub-index. However this relationship is considerably weaker than the previous relationships.

[9] Data from the World Development Indicators, World Bank. SH.XPD.CHEX.GD.ZS total public expenditure (current and capital) by local, regional and central governments on education % GDP.

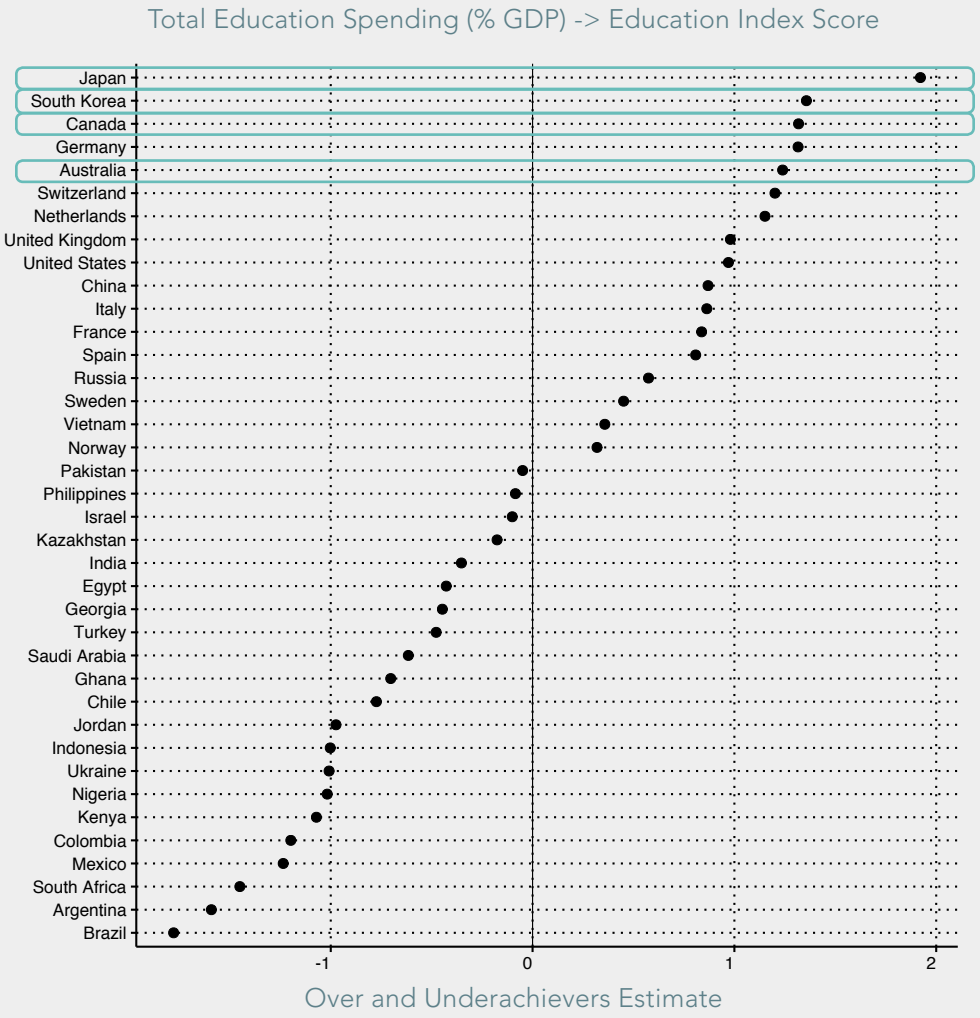


FIGURE 32

Over- and underachiever measure on the education sub-index, given a country's public education spending as a % of GDP.

Figure 32 displays the over/underachiever measure for the field of education. In this case Japan tops the list of overachievers. While its public education spending as a percentage of GDP is lower than the median, its educational outputs are on level with South Korea, Canada and Australia, which invest a higher portion of GDP. The results, however, do not take into account private spending on education such as tutoring, which frequently tends to be larger in Asian than in Western countries.

As we have shown here, the exploration of associations between government spending and quality of life—whether on a general or field-specific level—can reveal interesting cases or even perhaps patterns. However, we could not say that a certain amount of investment in, for example, education, will necessarily result in a certain level of education output. There are too many variations and variables in between. What we can say is that this is where quality of government is key.

3 CONCLUSION

In the 2019 report on the Berggruen Governance Index, we have provided an overview of some of the results as an appetizer of the possible relationships and puzzles that might be explored further. The theoretical framework, methodology and country-specific results are outlined in Part Two.

As noted at the outset, we expected no great surprises at the top of the more highly aggregated indices, portraying three dimensions of governance in the 38 countries covered, and the overall summary index. And as observed, those countries among the top ten performers on each of the three dimensions and the summary index tend also to be among the top ten on other major rankings with any relation to governance (e.g. the World Governance Indicators and Sustainable Governance Indicators) or its outcomes (e.g. the Human Development Index or Legatum Prosperity Index).[10] This provides some measure of reassurance that the indicators in the Berggruen Governance Index are not far off and confirms what several other indices have found—namely, that some countries have built up substantial governance capacities over the last decades.

Going beyond the presentation of the sum of scores for each country on a diverse set of indicators, the Berggruen Governance Index has succeeded in shifting the perspective by way of the quality of government – quality of democracy – quality of life framework. By allowing for (but not insisting upon) the existence of connections between these dimensions, we have opened up a potentially fruitful way of exploring the various possible governance paths, patterns and processes through 'if, then' scenarios. For example, if we observe a certain level of country performance on quality of government, we would then expect a certain level of quality of democracy (or quality of life). By comparing those expectations with our measurement of reality, we can detect discrepancies, if any, and then explore in greater depth how significant they are and what might lie behind them.

By allowing for (but not insisting upon) the existence of connections between these dimensions, we have opened up a potentially fruitful way of exploring the various possible governance paths, patterns and processes through 'if, then' scenarios.

The 25 sub-indices, grouped within the three dimensions, can then be exploited to explore more fully the myriad of patterns. By relating the disaggregated quality of government categories with the overall quality of life, we have found that some quality of government measures, e.g. control of corruption and impartiality, are in general more strongly associated with the quality of life performance than are others. Such patterns can also be traced for individual countries. For example, we have observed that Chile's generally strong quality of government performance does not translate into solid quality of life performance in all policy areas. Though the indicators do not provide the reasons for the discrepancy, it puts the spotlight on a potential problem that requires further exploration.

These measures of governance also allow users a variety of options to understand patterns within the world, parts of which have not been included in this report for reasons of space. Given the measures of uncertainty provided for all scores, we can also calculate probabilities for comparisons of countries, whether they be in terms of raw scores or rankings. This allows a more nuanced picture of issues of governance. In doing so, it is possible to distinguish between cases in which there is relative certainty that a given country is doing definitively worse (or better) than a reference country and those in which the uncertainty is greater.

The approach developed here can also be extended in fruitful directions in the future. Due to resource constraints, only a selection of countries is covered here. However, additional countries can be included in the three high-level indicators seamlessly, pending further data collection.

Overall, the framework and the data assembled to populate it offer a flexible, understandable analytical tool to identify real or potential strengths and weaknesses as a point of departure for either building on what works or diagnosing and adjusting what does not.

[10] See Part II, Chapter 4 for some comparisons.

Part Two: Framework, Country Profiles, Methods and Sources

1 THEORETICAL FRAMEWORK

The Berggruen Governance Index is based on a theoretical framework that suggests: 1) that governance regimes are based on a set of inputs—pre-existing conditions such as institutions or organizations—that shape the options for addressing a public task or problem; 2) that these conditions then enable the discharge of some set of obligations and objectives—throughput, commonly known as 'state capacity'; and 3) that these activities produce concrete outputs that in the end help account for the performance of a country's economy, polity, and society in terms of prosperity and quality of life.

This framework of depicting governance as a process follows David Easton's (1965) system theoretical model, which centers on questions as to how political systems manage to persist in a world of stability and change. Easton conceptualizes political life as comprised of dynamic relationships in which government functions as the intermediary in translating public demands (inputs) into specific actions (outputs). Easton's framework, however, fails to consider how this governmental transformation process takes place. As a result, debates about general concepts of governance have tended to revolve around either governments' input or output legitimacies (Scharpf 1999). The throughput dimension of governance, in contrast, remains largely understudied (Schmidt 2013).

A static view of governance bears the risk of causing what Robert Dahl (1994) has termed a "democratic dilemma". Governments that focus solely on inputs may be less effective in producing policy due to lengthy decision-making processes and diverse sets of public opinions (Bevir 2006). Similarly, by focusing primarily on generating output, governments can risk democratic deficits due to their citizens' inability to affect policymaking. Results from several studies suggest that the quality of government

elements in the throughput dimension have a strong impact on the capacity of governments to produce efficient outputs. Rothstein (2011), for instance, shows that quality of life largely depends on the impartiality of the governance process. Moreover, research by Van Ryzin (2011) shows that quality of government elements such as levels of corruption of civil servants are better than policy outcomes at predicting people's perceptions of the trustworthiness of civil servants.

With the Berggruen Governance Index we seek to move beyond the input–output dichotomy in order to shed light on what happens inside the "black box" of governance. We see good governance as a process that requires and produces legitimacy not only at the start or at the end, but throughout.

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Admittedly, such a basic description may be not only simplistic but also naïve. In reality, governance is an ongoing process and has neither clear starting points nor easily identifiable intermediate markers and end products. There are complex time sequences in the sense that beginnings and ends of governance processes are hard to identify and riddled with attribution problems. What is more, there are conceptual as well as methodological ambiguities and overlaps in allocating factors as inputs rather than, say, throughputs or outputs. Nevertheless, some analytical clarity is required to better understand the state of governance in the world today. In addition, we also include mid-level indices that disaggregate these higher-level concepts and can help to better elucidate the various aspects of governance and the challenges they pose.

While thinking of governance in this simple, stylized framework is not a revolutionary idea, one strength of this approach is that we are explicitly organizing the data collection and analysis around it. It has to be noted, in fact, that many governance indicators projects focus primarily on only one of the steps. For example, the "rule of law" index in the World Governance Indicators (WGI) aggregates what we would consider quality of government, such as judicial impartiality, and what we treat as quality of life, such as crime control. Similarly, the Ibrahim Index of African Governance (IIAG) "Sustainable Economic Opportunity" sub-index aggregates phenomena we would ascribe to quality of government, such as "red tape", with others we would categorize as quality of life, such as several measures of physical infrastructure provision.

While aggregation in these types of mid-range but encompassing indicators has value in terms of providing a snapshot of the situation in a specific policy area, it overlooks to some extent the possible disconnect between "rules and institutions" and the ability of the government to deliver. It also makes it hard to assess the extent to which the presence of formal institutions or the smooth working of the administration helps predict the quality of the outputs. In addition, this aggregation presents a challenge to discovering "functional substitutes", e.g. how a country might be able to achieve a good result such as low infant mortality in spite of lacking some specific institutions that are commonly considered prerequisites of good governance, or in spite of the fact that the country does not perform well in terms of quality of government.[11]

Though there may well be causal connections between the steps in the framework, we neither assume that a particular form of governance or set of conditions will necessarily lead to better outcomes, nor are we able to test for causality. Instead, we collect data for each of the steps separately in order to examine the many potential associations among them. The broad set of assembled indicators covers various aspects of governance, pointing both directly and indirectly to how they are put to use in governance and spanning a variety of policy areas. Each variable and indicator has a unique place and purpose within the framework and was selected for its significance for understanding the relationships among the steps. In this way, we are able to more closely examine the relationships between the three separate components and see whether they reveal meaningful relationships within the data.

Therefore, the approach taken here neither aims at nor seeks to prove any form of causality that might exist among any of the components covered. In fact, causality is notoriously difficult—some may say, impossible—to prove with the use of observational data. However, to simply dismiss information and indices of governance for this reason is misguided, as they form an important toolkit for understanding the world.[12] Therefore, our approach is best seen as part of the cumulative process of acquiring information and knowledge of governance issues.

[11] See Stanig (2014) for several examples of this type of phenomenon: countries that perform well in terms of outcomes in spite of the fact that they lack some alleged "prerequisite", and countries that perform poorly even though they have put all the "right" institutions in place.

[12] It is akin to saying that we could not examine relationships between unemployment, inflation and economic growth because these factors are not randomly assigned to countries.

Given the conceptual framework and methodological approach, we generated three high-level indices of governance. These capture the dimensions of governance previously highlighted: quality of democracy, quality of government, and quality of life. In doing so, we are able to offer a picture of where the 38 countries we cover stand in relation to these aspects of governance and how their standing has changed over time. Furthermore, we can seek to better understand these broad aspects of governance by examining the associations between these three high-level indices. As shown in Part One of this report, this allows us to see the extent to which these aspects are linked to one another, as well as identify cases of over- and underachievers, for instance, which countries are able to do well in terms of quality of life in spite of poor quality of democracy performance, and vice versa. We are also able to identify cases where countries do better than expected in these dimensions, when adjusting for economic prosperity in the form of GDP per capita.

We can also identify the factors that are most tightly linked to these high-level indices of governance. The chosen methodology derives the "weights" of included factors in a data-driven way, avoiding potential arbitrariness in ex ante weight selection that can affect other indices, such as the Human Development Index. Therefore, in Part One we showed which variables used in its creation are shown to be important determinants of the measures. This allows users to better understand the particular aspects of governance that the high-level indicators have captured and the areas in which policies might have the most positive impact.

Users can examine associations between different categories within one of the three dimensions of governance, as well as understand particular areas where a high or low performing country is doing comparatively worse or better than expected.

Within this setup, we are able to go one step further and calculate additional mid-level indices, or sub-indices, of governance. These mid-level indices are estimated using the natural grouping of variables within the three dimensions of governance: For example, health and crime are groupings within quality of life. This use of disaggregation results in a further 25 sub-indices, and allows for a more nuanced picture of the state of governance in these countries. Users can examine associations between different categories within one of the three dimensions of governance, as well as understand particular areas where a high or low performing country is doing comparatively worse or better than expected. In addition, the generation of such a wide array of indices also allows for the exploration of associations between one of the three dimensions of governance and the disaggregated indices included within another dimension. The combination of the highly aggregated and more disaggregated approaches offers fruitful avenues forward for users to better understand issues of governance in the world today.

For example, one is able to examine whether there are particular aspects of quality of government that are associated with success in the quality of life dimension. This may be of interest, as it could potentially identify certain key areas where greater focus would lead to improved performance in outputs for countries.

The combination of the highly aggregated and more disaggregated approaches offers fruitful avenues forward for users to better understand issues of governance in the world today.

As useful as a summary index might be, from a policy and conceptual perspective, this approach that provides several levels of indices offers many more insights and suggests more concrete recommendations than any single number could achieve by itself. In addition, by including measures of uncertainty with all estimates we further indicate areas where our knowledge is more reliable, an important point that cannot be represented by one number.

Finally, to study the evolution of governance over time we have collected data that covers a 14-year period. This allows us to explore changes in the countries' performance on the three dimensions over time, as depicted in **Figures 33–37** in Chapter 3. Exploration of such changes should enable us to further understand how good governance can translate into better outcomes for citizens within countries.

2 DIMENSIONS OF GOVERNANCE

For analytical purposes, we distinguish between three sets of factors, or dimensions of governance, that represent parts of the sequence that we seek to measure. In this chapter, we discuss the sub-indices that make up the dimensions of governance, as well as corresponding data sources. The Berggruen Governance Index comprises three dimensions: quality of democracy (QoD, or inputs), quality of government (QoG, or throughputs), and quality of life (QoL, or outputs). The quality of democracy dimension seeks to measure the institutional, political and cultural framework in which governance takes place. Quality of government includes measures of the quality of a given governance system in its operation. Quality of life measures the beneficial results that governance systems achieve.[13]

2.1 QUALITY OF DEMOCRACY

The Berggruen Governance Index's quality of democracy indicators assess the institutional, political, and cultural frameworks in which governance takes place. These are not direct measures of "good governance" but rather measures of potentially beneficial characteristics that might promote good governance. Thus, we try to capture some of the many different paths for governments to achieve legitimacy and public support for their actions. Within this notion of a high-level QoD index, we categorize data according to a variety of mid-level categories (or sub-indices), discussed here.

2.1.1 Political Engagement

The category of political engagement seeks to trace how individuals in the general population engage beyond voting. We used data from the WVS, ISSP, ESS, EVS, Asian Barometer, AfroBarometer, AsiaBarometer, Latinobarómetro, and Arab Barometer to estimate an index of political engagement through other avenues. This index covers behaviors such as attending campaign events, volunteering in campaigns, contacting representatives, signing petitions, and more. We also estimated income gradients in order to capture the extent to which high-income citizens are more or less likely to be politically engaged than their lower-income counterparts.

2.1.2 Feedback Mechanisms

Even in less democratic political systems, those who govern will rely to some extent on various types of feedback mechanisms, which in this analysis covers measures of freedom of expression and summaries of media ownership structure. Our measures of freedom of expression are based on expert surveys and other third-party indices—specifically, the score from the World Justice Project (WJP) regarding whether "freedom of opinion and expression is effectively guaranteed"—as well as freedom of the media according to Reporters Without Borders' World Press Freedom Index and measures of freedom of the press and internet access from the Institutional Profiles Database (IPD) expert survey. To measure media market fragmentation, which may signal the diversity of voices providing feedback, we relied on information provided by World Press Trends Database.[14]

[13] For precise information on the variables and associated data sources used, please consult the accompanying Code Book.

[14] We calculated several summaries of the media market for every country-year. First, we computed the effective number of dailies. This measure, derived from the Herfindahl–Hirschman index (Laakso and Taagepera 1979), reflects at the same time the number and market share of newspapers in a given country and year. Finally, we used country summaries of a Gallup item about perceived media independence and items from World Values Survey (WVS) about trust in the media.

2.1.3 Government Transparency

Government transparency refers to the extent to which citizens are able to access information about governance-related matters and thus potentially able to keep policymakers on their toes. We used data from three sources to examine government transparency. First, we used data from the IPD that measures transparency in economic policy and in procurement. Second, we used data from the University of Gothenburg's Quality of Government Institute expert survey that measures the extent to which government employees are sanctioned for giving the media information about government practices, the extent to which abuses of power in the public sector are likely to be exposed in the media, and the extent to which government documents and records are public. Lastly, we used data on whistleblower protection from the Anti-Corruption Authorities (ACAs).

2.1.4 Culture

Certain aspects of culture may also be related to governance. We use principal component analysis and data related to roles of men/women in the society, justification of certain behavior, personal qualities and values from WVS to identify four dimensions, which were assigned the following interpretations: diversity/tolerance, individualism vs. collectivism, importance of self-expression, and acceptance of economic incentives. In the estimation, only the first of these, i.e. diversity/tolerance, was used. Higher scores reflect a society that is trusting and tolerant towards others and believes in fairness and equality.

2.1.5 Civil Society

Broadly speaking, civil society can be measured as the opportunities for citizens to be involved in organizations that can further citizen interests. Using data from the Union of International Associations' (UIA) Yearbook of International Organizations, we recorded the number of international non- governmental organisations within each country.[15] The higher the number, the higher the score.

2.2 QUALITY OF GOVERNMENT

If the Berggruen Governance Index's quality of democracy indicators assess the frameworks in which governance takes place and the inputs into the process, then the quality of government indicators try to address the "how" of good governance. For example, does the government operate impartially? Or is corruption widespread? These considerations represent measures of bureaucratic capacity, bureaucratic autonomy, and decision-making capacity when the governance system is observed in action. Like the quality of democracy index, the quality of government index is also comprised of multiple mid-level categories, discussed here.

2.2.1 Bureaucratic Recruitment

Bureaucratic recruitment addresses the quality of hiring practices of bureaucracies and whether such practices are geared toward recruiting and retaining the most qualified candidates. From the University of Gothenburg's Quality of Government Institute's expert survey, we used variables that consider aspects such as formal examination systems in public sector hiring, whether skills and merits determine successful job applications, and whether bureaucrats' salaries are linked to performance appraisals and are comparable to private sector salaries. Data from Global Integrity Reports capture whether there mobility between the public and private sectors is regulated. From the IPD expert survey, we used information on whether networks play a role in the selection of senior officials, as well as the practice of guaranteed public sector hiring of graduates.

2.2.2 Tax Collection Capacity

The category of tax collection capacity seeks to measure how well tax administrations function in their ability to collect tax revenue. We used data from the IPD expert survey that measures the efficacy of the tax administration in a given country: specifically, the efficacy of corporate, income, and national taxation. We also included a measure that captures the practical ability of administrations to limit tax evasion.

2.2.3 Corruption

Assuming that a lack of corruption will free a government apparatus to do its job, we trace the existence as well as the perception of corrupt practices within countries. Data from the IPD expert survey measures a variety of corrupt practices, including petty corruption, political corruption, corruption between administrations and local businesses, and corruption between administrations and foreign businesses. From the University of Gothenburg expert survey, we measured whether there is corruption in terms of public procurement and whether public sector employees are properly reprimanded when guilty of misconduct. We also used information from enterprise surveys and public opinion surveys that had asked respondents whether they had ever had to pay bribes, as well as citizen perceptions of corruption in business and government from Gallup data.

2.2.4 Impartiality

To what extent are citizens as well as businesses treated equally by their country's institutions and public officials? From the IPD data, we used information on equal treatment by the state in terms of access to schools, healthcare, administrative procedures, and public employment. In addition, we included information on barriers to entry for market participation in terms of administrative procedures. From the University of Gothenburg Quality of Government

[15] These numbers were then transformed by dividing by each country's (logarithmized) population, which takes into account the likelihood that countries with larger populations will have more organizations.

Institute data, we used information on whether public sector employees act impartially when implementing policies in individual cases, and we included information from the WVS on citizen perceptions of police interference in their private lives. We also included data from the International Social Survey Programme (ISSP), which addresses perceptions of impartiality of public administration and their income gradients.

2.2.5 Business Regulation

Business regulation addresses the formal requirements for operating businesses within a country, as well as the legislation that requires transparency on the part of businesses. Using data from the World Bank's Doing Business, we included information on the number of permits or documents required for starting a business, acquiring electricity, registering property, and trading across borders (both importing and exporting), as well as the number of days needed to start a business and to obtain a permanent electricity connection. We also included an additional three indices from Doing Business that consider the ease of shareholder suits, the extent of director liability, and the extent of disclosure. Finally, we use a statistic from the World Competitiveness Yearbook to measure how much bureaucracy hinders general business activities. Higher scores indicate that business regulation, also referred to as the regulatory burden, is less of a hindrance to private economic activity.

2.2.6 Politicized Bureaucracy

Political influences that may affect the operation of the bureaucracy and the public sector were measured with data from the University of Gothenburg expert survey. More specifically, we captured the influence of politicians and political connections in hiring and firing practices within the bureaucracy in general, and whether public employees seek to fulfil the ideologies of those in government. We also included from the same survey a measure of whether networks lead to an employee's increased likelihood of general recruitment and promotion.

2.2.7 Procedural Efficiency

Procedural efficiency is how well a country's bureaucracy performs important economic tasks such as data collection and regulation. IPD data indicating the reliability of official economic information—for example, the state budget, state accounts, and official financial statistics—was complemented by information from the same source on the efficiency of competition regulation in the private sector and the efficiency of banking, insurance, and financial supervisory authorities. Data from the Quality of Government expert survey provided measures of whether public sector employees seek to be efficient, help citizens, and follow the rules, while a measure of statistical capacity from the World Bank was also incorporated. Finally, statistics from the World Competitiveness Yearbook were used to measure how independent and consistent government policy is, how effectively it is implemented and how responsive it is to sudden changes in the economic environment.

2.2.8 Judicial Impartiality

Judicial impartiality means that citizens are treated equally in the course of judicial procedures and that the justice system is free from aspects that could prevent this from being the case. Using data from the World Justice Project (WJP), we measured the extent to which civil justice is free from discrimination and corruption, as well as the extent to which the criminal system is free from corruption and improper influence, is impartial, and is characterized by due process. In addition, data from IPD allowed us to gauge whether there is judicial independence and whether citizens are treated equally under the law. Measures with regard to impartiality in commercial disputes between the state, between national stakeholders, and between nationals and foreigners were also included from the IPD.

2.2.9 Analytical Capacity

Analytical capacity refers to the extent to which a bureaucracy has the capacity to identify problems and to find solutions to previously identified problems. To measure this capacity, we used data from the IPD expert survey that addresses concepts such as the capacity to adapt policies to changing social and economic contexts, whether policy evaluation is common practice, whether authorities act in line with long-term strategic visions, and whether public authorities have defined such visions in different policy areas.

2.2.10 Coordination Capacity

Coordination capacity is a government's ability to enact policies in a coordinated manner—that is, coherently within as well as across the various branches of government. With data from the IPD expert survey, we cover topics such as the extent of coordination and collaboration between ministries and administrations, the overall coherence of public policies, and whether internal divisions hamper state capacity.

2.3 QUALITY OF LIFE

If the QoD indicators address the "where" and the "why" of good governance (or, the frameworks within which it takes place and the signals received from the populace) and the QoG indicators address the "how", then the Berggruen Governance Index's quality of life indicators address the "what" of good governance. In other words, what beneficial results is a system of governance able to achieve? Here we seek to measure the extent to which those who govern have been able to manage complex public tasks or solve concrete public problems, whether through direct delivery, regulation, or other means. As above, various mid-level categories fall under this QoL dimension.

2.3.1 Price Control in Natural Monopolies

We used data on energy, telephone and medicine prices to indicate the extent to which goods and services in natural monopoly sectors may be overpriced. This data—drawn from Eurostat, the World Health Organization (WHO), and national sources—was then adjusted by the natural logarithm of GDP per capita for comparability across countries. The higher the score, the better the governance system has been able to control prices.

2.3.2 Shadow Economy

The size of the shadow economy as a share of GDP indicates the ability of the government to prevent economic activity from escaping the government's reach (Schneider, Buehn, and Montenegro 2010; Schneider 2013). Our measure of such is based on econometric estimates by Schneider, Buehn, and Montenegro (2010) and Schneider (2013). The smaller the size of the shadow economy, the higher the score on this sub-index.

2.3.3 Environment

Seeking to measure the extent to which the natural environment is protected or degraded within countries, we considered objective information in the form of forest loss, overfishing, particulate matter, and CO2 emissions from the Environmental Performance Index (EPI) and drew from Gallup data on perceptions of environmental quality when it comes to air and water.

2.3.4 Inflation

The inflation level—here, drawn from data from the World Bank's World Development Indicators (WDI)— indicates by proxy the ability of a government, through economic institutions such as central banks, to effectively manage macroeconomic conditions. A poorly managed monetary policy may indicate that the central bank is subjugated to political will or that it has little capacity in general. A lack of capacity may affect the quality and the soundness of monetary policy, as well as the quality of oversight of economic activity in general.

2.3.5 Business Procedures

Ideally, when regulations are fitting and coordination among public administration units is working, businesses should be able to operate without undue burden. While the quality of government category of business regulation (see 3.2.5) measures the extent of regulations in a country, the business procedures output category seeks to measure the extent to which businesses are able to operate effectively, given their institutional environment. Enterprise Surveys provided us with data on the average amount of time that it takes to deal with regulations, as well as perceptions as to whether permit and customs procedures are obstacles to doing business. We also included data from IPD expert surveys on the ease of starting businesses under local laws, as well as setting up subsidiaries of foreign firms.

2.3.6 Education

In order to focus on the quality of education within countries, we drew from IPD data on the quality of various levels of education: primary and secondary education in urban areas, primary and secondary education in rural areas, and tertiary education in general. We also included IPD data on the territorial coverage of public schools and PISA data on educational achievements in math, reading, and science.[16]

2.3.7 Public Health

Public health considers the access to and quality of healthcare, including basic healthcare and preventive medicine, and health outcomes. Information on access to drinking water and sanitation is drawn from EPI, whereas estimates of the density of various types of health centres and hospitals come from the Global Health Observatory Data Repository. From the IPD we include data on the territorial coverage of basic healthcare services and drinking water as well as on the quality of basic healthcare. Gallup surveys provide another perspective on the quality of healthcare.

2.3.8 Crime

The control of crime within a country and citizens' perceptions of crime are the focus here. Eurostat provided data on burglary, homicide, robbery, and violent crime rates, as well as the total level of crime in countries, all of which we scaled by population. Data from the World Justice Project (WJP) provided measures as to whether countries' criminal investigation, adjudication, and correctional systems are effective. In addition, we included information from Enterprise Surveys on the costs of crime faced by businesses, in terms of security as well as theft and vandalism. Finally, we took into account survey data from the World Values Survey (WVS) and Gallup on perceptions and experiences of crime and safety, in addition to data from the IPD expert survey on the security of goods and persons, and whether countries ensure security throughout their territories.

[16] PISA scores were derived from countries' overall educational attainments and the amount of variation or inequality in the attainments.

2.3.9 Civil Justice

Civil justice as a category refers to the efficacy of justice—more specifically, its enforcement within a country in relation to individuals as well as businesses. In contrast to judicial impartiality (a quality of government category discussed in section 3.2.8), we focus here on the outcomes and efficiency of the process, rather than whether there is interference with the process itself. Using data from the WJP, we incorporated aspects of civil justice such as whether there are unreasonable delays, whether justice is effectively enforced, and whether citizens are able to access and afford justice. We also included measures of justice from Doing Business with regard to the enforcement of contracts in terms of costs as a percentage of claims.

Finally, data from IPD covered the timeliness of judicial decisions in general and commercial matters, the efficiency of legal means to protect property rights, and the efficiency of insolvency legislation and restructuring processes in the event of insolvency.

2.3.10 Other Public Services

Last but not least, other public services encompass infrastructure that has not already been covered in the previous categories. To depict governments' influences upon such services, we used data from Gallup and IPD regarding the perceptions and quality of various forms of infrastructure, including public transportation, roads and highways, and coverage of the electricity grid. We also included measures of internet access using statistics from the ITU.

3 COUNTRY PROFILES

The data collected for the Berggruen Governance Index spans across 38 countries and over a period of fourteen years. This allows us to uncover how patterns of governance change over time both within and between countries, adding extra leverage to tackling questions of interest.

Figures 33 to 37 show how countries' performance overall and on the three high-level dimensions have changed over time. For most countries, the scores did not change dramatically between 2004 and 2018. Nevertheless, we can observe a difference of some 20 points between the highest and lowest scores for many emerging economies ranging from Brazil and Colombia to Ghana and South Africa to the Philippines and Vietnam, all, however, ending with scores in 2018 close to those of 2004.

DATA COLLECTED

38 countries

14 years (2004-2018)

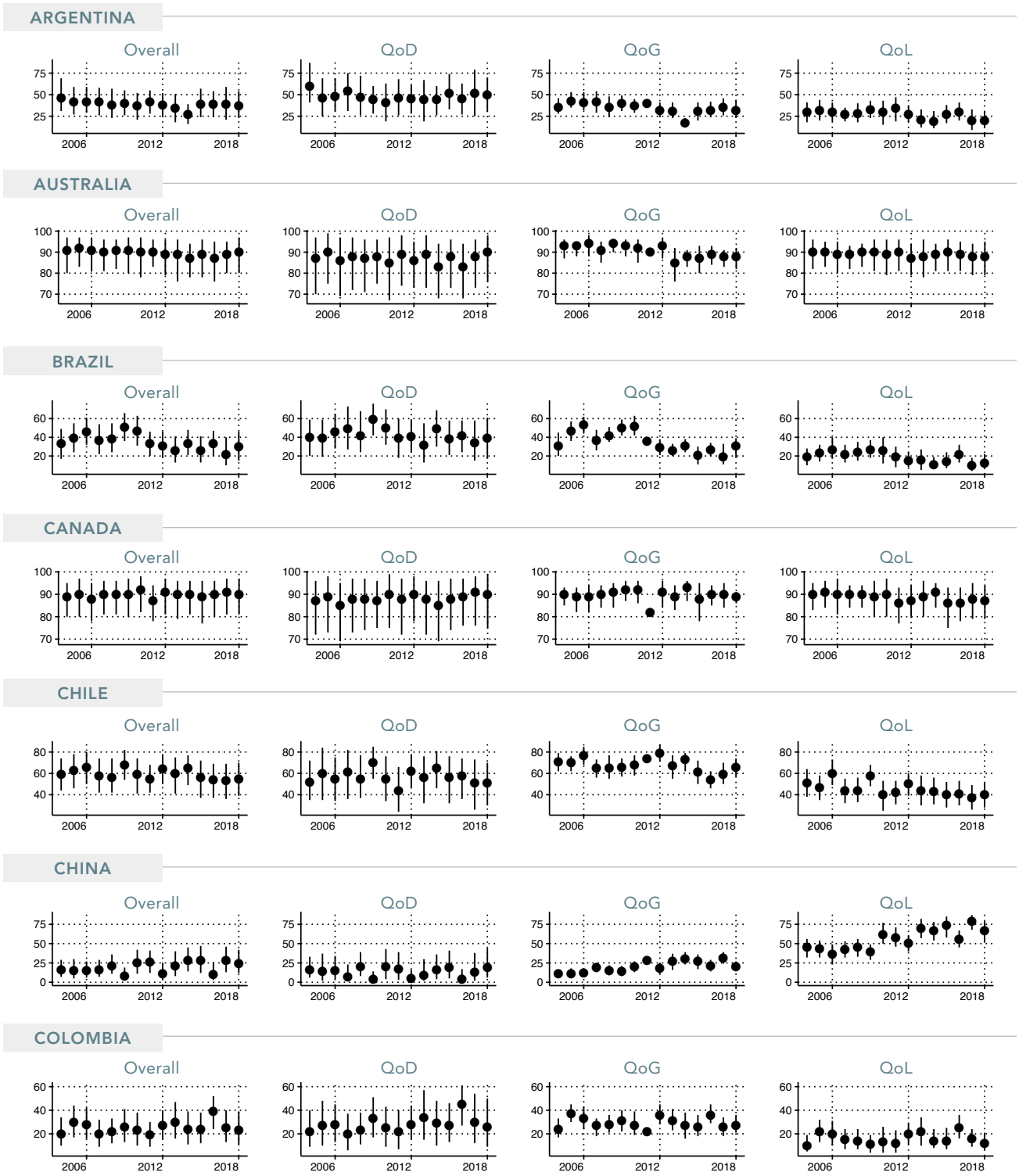

FIGURE 33

Countries' scores on each dimension from 2004 to 2018 (Argentina to Colombia).

Note: Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

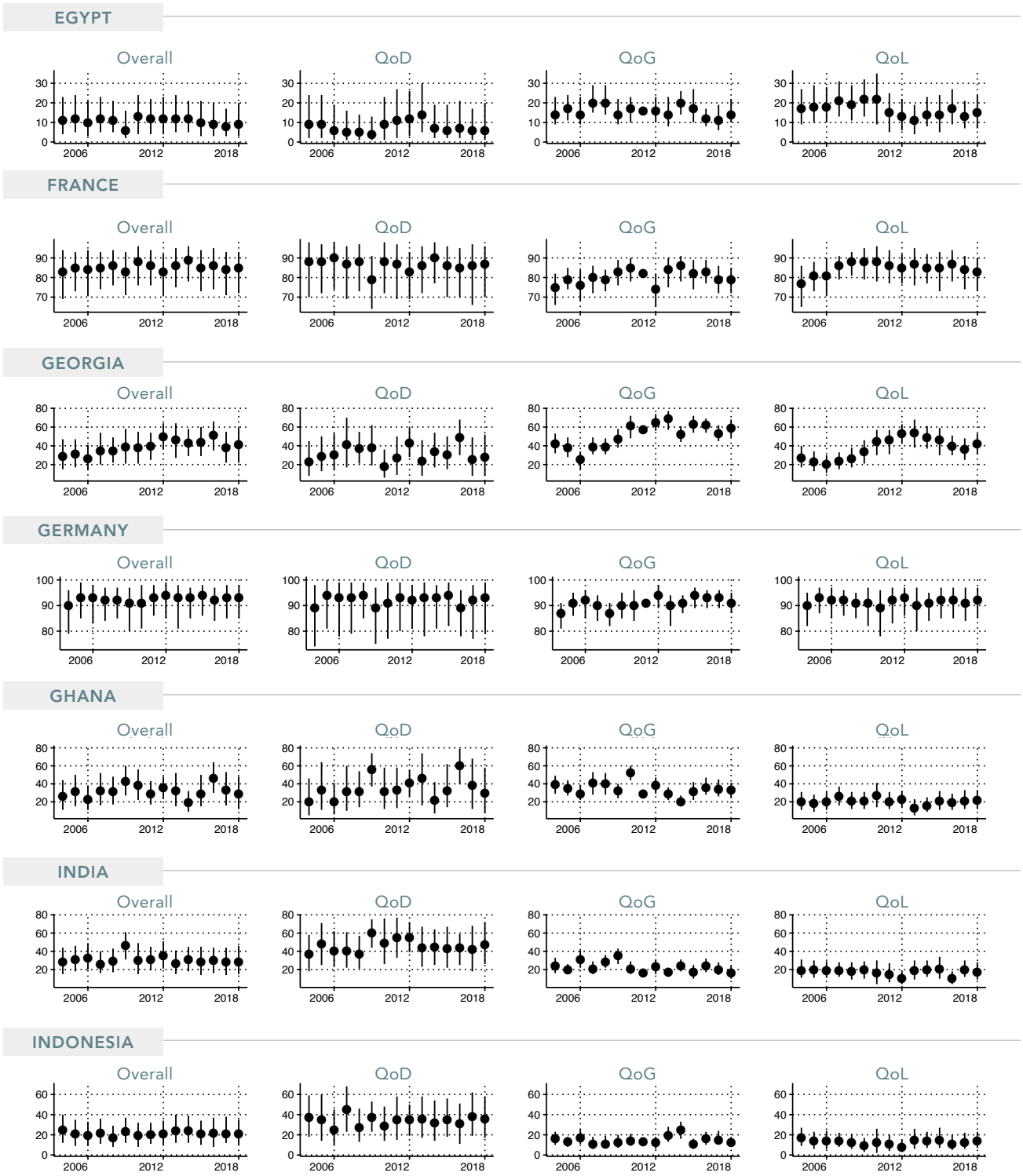

FIGURE 34

Countries' scores on each dimension from 2004 to 2018 (Egypt to Indonesia).

Note: Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

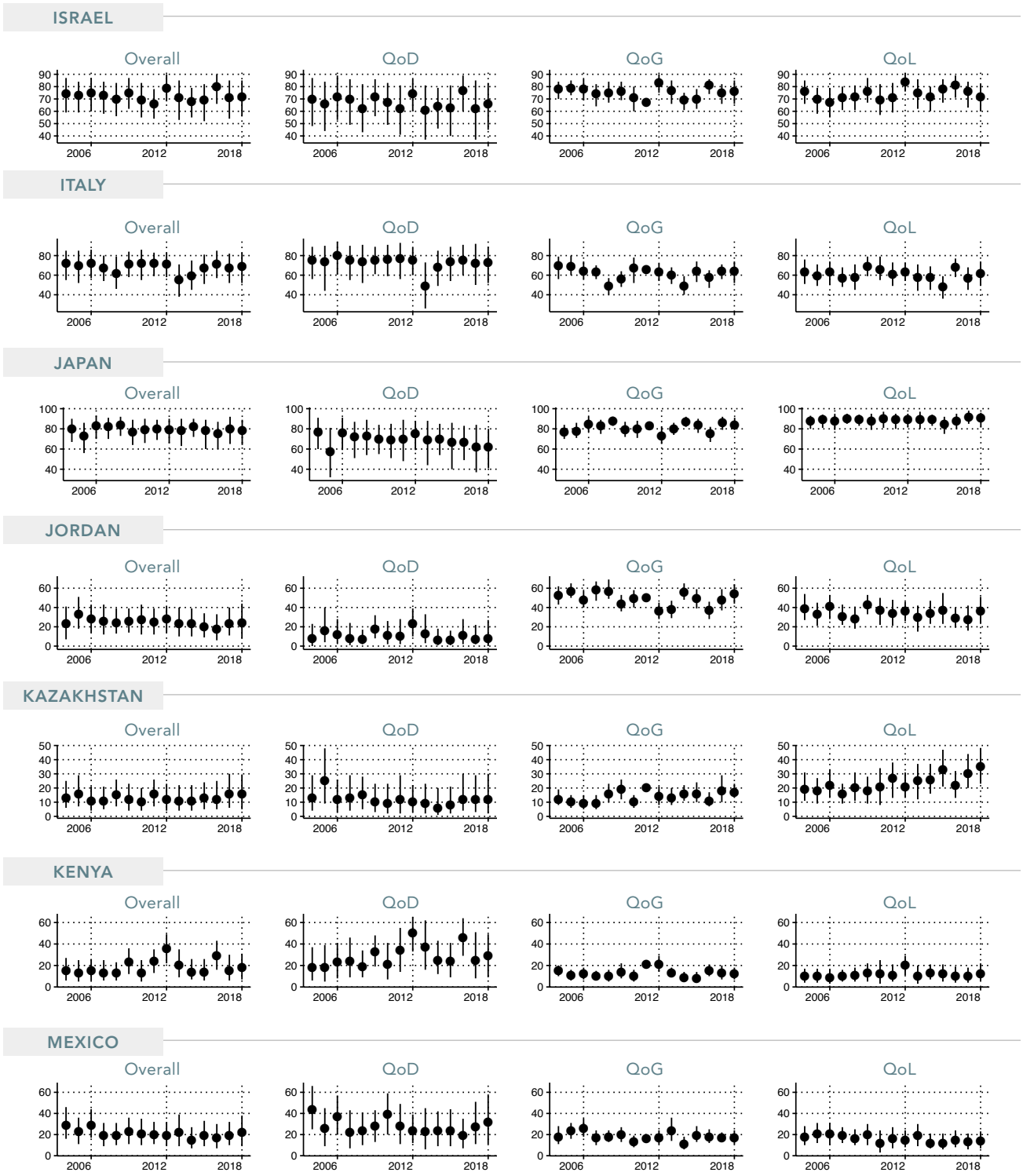

FIGURE 35

Countries' scores on each dimension from 2004 to 2018 (Israel to Mexico).

Note: Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

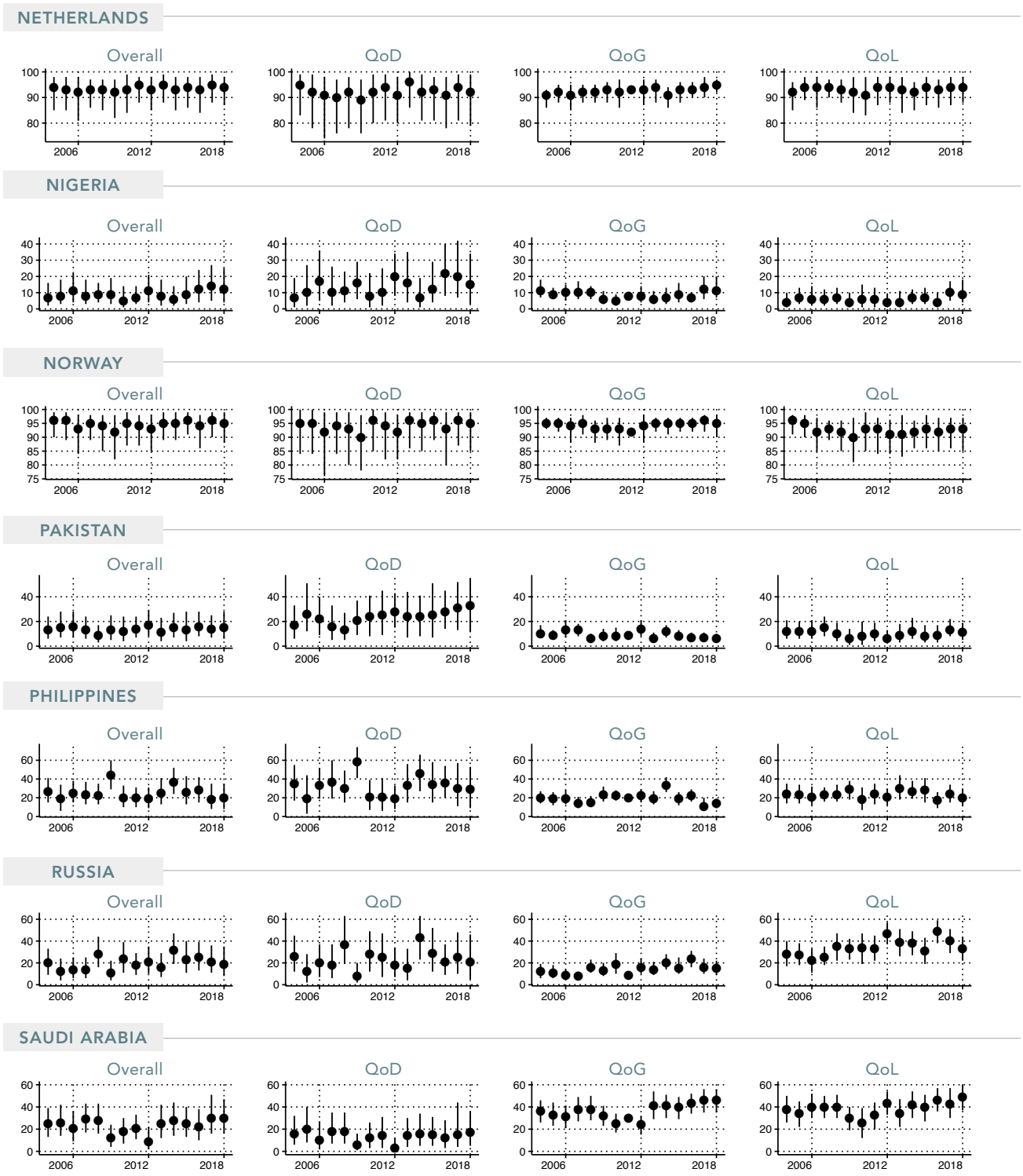

FIGURE 36

Countries' scores on each dimension from 2004 to 2018 (Netherlands to Saudi Arabia).

Note: Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

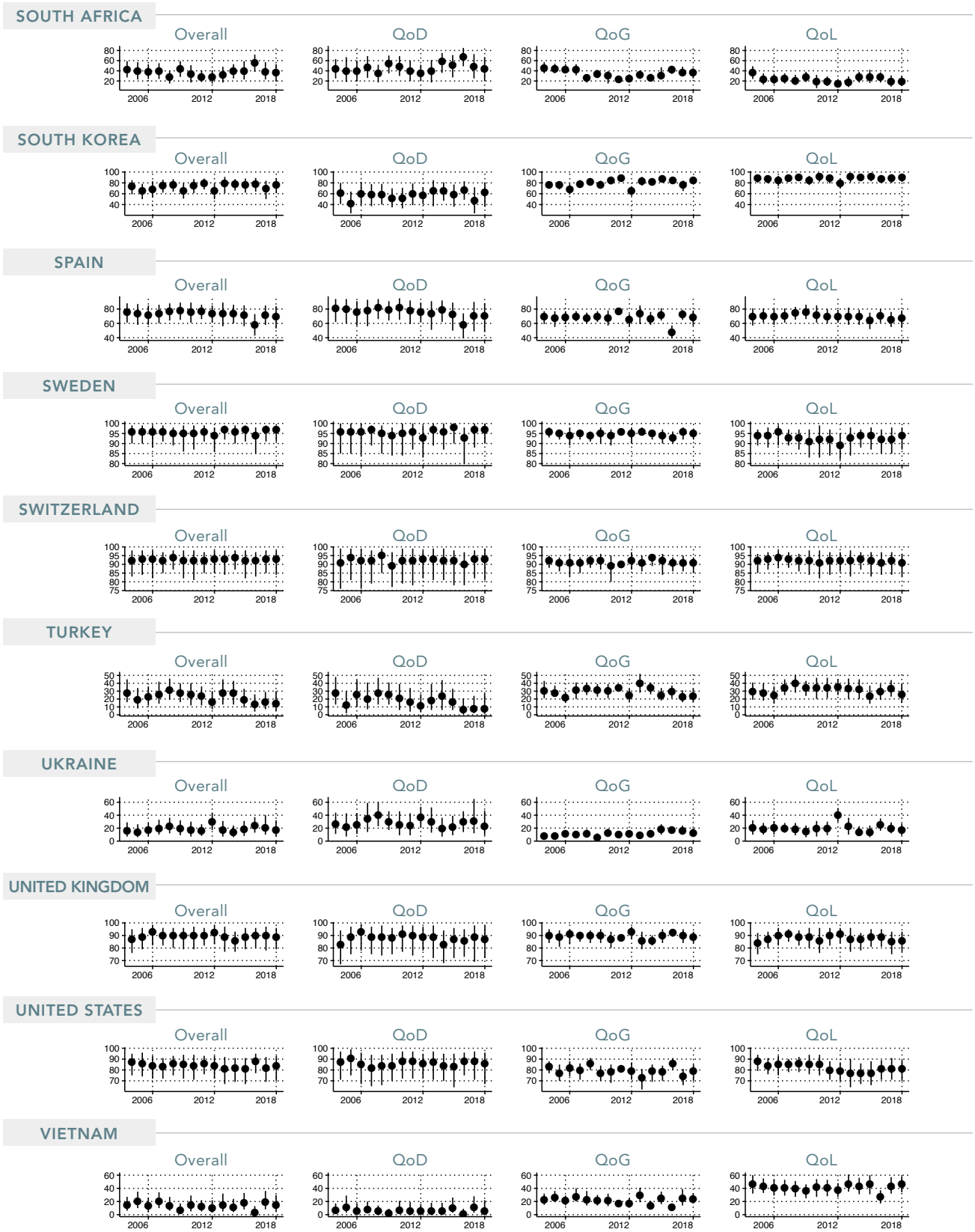

FIGURE 37

Countries' scores on each dimension from 2004 to 2018 (South Africa to Vietnam).

Note: Lines indicate 95% credible intervals for the average score, a measure of uncertainty for a given country's score.

Below we provide brief summaries of each country's performance as calculated by the 2019 Berggruen Governance Index.

ARGENTINA: Argentina performs at the median on QoD, below average in terms of QoG, and well below average in terms of QoL. In relation to its GDP, Argentina is an underachiever, especially with regard to QoG and QoL. Although the country has near average scores for mid-level input indicators such as civil society and environment and an above average score for feedback mechanisms, Argentina scores amongst the lowest for throughputs such as bureaucratic recruitment and for outputs such as crime control and education.

AUSTRALIA: Australia achieves very good performances for its QoD, QoG and QoL, always positioned among the top 8 countries in the sample. In terms of GDP, it overachieves in terms of all 3 high-level indices. Almost all its QoG-related sub-index scores are above 90. Potential challenges for Australia are indicated by the QoL sub-indices of business procedures and other public services, which, though lower than the country's other sub-index scores, are nevertheless above the 38-country average.

BRAZIL: Brazil ranks below the median for QoD and QoG, and falters substantially in its QoL performance, which is in 2018 some 10 points lower than it was in 2004. In relation to its GDP, Brazil is an extreme underachiever in terms of QoL, as reflected in weak scores on education and crime control, in particular. Among the QoG mid-level indices, Brazil's score on (non)politicized bureaucracy and bureaucratic recruitment are above average, as is its score for democratic feedback mechanisms.

CANADA: Canada is a strong overall performer, with top-10 scores for its performance on QoD, QoG and QoL. In relation to its GDP, Canada is an overachiever on all three indices, but especially on QoD, for which its scores on all sub-indices are higher than 80 points. Although Canada's performance is above the 38-country average on all sub-indices, its scores for several, including other public services, is somewhat weaker.

CHILE: Chile's performance ranks it at the average for QoD, above for QoG and somewhat below for QoL. In relation to its GDP, Chile achieves more than might be expected on QoG, but less than might be expected on QoL. These rankings are, however, marked by extremes within all three dimensions at the level of corresponding sub-indices. Within QoD for example, Chile's scores are well above average for feedback mechanisms, but below average for other QoD sub- indices. Similarly within QoL, the country's above average performance for business procedures, control of the shadow economy and public health has its counterpart in below average scores for education and control of crime.

CHINA: While China ranks among the bottom 12 for its QoD and QoG performances, remaining there even in relation to its GDP, it fares better in terms of QoL, where it rises to the middle third of countries and is a high overachiever in relation to its GDP. Ranking at the bottom for feedback mechanisms, China also experiences challenges pertaining to general and judicial impartiality and politicized bureaucracy. On the other hand, the country attains above average scores for crime control, education, other public services, and control of the shadow economy.

COLOMBIA: While Colombia performs below the average for QoD and QoG, its QoL score lies well below average. On all three high-level indices, Colombia scores lower

than might be expected in relation to its GDP. While the country performs above average in the QoG sub-indices analytical capacity and coordination, it is hampered by particularly low scores on crime rates, education and bureaucratic recruitment.

EGYPT: Egypt performs in the bottom 10 on the QoD, QoG and QoL indices, though in relation to its GDP, it achieves what might be expected in relation to its GDP on QoG and QoL. More specifically, it ranks near the bottom on sub-indices such as analytical capacity, civil justice, coordination, environment, feedback mechanisms and impartiality of public officials. The country achieves a somewhat higher score on public health.

FRANCE: France appears in the top 12 for QoD, QoG and QoL, achieving more than might be expected given its GDP, in terms of both QoD and QoL. Particularly strong performance is found in sub-indices such as civil society, impartiality, procedural efficiency and other (infrastructural) public services. Nonetheless, a score closer to the average for analytical capacity might indicate challenges.

GEORGIA: Georgia ranks below average for QoD, slightly above for QoG, but just below for QoL; significantly overachieving on QoG and QoL in relation to the country's GDP. Behind these performances are wide variations within each dimension. In QoG, for example, whereas Georgia's score on the politicized bureaucracy sub-index is among the lowest (meaning that the bureaucracy is highly politicized), its scores on most other sub-indices within this dimension are near the average. Similarly in the QoL dimension, average performances on most sub-indices are counterbalanced by a weak score on education. It is worth mentioning that Georgia's QoG and QoL scores showed a strong increase between 2004 and 2012/13, and although they have since declined somewhat, the scores remain higher.

GERMANY: Germany is in the top five for its QoD, QoG and QoL performances and overachieves on all three indices in relation to its GDP. The country ranks near the top of the sample for civil justice, impartiality, analytical capacity, coordination and control of corruption, among other mid-level indicators.

GHANA: Ghana exhibits a below average performance on all three governance dimensions, QoD, QoG and QoL, but, when level of economic development is taken into account, achieves more than might be expected, especially on QoG. It ranks well above the 38-country average for feedback mechanisms and just above or near the median on impartiality. Judicial impartiality, civil justice and (non) politicized bureaucracy. Ghana's scores on all other sub-indices are below or well below average, with particular concern for corruption control and coordination within the QoG dimension and public health, environment and other public services in the QoL dimension.

INDIA: Despite a median QoD performance, India ranks among the bottom ten countries for QoG and QoL. In relation to its GDP, the country significantly overachieves in terms of QoD, but performs only slightly better on QoG and QoL than might be expected given its level of economic development. Its scores for business procedures, environment, and public health are particularly weak. However, India's scores are above average in (lack of) politicized bureaucracy and bureaucratic recruitment.

INDONESIA: Performing slightly below average for QoD, Indonesia's QoG and QoL performances are far below the 38-country average. When performance is considered in relation to GDP, the country underachieves on QoG and QoL, but not on QoD. In particular, the country faces serious challenges pertaining to tax collection capacity, analytical capacity and judicial impartiality among the QoG sub-indices and to education and public health among the QoL sub- indices. On a positive note, the country is a relatively strong performer in terms of environment and control of the shadow economy.

ISRAEL: Israel is a top-13 performer in terms of QoD, QoL and QoG, performing at about the level expected in relation to its GDP on QoG, but below expectations on QoD and QoL. In terms of mid-level indicators, the country scores well above average for analytical capacity, general impartiality, judicial impartiality and public health. Scores on other mid-level indices fall at or above the mean, except for environment, the score for which is below average.

ITALY: Italy scores above the average on all three dimensions, though in relation to its GDP it underachieves on QoG and QoL. Strong scores for general and judicial impartiality in the QoG dimension are counterbalanced by below average scores for analytical and tax collection capacity, procedural efficiency, corruption, bureaucratic recruitment and politicized bureaucracy. Similarly, above average scores on QoL sub-indices education, environment and public health coexist with a far below average score on other public services such as infrastructure.

JAPAN: A fairly good performer overall, Japan lies within the top-15 of countries for QoD and ranks among the top-10 for QoG and QoL. In relation to its GDP, it is an underachiever on the QoD dimension, but an overachiever on QoG and QoL. Japan's most notable achievements are

found in the education, crime control, environment and other public services QoL sub-indices as well as in the (lack of) politicized bureaucracy, tax collection and procedural efficiency QoG sub-indices. In general, the country performs above or well above average for all mid-level indicators.

JORDAN: Jordan lies in the bottom-10 for its QoD performance but ranks closer to the median in QoG and QoL. While it remains an underachiever on QoD in terms of its GDP, the country is a high overachiever on QoG and an overachiever on QoL. The country scores significantly below average for analytical capacity, civil society, political engagement, environmental protection, tax collection capacity, and education. However, Jordan performs above average level in other areas: control of crime and the shadow economy, as well as public health.

KAZAKHSTAN: Kazakhstan's QoD and QoG scores are among the lowest 5, and its QoL score, though better, remains below average. On all three dimensions, Kazakhstan is underachieving in relation to its GDP. The country's strengths are analytical capacity, crime control and public health, for which it achieves near or above average scores. Yet, its scores on the remaining sub-indices are by and large significantly below average.

KENYA: Kenya ranks among the bottom-5 countries in the QoG and QoL indices, but its QoD score brings it to bottom of the middle third. In relation to its GDP, the country overachieves on all three indices, especially QoD. Reflecting this, its scores on the political engagement sub-index in the QoD dimension is above average, while its scores on analytical capacity is above average. Kenya's particular challenges include civil justice, corruption, crime control, public health and other public services.

MEXICO: Mexico's scores bring it below average on the QoD and QoG indices and significantly below average on the QoL index. In light of its GDP, Mexico is significantly underachieving on all three dimensions, especially QoG and QoL. Examining mid-level indicators, Mexico experiences serious challenges regarding crime control, analytical capacity, coordination, politicized bureaucracy and tax collection, among other sub-indices measured. However, the country performs near or above the average on business procedures, inflation control and public health.

NETHERLANDS: The Netherlands shows very high performances across all main indices, being the among the top 5 performers in terms of QoD and QoG and the number 2 performer in 2018 for QoL. Indeed, the country is an overachiever on all three dimensions in relation to its GDP. The country ranks at or close to the top for civil justice, control of corruption, general and judicial impartiality, analytical capacity and other (infrastructural) public services.

NIGERIA: Being the worst performer in the sample on the QoL index and second worst on the QoG index, Nigeria is also in the bottom eight in QoD. In relation to its GDP, Nigeria is achieving no more than expected. The country's challenges are evident in well below average scores on QoG sub-indices such as analytical capacity, coordination, control of corruption, impartiality and tax collection capacity and in similarly low scores on QoL sub-indices such as crime control and public health.

NORWAY: Norway performs exceptionally well on all three indices, ranking in the top three on all. In relation to its GDP, Norway performs as expected on QoL and slightly better than expected on QoD and QoG. Particularly notable are high scores on general and judicial impartiality, procedural efficiency and analytical capacity.

PAKISTAN: Pakistan lies in the middle third of countries on QoD, but at the bottom of the ranking on QoG and second from bottom on QoL. In relation to its GDP, it achieves notably more than would be expected on QoD, as expected on QoG and slightly above expectations on QoL. The country experiences a wide range of challenges on almost all of the mid-level indicators, particularly civil justice, control of corruption, crime control, environment, public health and other (infrastructural) public services, not to mention procedural efficiency and tax collection.

PHILIPPINES: The Philippines performs below the mean on the QoD index and well below on QoG and QoL. In relation to its GDP, the country achieves scores slightly above expectations on QoD, somewhat less than expected on QoG, and as expected on QoL. On most mid-level indicators, the country scores significantly below average, especially on civil justice, crime control, control of the shadow economy and analytical capacity. However, environmental protection, bureaucratic recruitment, (lack of) politicized bureaucracy, and procedural efficiency scores are near or slightly above average.

RUSSIA: Given its low rankings on the QoD and QoG indices, Russia's QoL performance is comparatively high, though still falling below the median. In terms of its GDP, Russia significantly underachieves on all three dimensions. The country's highest achievement is its performances in education, but it faces continued challenges in terms of environment, other public services, judicial impartiality, feedback mechanisms and shadow economy control.

SAUDI ARABIA: Saudi Arabia is situated near the bottom of the QoD index and at the average in terms of QoG and QoL. The latter two scores are based on average or somewhat above average scores for control of crime and the shadow economy, other public services and public health, as the mid-level indicators show. In relation to its GDP, Saudi Arabia achieves far less on all three high-level dimensions than might be expected.

SOUTH AFRICA: South Africa ranks at the median on the QoD and below the median on the QoG index, while faring far worse on QoL. In relation to its GDP, the country overachieves on QoD, but underachieves on QoG and QoL, the latter by far. The mid-level indicators reveal that, although South Africa scores at or above average for feedback mechanisms, analytical capacity, judicial impartiality, civil justice and tax collection capacity, its most serious challenges in terms of QoG include bureaucratic recruitment, procedural efficiency, impartiality and corruption and in terms of QoL include crime, education and public health.

SOUTH KOREA: While South Korea performs just above the average for QoD, it is in the top- 9 of countries with regard to both its QoG and QoL scores. In terms of its GDP, this means that it underachieves slightly on QoD, but overachieves on QoG and QoL. Its strongest scores are registered for civil justice, crime control, other public services and education. Challenges might be indicated by somewhat lower – but still above average – scores for corruption control and feedback mechanisms.

SPAIN: On all three of the main indices, Spain performs above the average, but as might be expected in relation to its GDP. In particular, the country maintains a well above average score pertaining to civil society, as well as public health and other public services. However, a below average score on analytical capacity and average scores on corruption control, impartiality, tax collection and a politicized bureaucracy are some areas of concern for Spain.

SWEDEN: Sweden's scores place it at the top of the 38-country sample on all three high- level indices. Furthermore, the country is an overachiever on all three dimensions relative to its GDP. None of Sweden's scores fall below the mean.

SWITZERLAND: Switzerland scores among the top five in all three main indices. In relation to its GDP, the country performs just as expected, though achieving slightly more on QoD. All its scores are above or well above average. Particular strengths include coordination, impartiality and corruption control among the QoG sub-indices and education, environment, other public services and crime control among the QoL indices.

TURKEY: Turkey is ranked among the bottom 5 countries for its QoD performance and well below average on QoG and QoL indices. It is a significant underachiever on all three dimensions when its GDP is taken into consideration. Though the country's score for public health is above the median, its performance on the environment and inflation is well below, as is its performance on feedback mechanisms judicial and general impartiality.

UKRAINE: With a below average performance on QoD and QoL, Ukraine ranks in the bottom five on the QoG index. In relation to GDP, the country performs just about as expected on all three dimensions. In terms of sub-indices, Ukraine's scores are above average on civil justice and public health. Yet, its scores are well below average on nearly all QoG sub-indices, especially analytical capacity, coordination and procedural efficiency.

UNITED KINGDOM: The United Kingdom ranks among the top ten countries on all three high-level indices. Furthermore, the UK achieves more on all three dimensions than might be expected in light of its GDP. The country exhibits excellence especially in analytical capacity (holding the highest score among the 38 countries), civil society, and coordination.

UNITED STATES: The United States ranks in the top-12 of countries on the QoD, QoG and QoL indices. In relation to its GDP, the country performs just above expectations on QoD, but just below on QoG and QoL. Among the QoG sub-indices, above average scores on procedural efficiency and bureaucratic recruitment are offset somewhat by an average score on coordination and a below average score on analytical capacity.

VIETNAM: Although Vietnam ranks second to last on the QoD index and performs well below average on the QoG index, it ranks within the middle third in terms of QoL. In relation to its GDP, Vietnam is an underachiever in QoD, achieves more than expected in QoG, and is a high overachiever on QoL. Within the QoD dimension, the country's score on feedback mechanisms is among the lowest of all countries included in the study. As for QoG, the only sub-index that reaches a score above 30 is analytical capacity. Vietnam performs above average on crime control, education and control of the shadow economy, but its performance on public health falls well below.

4 METHODOLOGY

Broadly speaking, each variable that was selected as part of one of the sub-indices described previously in Part Two, Chapter 2 is considered a realization of some underlying level of governance from one of the three major dimensions of the governance process: QoD, QoG and QoL. From here, the variables can be used to estimate and learn of countries' underlying levels of governance in each of those three major dimensions and each sub-index.

More specifically, the estimates of countries' levels of governance are generated from (Bayesian) factor analysis models. The Berggruen Governance Index's Bayesian factor analysis seeks to answer a simple question: Given the data that we observe about countries, what can we reasonably believe is their underlying level of governance for a particular dimension or category?

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We chose a Bayesian factor analysis framework for weighting and aggregating data over other existing approaches for four reasons: it 1) comes closest to revealing the yet unknown patterns and processes in the data, 2) does not rely on (arbitrarily) selected weights, 3) allows us to generate measures of uncertainty for our estimates, and 4) produces results that are fully replicable. A description of the procedure is outlined briefly below using the QoG index as an example, while more technical details are provided in the next part of this chapter.

In general, the Berggruen Governance Index seeks to find the underlying levels of governance across and within countries. This level of governance cannot be directly observed in terms of quality of government, or the individual structures and incentives to perform tasks well. However, we have a variety of variables that we believe—based on theory and common wisdom—are related to it. For example, we believe that variables measuring corruption and judicial impartiality are representative of this underlying level of governance. Therefore, we start by assuming that there is an unobservable variable—a measure of governance—that leads to those variables that we actually are able to witness and subsequently measure. Some observed variables—those, for instance, related to corruption—may have a strong association with this unobserved, underlying level of governance. On the other hand, other observed variables—those related to business regulation, for example—may not be linked as strongly, if at all. The goal is to estimate countries' unobservable performance on the respective governance dimension using the information we do have in the variables collected.

Since we do not know beforehand the actual strength of the association between the variable and the aggregate index, we begin by setting weights, or prior beliefs, that are highly "uninformative". That is, we assign initial parameters that are identical for all variables and sufficiently wide so that no single variable is prized, essentially leaving open the question of which variable should be weighted more or less heavily. Then as the computation proceeds, these initial parameters are updated automatically to reflect the emerging findings. For example, as it turns out that countries scoring high on the aggregate quality of government index consistently have high scores on certain variables, while countries scoring low on the aggregate index score low on these same variables, it becomes more likely that these variables more strongly influence or determine the result than others do. In this way, we allow the data to inform us as to which variables are ultimately most important.

This method allows us to perform several tasks all at once: A Bayesian factor analysis can extract a signal from noisy indicators; provides a more principled approach to aggregation by avoiding the use of pre-defined weights; and finally, scales different sources so that they can be meaningfully combined. In addition, the Bayesian approach allows us to make probabilistic statements about the quantities that we estimate. For example, we can calculate the probability that a given country is or is not in the top five countries in a particular set of countries for a dimension of governance, or the probability that one country has a higher level of governance compared to another. Finally, it is important to note that this approach is completely transparent as well as replicable, given knowledge of the model setup and access to the data.

For all of these variables, we collected all available data from 2004 to 2018. The collected data are standardized to normal scores (z-scores) and merged together by country and year. The possibility to collect information back in time varies with the type of data source. For instance many of the concepts covered in the QoL dimension of governance are updated annually by organizations such as the World Bank, WHO and Eurostat. Some measures used in the QoG dimension, however, are based upon expert surveys which are not updated annually (for example variables drawn from the IPD).

Scholars sometimes try to deal with missing data by deleting observations that are incomplete. This procedure is likely to introduce bias into the data set if the missing values are not missing completely at random. By contrast, we use multiple imputation, a well-accepted and increasingly common approach to the missing data problem, to fill in missing values. A more detailed explanation of this approach is provided in the next part of this section.

Finally, to simplify the presentation of results we rescale all scores to fit between 0 and 100, so that countries with strong performances receive higher scores.

4.1 METHODOLOGICAL DETAILS

To arrive at estimates of countries' governance performance over time we filled the gaps in the data set using multiple imputation. Multiple imputation involves using the relevant information from the observed information of the data set, i.e., those parts for which we have data, to impute the non-observed information. For each cell for which data are missing in the data matrix, we impute a number of values to create "completed" data sets. Within each of the separate data sets, the observed data remain the same, but the missing values are "filled in" with different imputations. We then use the mean of the imputed values across these data sets to create a combined data set.

To create the multiple imputations we use Amelia II (Honaker et al. 2011), a software package implemented in the statistical programming environment *R*. Amelia's imputation model assumes that the data D (both observed and unobserved) follow a multivariate normal distribution with a mean vector μ and covariance matrix Σ:

$$D \sim N_k(\mu, \Sigma)$$

Data are assumed to be missing at random in that the missingness M only depends on the observed data D^{obs} and not the unobserved data D^{mis} so that

$$p(M \mid D) = p(M \mid D^{obs}).$$

We set up the imputation models to use all of the available information and allow the patterns over time to vary between the countries. We also add ridge priors of one percent of the number of observations to deal with the potential instability of the algorithm caused by the large amount of missing data.

The Bayesian Factor Analysis that we use to create the indices has the following specification:

Given K indicators, denote y_{ikt} the observation of indicator $k \in \{1,2,...,K\}$ for country i, and let θ_{it} be the unobservable underlying level of governance for country i at time t. The model is then,

$$y_{ikt} = \alpha_k + \beta_k \theta_{it} + \varepsilon_{ikt} \quad (1)$$

where β_k is the discrimination parameter, α_k is an indicator specific intercept term, and ε_{ikt} is the error term. This error term is assumed to be distributed according to a normal distribution with mean 0 and standard deviation σ_k, capturing the intuition that some variables may be more "noisy" than others.

A country's latent position likely depends on its position in the previous year. We take this time-dependence into account by using random walk priors for each time period after the initial year. The priors for θ_{it} therefore take the following form:

$$\theta_{it} \sim \begin{cases} \text{Normal}(0,1) & \text{if t = 1} \\ \text{Normal}(\theta_{it-1}, \tau_i) & \text{if t > 1} \end{cases}$$

where τ_i is a country-specific smoothing parameter. We impose the following prior distributions upon the parameters of interest in the model:

$$\alpha_k \sim \text{Normal}(0, \sigma_a),\ \beta_k \sim \text{Normal}(0,5),$$

$$\sigma_a \sim \text{Uniform}(0,5),\ \sigma_k \sim \text{Uniform}(0,5),\ \tau_i \sim \text{Uniform}(0,10)$$

To guarantee local identification and stability of the estimates for the first time period, we recenter the values of θ_{it} when t=1 to ensure that it is distributed with mean 0 and a standard deviation of 1. Note that the prior on the level of association between the observed variables and the underlying governance score is sufficiently wide so that the results are data driven. In cases where we have few variables to estimate an index (less than 5), as is the case for some of the mid-level indices, we use a different prior distribution for the discrimination parameter. In these cases we set $\beta_k \sim \text{LogNormal}(0,1)$. This distribution forces all variables to have a non-negative association with the latent variable, but still allows the estimation to choose which variables have the strongest association. Therefore this slightly more restrictive assumption is weaker than using a weighted average, for example.

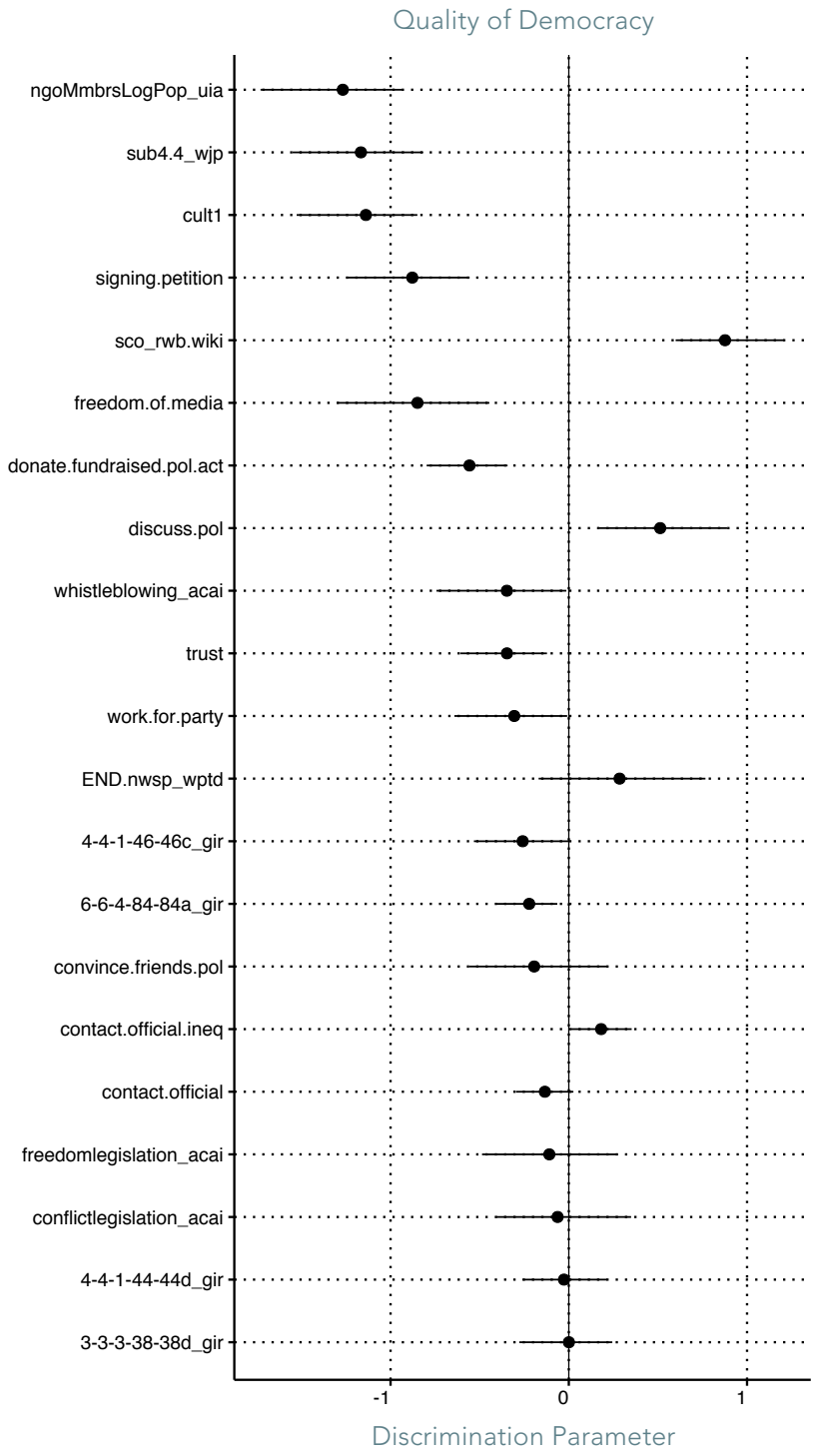

FIGURE 38
Discrimination parameter estimates for the quality of democracy index.

In addition, the distributional assumption on θ_{it} results in a model that is practically identified locally (Jackman 2009). This means that the parameters are identified up to a 180 degree rotation of the latent scale (Jackman 2009). Rather than impose a sign restriction on one of the variables used, which would ensure global identification, we instead simply rotate the latent scale so that it follows a natural interpretation of higher values, meaning better performance on this index. We estimate the model using *Stan* (Stan Development Team 2015), a package for performing Bayesian analysis in the programming environment *R*, running 1 chains for 100000 stored iterations and a burn-in of 10000 iterations.

The following **Figures 38–40** show the discrimination parameters with 95 percent credible intervals of many

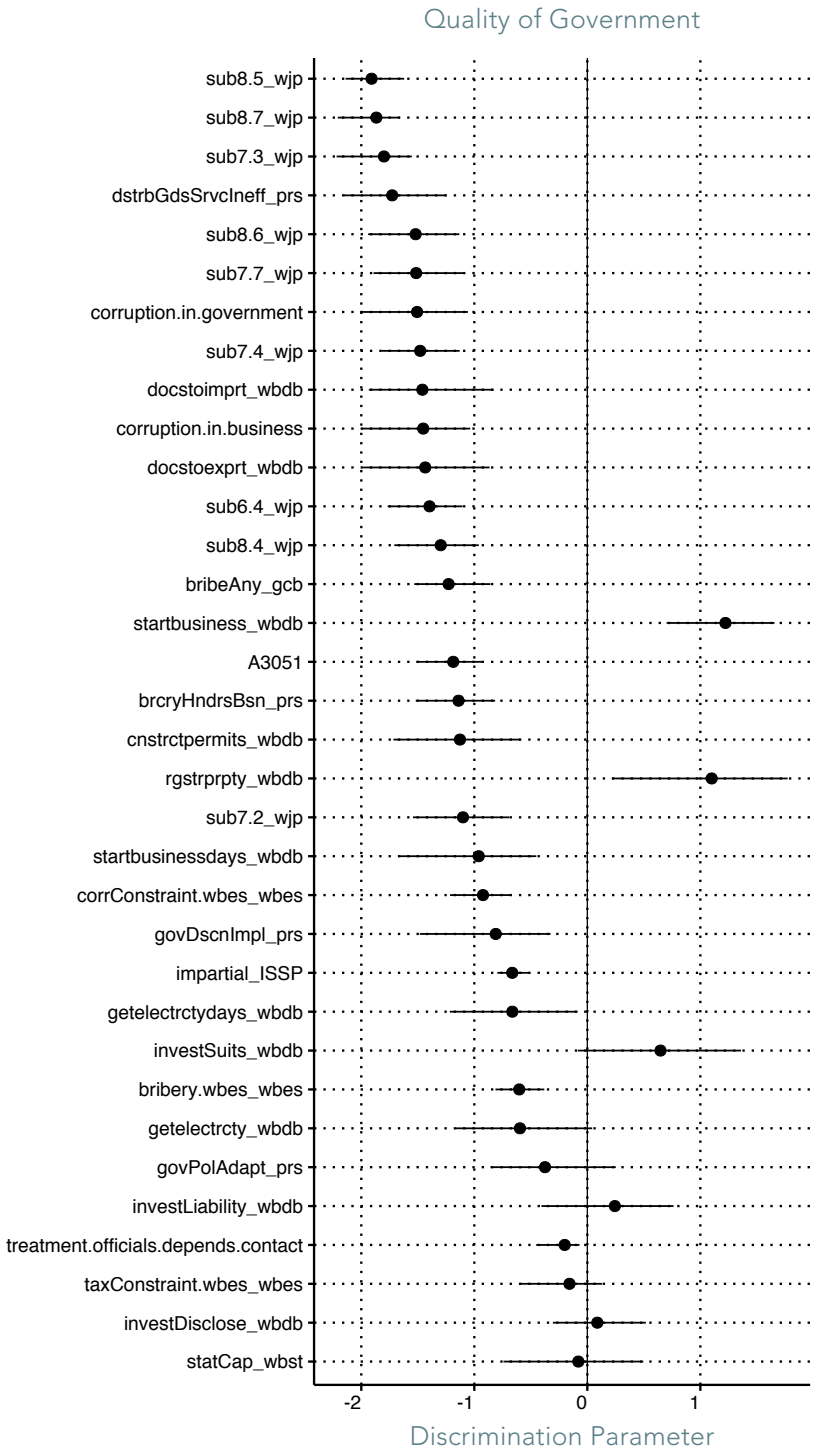

FIGURE 39
Discrimination parameter estimates for the quality of government index.

of our variables for the quality of democracy, quality of government and quality of life index.[17] Those variables with a greatest distance from zero, i.e., the dotted line, have a stronger association than those closest to zero whether they are positive or not.

[17] Variables taken from several sources, e.g. IPD, Quality of Government Expert Survey, and Global Integrity, are sparsely covered ordinal variables and cannot be reliably imputed for all years. Since we did not have 2018 values for them, it was not possible to calculate hypothetical discrimination parameters. We should be able to include discrimination paramaters in future versions of the report.

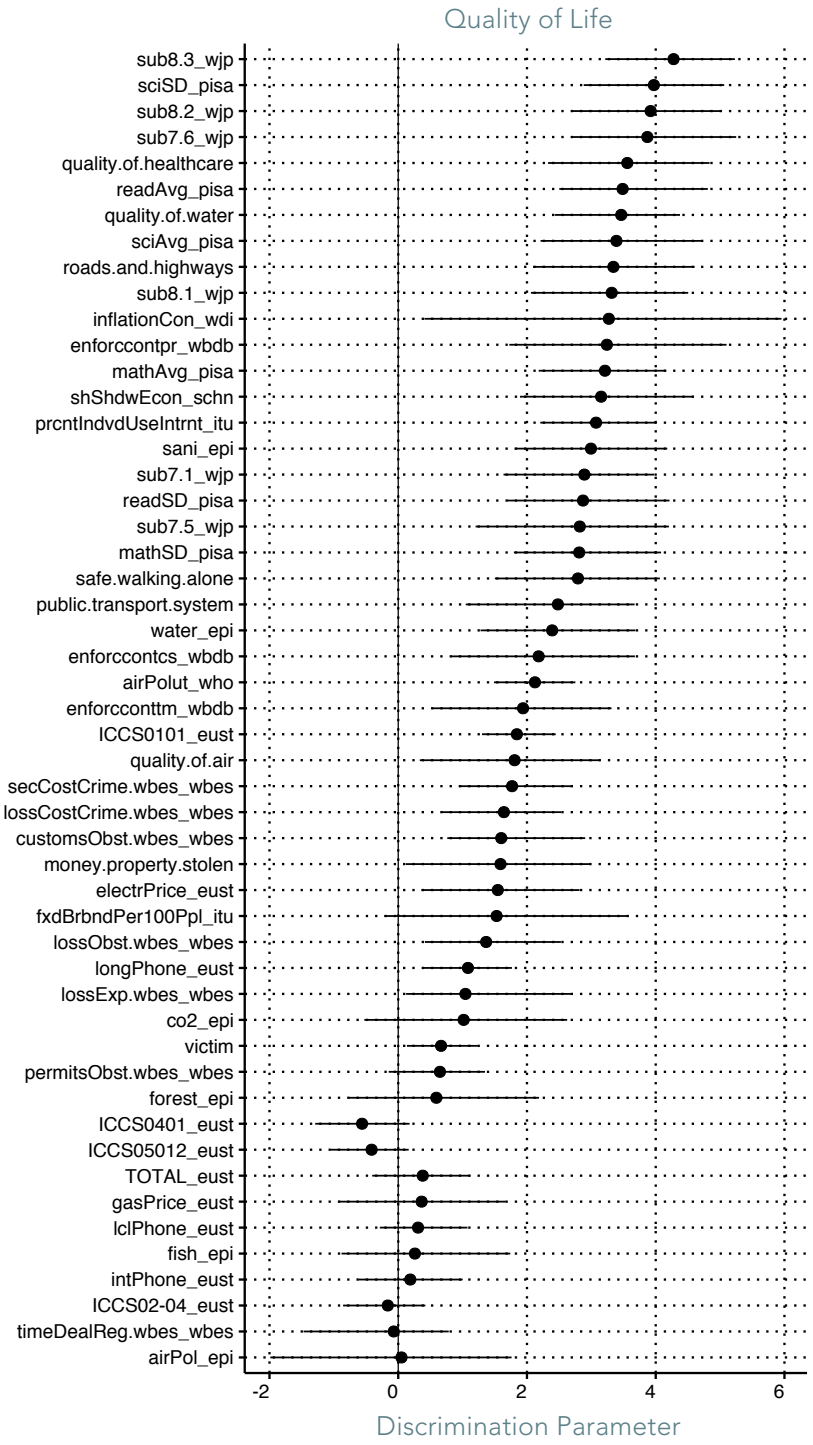

FIGURE 40
Discrimination parameter estimates for the quality of life index.

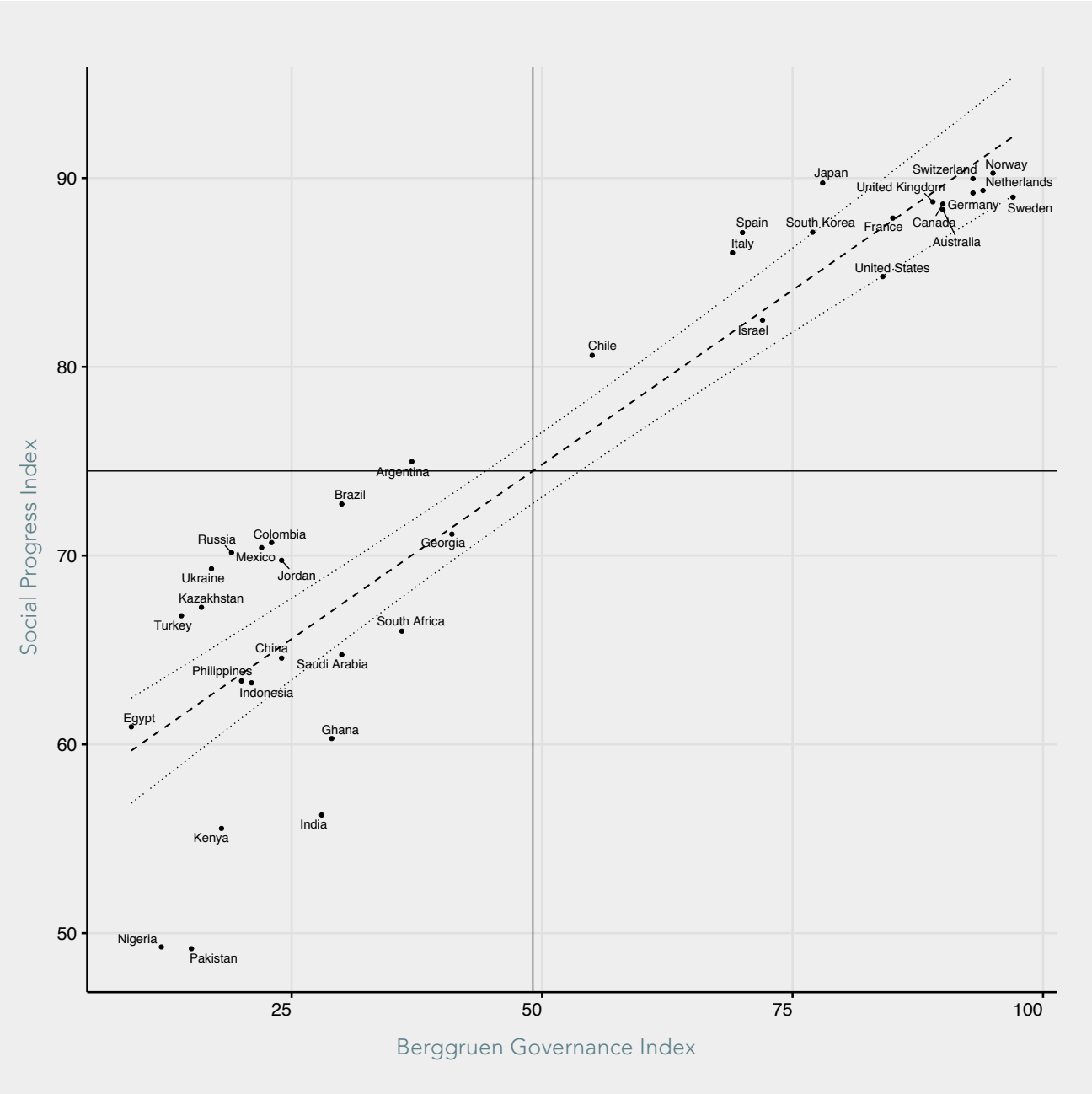

FIGURE 41

The relation between the Berggruen Governance Index and the 2018 Social Progress Index.

4.2 COMPARISON TO OTHER INDICES

The following **Figures 41–44** show how the Berggruen Governance Index relates to other existing indices. In general, we find a significant positive association between the Berggruen overall summary index score and the index score of the Social Progress Index, the World Governance Indicators, and the Bertelsmann Transformation Index. **Figure 44** further shows that the Berggruen Governance Index environment indicator closely relates to the environmental policies dimension of the Sustainable Governance Indicators project. The four comparisons are mainly to illustrate the general soundness of the rankings. As our methodology and measurement strategies are different from the other indices, we cannot directly compare the score of country A on our index to country A on another index.

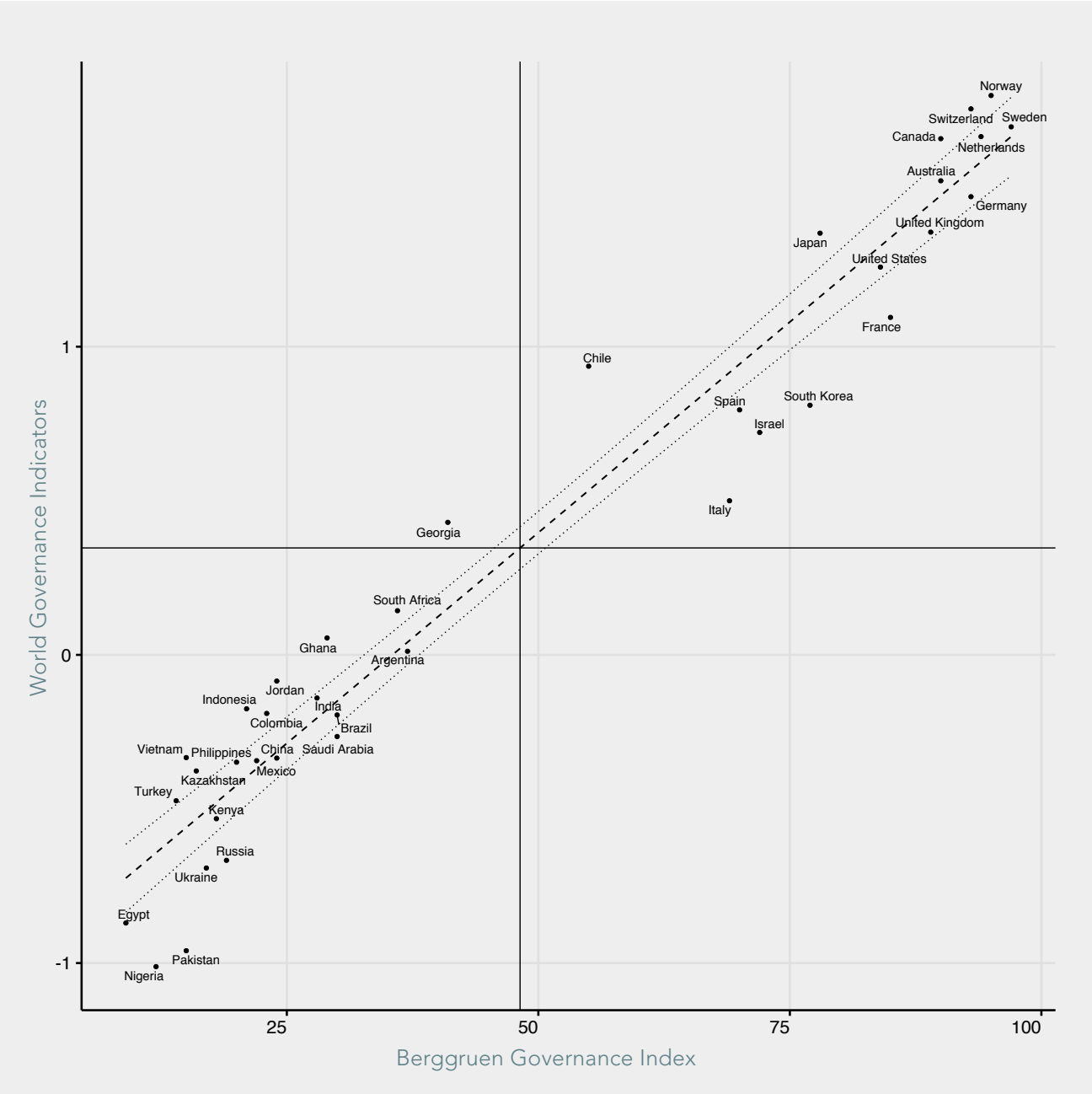

FIGURE 42

The relation between the Berggruen Governance Index and the 2018 World Governance Indicators.

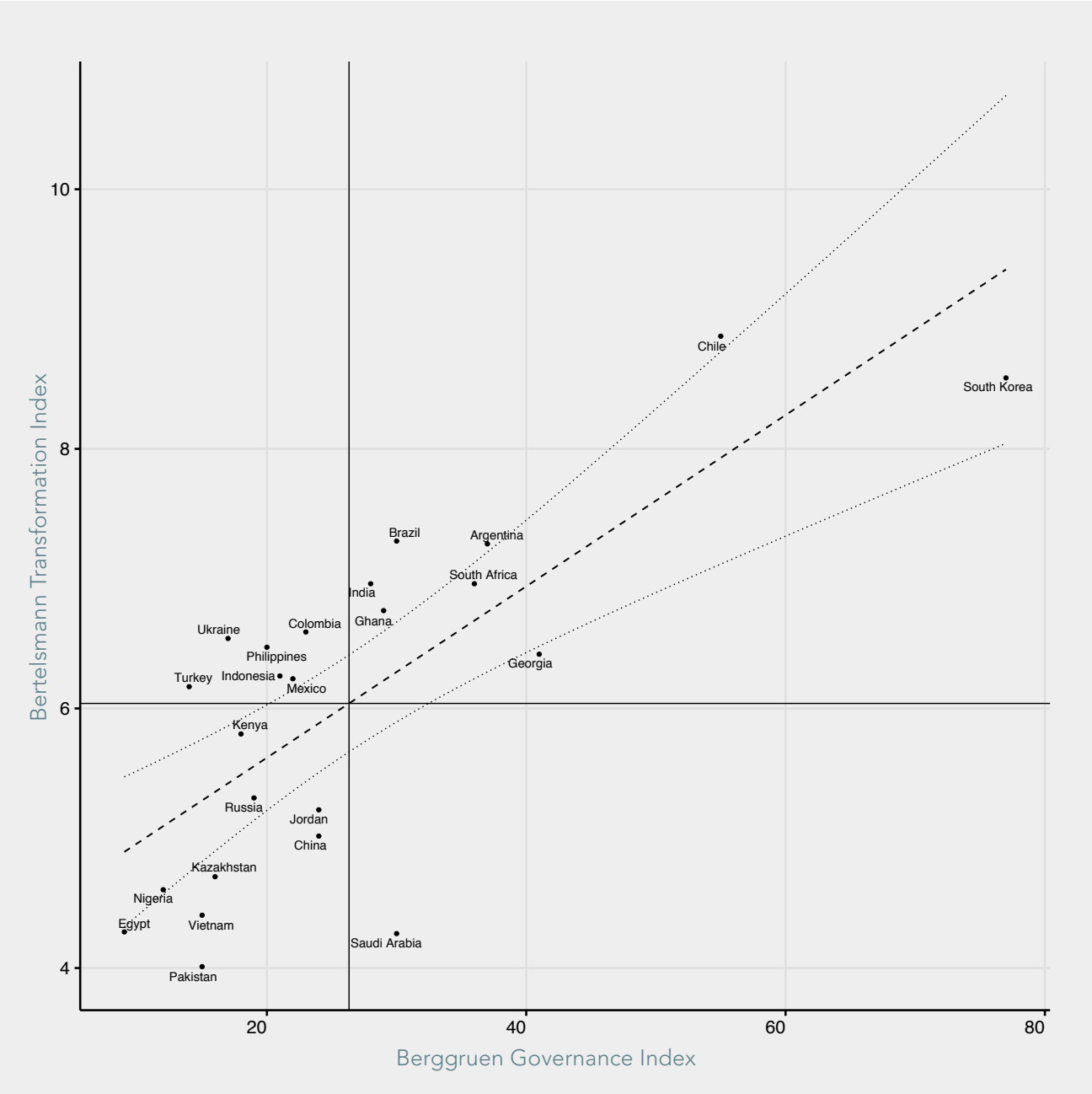

FIGURE 43

The relation between the Berggruen Governance Index and the 2018 Bertelsmann Transformation Index.

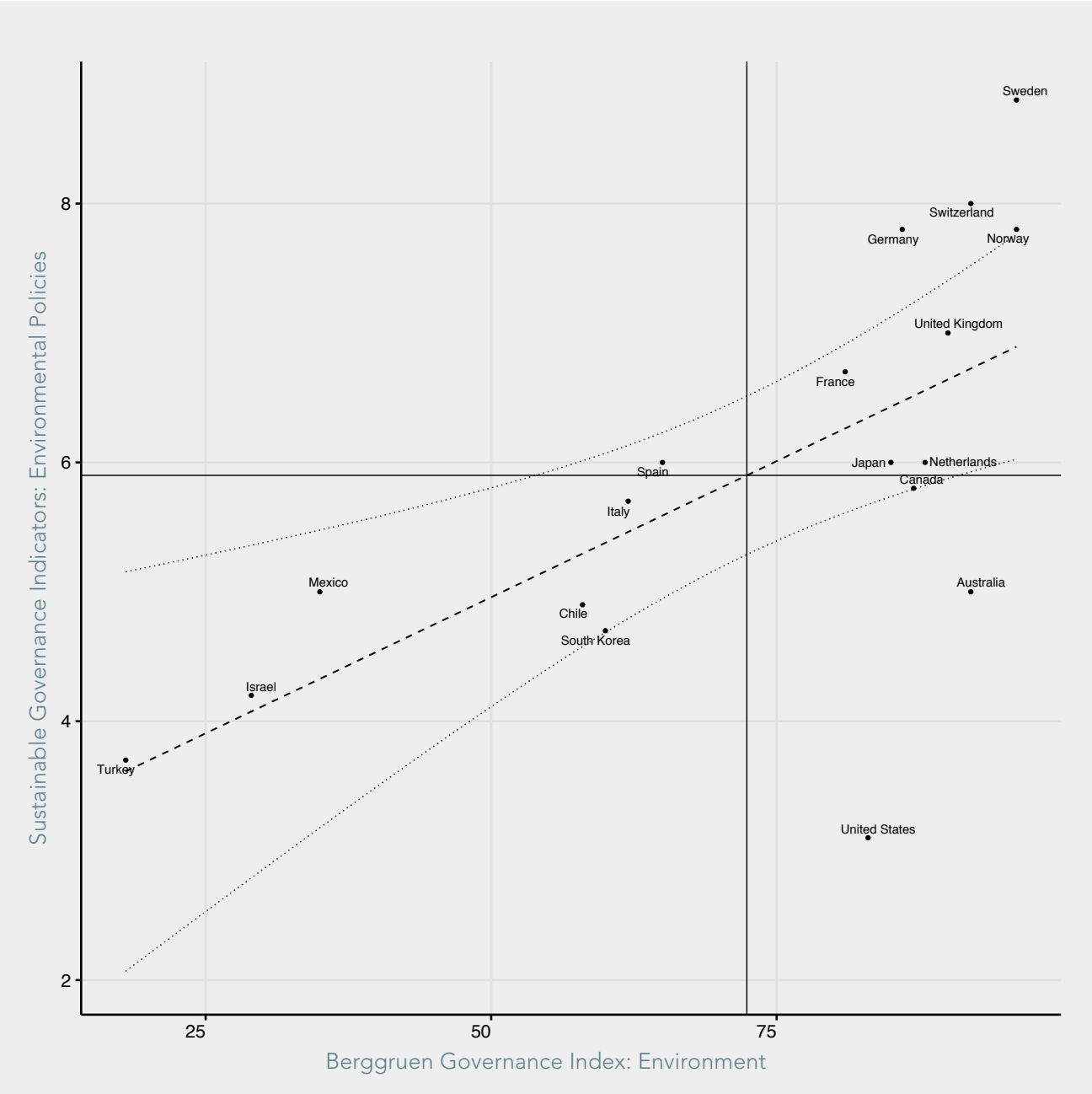

FIGURE 44

The relation between the Berggruen Governance Index Environment Indicator and the 2018 Sustainable Governance Indicators Environmental Policies Dimension.

5 REFERENCES AND DATA SOURCES

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2019 Berggruen Governance Index

| CODEBOOK

6 2019 BERGGRUEN GOVERNANCE INDEX | CODEBOOK

VARIABLE	DESCRIPTION	SOURCE
3-3-3-38-38d_gir	de jure revolving door restrictions on judges	Global Integrity Report
In law, there are restrictions for national-level judges entering the private sector after leaving the government.		
3-3-3-38-38e_gir	de facto regulation of revolving door restrictions on judges	Global Integrity Report
In practice, the regulations restricting post-government private sector employment for national-level judges are effective.		
4-4-1-44-44d_gir	de jure prohibition of civil servants convicted of corruption	Global Integrity Report
In law, civil servants convicted of corruption are prohibited from future government employment.		
4-4-1-45-45i_gir	de facto prohibition of civil servants convicted of corruption	Global Integrity Report
In practice, civil servants convicted of corruption are prohibited from future government employment.		
4-4-1-46-46c_gir	de jure revolving door restrictions on civil servants	Global Integrity Report
In law, there are restrictions for civil servants entering the private sector after leaving the government.		
6-6-4-84-84a_gir	de jure mechanism for complaints about police	Global Integrity Report
In law, there is an independent mechanism for citizens to complain about police action.		
6-6-4-84-84b_gir	de facto mechanism for complaints about police	Global Integrity Report
In practice, the independent law enforcement complaint reporting mechanism responds to citizen's complaints within a reasonable time period.		
A1040	Freedom of the Press	Institutional Profiles Database (IPD)
Freedom of the press (freedom of access to information, protection of journalists etc.)		
A1041	Genuine media pluralism	Institutional Profiles Database (IPD)
Genuine media pluralism		
A1042	Freedom of access on the internet	Institutional Profiles Database (IPD)
Freedom of access, navigation and publication on the Internet		
A2000	Security of goods and persons	Institutional Profiles Database (IPD)
Degree of security of goods and persons		
A2001	Security across the territory	Institutional Profiles Database (IPD)
Does the State ensure security across the national territory?		
A3001	Reliability: State budget	Institutional Profiles Database (IPD)
Reliability of the State budget (completeness, credibility, performance etc.)		
A3002	Reliability: State accounts	Institutional Profiles Database (IPD)
Reliability of the State accounts (completeness, audit, budget review law etc.)		
A3003	Reliability: economic and financial statistics	Institutional Profiles Database (IPD)
Reliability of basic economic and financial statistics (e.g. national accounts, price indices, foreign trade, currency and credit etc.).		
A3010	Economic policy: communication	Institutional Profiles Database (IPD)
Is State economic policy (e.g. budgetary policy, fiscal policy etc.) communicated?		
A3011	Economic policy: public debate	Institutional Profiles Database (IPD)
Is State economic policy (e.g. budgetary policy, fiscal policy etc.) publicly debated?		

VARIABLE	DESCRIPTION	SOURCE
A3020	Corruption: petty corruption (citizens/administrations)	Institutional Profiles Database (IPD)
Level of "petty" corruption between citizens and the administrations		
A3021	Corruption: political corruption	Institutional Profiles Database (IPD)
Level of "political corruption" (e.g. vote buying, illegal campaign financing, bribery etc.)		
A3022	Corruption: between administrations and local businesses	Institutional Profiles Database (IPD)
Level of corruption between administrations and local businesses		
A3023	Corruption: between administrations and foreign businesses	Institutional Profiles Database (IPD)
Level of corruption between administrations and foreign businesses		
A3030	Efficiency of the tax administration: corporation tax	Institutional Profiles Database (IPD)
Efficiency of the tax administration in relation to the collection of corporation tax in non-exempt economic sectors?		
A3031	Efficiency of the tax administration: income tax	Institutional Profiles Database (IPD)
Efficiency of the tax administration in relation to the collection of income tax of households with formal income (excluding measures exempting low-income households)?		
A3032	Efficiency of the tax administration: national territory	Institutional Profiles Database (IPD)
Efficiency of the tax administration in relation to the collection of tax across the whole of the national territory (excluding statutory scheme exempting parts of the territory for specific reasons)?		
A3033	Ability to limit tax evasion	Institutional Profiles Database (IPD)
Practical ability of the administration to limit tax evasion		
A3040	Transparency: public procurement	Institutional Profiles Database (IPD)
Degree of transparency in public procurement		
A3050	Judicial independence	Institutional Profiles Database (IPD)
Degree of judicial independence vis-à-vis the State		
A3051	Enforcement of judicial decisions	Institutional Profiles Database (IPD)
Degree of enforcement of judicial decisions		
A3052	Timeliness of judicial decisions	Institutional Profiles Database (IPD)
Timeliness of judicial decisions		
A3053	Equal treatment before the law: citizens	Institutional Profiles Database (IPD)
Equal treatment of citizens before the law		
A5010	Coordination/collaboration: between ministries	Institutional Profiles Database (IPD)
Degree of coordination/collaboration between ministries		
A5011	Coordination/collaboration: within administration	Institutional Profiles Database (IPD)
Degree of coordination/collaboration within administrations		
A5020	Long-term strategic vision	Institutional Profiles Database (IPD)
Are the actions of the public authorities in line with a long-term strategic vision?		
A5022	Strategic vision: capacity to encourage	Institutional Profiles Database (IPD)
Do the public authorities have the capacity to encourage public and private stakeholders to work towards that vision? (through tax and financial incentives etc.)		
A5030	Strategic vision: human capital	Institutional Profiles Database (IPD)
Do the public authorities have a long-term strategic vision for the development of human capital (education, health etc.)?		
A5031	Strategic vision: territorial/urban planning	Institutional Profiles Database (IPD)
Do the public authorities have a long-term strategic vision for territorial/urban planning?		

VARIABLE	DESCRIPTION	SOURCE
A5032	Strategic vision: protection of the environment	Institutional Profiles Database (IPD)
Do the public authorities have a long-term strategic vision to protect the environment?		
A5033	Strategic vision: international/regional integration	Institutional Profiles Database (IPD)
Do the public authorities have a long-term strategic vision relating to international or regional integration?		
A5071	Evaluation of public policies	Institutional Profiles Database (IPD)
Is the evaluation of public policies a common practice?		
A5072	Capacity to adapt policies	Institutional Profiles Database (IPD)
Authorities' capacity to adapt policies to changes in the economic and social contexts		
A5074	Overall coherence of public policies	Institutional Profiles Database (IPD)
Overall coherence of public policies		
A5081	divisions between the State apparatus	Institutional Profiles Database (IPD)
Is the capacity of national public authorities hampered by divisions within the State apparatus?		
A6000	Legal means to protect property rights	Institutional Profiles Database (IPD)
Efficiency of the legal means to protect property rights in the event of conflict between private stakeholders?		
A6020	timeliness of Judicial decisions in commercial matters	Institutional Profiles Database (IPD)
Timeliness of judicial decisions in commercial matters		
A6021	Impartiality of the justice system in commercial disputes involving the State	Institutional Profiles Database (IPD)
Impartiality of the justice system in commercial disputes involving the State		
A6022	Impartiality of the justice system in commercial disputes involving national stakeholders	Institutional Profiles Database (IPD)
Impartiality of the justice system in commercial disputes involving national stakeholders only		
A6023	Impartiality of the justice system in commercial disputes involving nationals and foreigners	Institutional Profiles Database (IPD)
Impartiality of the justice system in commercial disputes involving national and foreign stakeholders		
A6030	Insolvency legislation	Institutional Profiles Database (IPD)
Is insolvency legislation efficient?		
A6031	Restructuring procedures	Institutional Profiles Database (IPD)
Efficiency of restructuring procedures in the event of insolvency		
A9040	Equal access to public schools	Institutional Profiles Database (IPD)
Equal treatment in practice in terms of access to public schools		
A9041	Equal access to public healthcare	Institutional Profiles Database (IPD)
Equal treatment in practice in terms of access to public healthcare		
A9042	Equal administrative procedures	Institutional Profiles Database (IPD)
Equal treatment in practice in terms of administrative procedures		
A9043	Equal access to public employment	Institutional Profiles Database (IPD)
Equal treatment in practice in terms of access to public employment		
A9050	Territorial coverage: public schools	Institutional Profiles Database (IPD)
Territorial coverage of public services: public schools (primary and secondary)		
A9051	Territorial coverage: basic healthcare services	Institutional Profiles Database (IPD)
Territorial coverage of public services: basic healthcare services		
A9052	Territorial coverage: drinking water and sanitation networks	Institutional Profiles Database (IPD)
Territorial coverage of public services: drinking water and sanitation networks		

VARIABLE	DESCRIPTION	SOURCE
A9053	Territorial coverage: electricity grid	Institutional Profiles Database (IPD)
Territorial coverage of public services: electricity grid		
A9054	Territorial coverage: transport infrastructure	Institutional Profiles Database (IPD)
Territorial coverage of public services: transport infrastructure		
A9055	Territorial coverage: maintenance and solid waste disposal	Institutional Profiles Database (IPD)
Territorial coverage of public services: maintenance and solid waste disposal		
airPol_epi	air pollution	Environmental Performance Index
Population weighted exposure to PM2.5 (three- year average)		
airPolut_who	air pollution, urban	World Health Organization
The mean annual concentration of fine suspended particles of less than 10 microns in diameters is a common measure of air pollution. The mean is a population-weighted average for urban population in a country.		
B3000	ease of starting a business	Institutional Profiles Database (IPD)
Ease of starting a business governed by local law?		
B3001	ease of setting up a subsidiary of a foreign firm	Institutional Profiles Database (IPD)
Ease of setting up a subsidiary of a foreign firm		
B7000	Barriers to entry related to administration	Institutional Profiles Database (IPD)
Barriers to entry related to administration		
B7020	Competition regulation in the market sector	Institutional Profiles Database (IPD)
Competition regulation in the market sector		
brcryHndrsBsn_prs	Bureaucracy hinders business activity	World Competitiveness Yearbook
Bureaucracy hinders business activity		
bribeAny_gcb	paid a bribe in the last 12 months	Global Corruption Barometer (GCB)
In the past 12 months have you or anyone living in your household paid a bribe in any form to each of the following institutions/organizations? (Education system, Legal system/ Judiciary system, Medical services, Police, Registry and permit services, Utilities, Tax revenue, Land services)		
bribery.wbes_wbes	bribery incidence in firms	Enterprise Surveys
The percent of firms experiencing at least one bribe payment request across 6 public transactions dealing with utilities access, permits, licenses, and taxes. The six public transaction questions are listed below.		
C7030	Efficiency of the banking supervisory authority	Institutional Profiles Database (IPD)
Efficiency of the banking supervisory authority		
C7031	Efficiency of the insurance market supervisory authority	Institutional Profiles Database (IPD)
Efficiency of the insurance market supervisory authority		
C7032	Efficiency of the financial market supervisory authority	Institutional Profiles Database (IPD)
Efficiency of the financial market supervisory authority		
cnstrctpermits_wbdb	no. of procedures to deal with construction permits	Doing Business
Dealing with Construction Permits: Procedures (number). A procedure is any interaction of the company's employees or managers, or any party acting on behalf of the company, with external parties, including government agencies, notaries, the land registry, the cadastre, utility companies and public inspectors, or the hiring of private inspectors and technical experts apart from in-house architects and engineers. Interactions between company employees, such as development of the warehouse plans and inspections conducted by employees, are not counted as procedures. But interactions necessary to obtain any plans, drawings or other documents from external parties, or to have such documents approved or stamped by external parties, are counted as procedures. Procedures that the company undergoes to connect to water, sewerage and telephone services are included. All procedures that are legally required, or that are done in practice by the majority of companies, to build a warehouse are counted, even if they may be avoided in exceptional cases (table 21.4).		

VARIABLE	DESCRIPTION	SOURCE
co2_epi	change in CO2 emissions	Environmental Performance Index
Change in CO2 emissions from electricity and heat production		
conflictlegislation_acai	conflict of interest legislation	Anticorruption Authorities Initiative
Does your country have conflict of interest legislation?		
contact.official	contacted an official	ESS, Arab Barometer, ISSP, LatinoBarometer, Asian Barometer, AfroBarometer
1. There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you contacted a politician, government or local government official? 2. During the past five years, have you ever used wasta to achieve something personal, family related, or a neighborhood problem? 3. Contacted, or attempt to contact, a politician or a civil servant to express your views. 4. In the past three years, for you or your family, in order to solve problems that affect you in your neighborhood/community with the authorities? 5. In the past three (3) years, have you never, once, or more than once done the following because of personal, family, or neighborhood problems, or problems with government officials and policies? 6. During the past five years, have you ever used wasta to achieve something personal, family related, or a neighborhood problem? Contact local government councilor? Contact MP?		
contact.official.ineq	contacted an official, adjusted by income decile	ESS, Arab Barometer, ISSP, LatinoBarometer, Asian Barometer, AfroBarometer
1. There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you contacted a politician, government or local government official? During the past five years, have you ever used wasta to achieve something personal, family related, or a neighborhood problem? 2. Contacted, or attempt to contact, a politician or a civil servant to express your views. 3. In the past three years, for you or your family, in order to solve problems that affect you in your neighborhood/community with the authorities. 4. In the past three (3) years, have you never, once, or more than once done the following because of personal, family, or neighborhood problems, or problems with government officials and policies? 5- During the past five years, have you ever used wasta to achieve something personal, family related, or a neighborhood problem? Contact local government councilor Contact MP?		
convince.friends.pol	convinced friends politically	ISSP, LatinoBarometer
1. When you hold a strong opinion about politics, how often do you try to persuade your friends, relatives or fellow workers to share your views? 2. How frequently do you do each of the following things? Try to convince politically		
corrConstraint.wbes_wbes	corruption as a major constraint to firms	Enterprise Surveys
Percentage of firms identifying corruption as a “major” or “very severe” obstacle.		
corruption.in.business	corruption widespread within businesses	Gallup
Is corruption widespread within businesses located in this country, or not?		
corruption.in.government	corruption widespread throughout the government	Gallup
Is corruption widespread throughout the government in this country, or not?		
cult1	first dimension of culture factors	World Values Survey (WVS)
first of four factors determined through a PCA analysis of culture related questions in World Values Survey		
customsObst.wbes_wbes	customs and trade regulations as a major constraint to firms	Enterprise Surveys (World Bank)
Percentage of firms identifying customs and trade regulations as a “major” or “very severe” obstacle.		
D4000	guaranteed hiring of graduates in the public sector	Institutional Profiles Database (IPD)
Practice of guaranteed hiring of graduates in the public sector		
D9000	quality of public primary and secondary education, urban	Institutional Profiles Database (IPD)
Quality of public services primary and secondary education (urban areas)		

VARIABLE	DESCRIPTION	SOURCE
D9001	quality of public primary and secondary education, rural	Institutional Profiles Database (IPD)
Quality of public services primary and secondary education (rural areas)		
D9002	quality of public higher education/university	Institutional Profiles Database (IPD)
Quality of public services higher education/university		
D9003	quality of public basic healthcare	Institutional Profiles Database (IPD)
Quality of public services (provided by the public sector) in relation to basic healthcare		
D9004	quality of public transport	Institutional Profiles Database (IPD)
Quality of public services (provided by the public sector) in relation to public transport		
D9030	Role of networks in recruitment and promotion in the administration	Institutional Profiles Database (IPD)
Role of networks in recruitment and promotion in the administration		
D9051	Role of networks selection of senior officials	Institutional Profiles Database (IPD)
Role of networks selection of senior officials		
discuss.pol	political discussion with friends	EVS, ISSP, LatinoBarometer, Asian Barometer, AfroBarometer
1. When you get together with your friends, would you say you discuss political matters frequently, occasionally or never? 2. When you get together with your friends, relatives or fellow workers how often do you discuss politics? 3. How frequently do you do each of the following things? Talk politics with friends 4. When you get together with your family members or friends, how often do you discuss political matters? 5. When you get together with your friends or family, would you say you discuss political matters?		
docstoexprt_wbdb	no. of documents to export	Doing Business
Trading Across Borders: Documents to export (number). All documents required per shipment to export and import the goods are recorded (table A.1). It is assumed that a new contract is drafted per shipment and that the contract has already been agreed upon and executed by both parties. Documents required for clearance by relevant agencies--including government ministries, customs, port authorities and other control agencies--are taken into account. Since payment is by letter of credit, all documents required by banks for the issuance or securing of a letter of credit are also taken into account. For landlocked economies, documents required by authorities in the transit economy are also included. Documents that are requested at the time of clearance but that are valid for a year or longer and do not require renewal per shipment (for example, an annual tax clearance certificate) are not included. Documents that are required purely for purposes of preferential treatment are no longer included; for example, a certificate of origin if the use is only to qualify for a preferential tariff rate under trade agreements. It is assumed that the exporter will always obtain a certificate of origin for its trade partner, however, and the time and cost associated with obtaining it are included in the time and cost to export.		
docstoimprt_wbdb	no. of documents to import	Doing Business
Trading Across Borders: Documents to import (number). All documents required per shipment to export and import the goods are recorded (table A.1). It is assumed that a new contract is drafted per shipment and that the contract has already been agreed upon and executed by both parties. Documents required for clearance by relevant agencies--including government ministries, customs, port authorities and other control agencies--are taken into account. Since payment is by letter of credit, all documents required by banks for the issuance or securing of a letter of credit are also taken into account. For landlocked economies, documents required by authorities in the transit economy are also included. Documents that are requested at the time of clearance but that are valid for a year or longer and do not require renewal per shipment (for example, an annual tax clearance certificate) are not included. Documents that are required purely for purposes of preferential treatment are no longer included; for example, a certificate of origin if the use is only to qualify for a preferential tariff rate under trade agreements. It is assumed that the exporter will always obtain a certificate of origin for its trade partner, however, and the time and cost associated with obtaining it are included in the time and cost to export.		
donate.fundraised.pol.act	donated money for political campaign	ISSP
Donated money or raised funds for a social or political activity		

VARIABLE	DESCRIPTION	SOURCE
dstrbGdsSrvcIneff_prs	The distribution infrastructure of goods and services is generally inefficient	World Competitiveness Yearbook
The distribution infrastructure of goods and services is generally inefficient		
electrPrice_eust	Electricity prices	Eurostat
Electricity prices for domestic and industrial consumers- bi-annual data		
END.nwsp_wptd	Effective Number of Dailies	World Press Trends Database
Effective Number of Dailies. This is defined as where i indexes the N newspapers within a country in a specific year, and pi share (as a fraction between 0 and 1) of newspaper i. This measure, derived from the Effective Number of Parties (Laakso and Taagepera 1979) reflects at the same time the number and the market share of the newspapers in a given country and year.		
enforccontcs_wbdb	cost of enforcing contracts	Doing Business
Enforcing Contracts: Cost (% of claim). Cost is recorded as a percentage of the claim, assumed to be equivalent to 200% of income per capita. No bribes are recorded. Three types of costs are recorded: court costs, enforcement costs and average attorney fees. Court costs include all court costs that Seller (plaintiff) must advance to the court, regardless of the final cost to Seller. Enforcement costs are all costs that Seller (plaintiff) must advance to enforce the judgment through a public sale of Buyer's movable assets, regardless of the final cost to Seller. Average attorney fees are the fees that Seller (plaintiff) must advance to a local attorney to represent Seller in the standardized case.		
enforccontpr_wbdb	no. of procedures to enforce contracts	Doing Business
Enforcing Contracts: Procedures (number). The list of procedural steps compiled for each economy traces the chronology of a commercial dispute before the relevant court. A procedure is defined as any interaction, required by law or commonly used in practice, between the parties or between them and the judge or court officer. Other procedural steps, internal to the court or between the parties and their counsel, may be counted as well. Procedural steps include steps to file and serve the case, steps to assign the case to a judge, steps for trial and judgment and steps necessary to enforce the judgment (table 21.12). To indicate overall efficiency, 1 procedure is subtracted from the total number for economies that have specialized commercial courts, and 1 procedure for economies that allow electronic filing of the initial complaint in court cases. Some procedural steps that are part of others are not counted in the total number of procedures.		
enforcconttm_wbdb	days to enforce contracts	Doing Business
Enforcing Contracts: Time (days). Time is recorded in calendar days, counted from the moment the plaintiff decides to file the lawsuit in court until payment. This includes both the days when actions take place and the waiting periods between. The average duration of different stages of dispute resolution is recorded: the completion of service of process (time to file and serve the case), the issuance of judgment (time for the trial and obtaining the judgment) and the moment of payment (time for enforcement of the judgment).		
fish_epi	Fish Stocks	Environmental Performance Index
Percentage of fishing stocks overexploited and collapsed from EEZ (exclusive economic zone)		
forest_epi	Change in Forest Cover	Environmental Performance Index
Forest loss - Forest gain in > 50% tree cover, as compared to 2000 levels.		
freedom.of.media	Freedom of media	Gallup
Do the media in this country have a lot of freedom, or not?		
freedomlegislation_acai	freedom of information legislation	Anticorruption Authorities Initiative
Does your country have freedom of information legislation?		
fxdBrbndPer100Ppl_itu	Fixed-broadband subscriptions per 100 inhabitants	International Telecommunication Union
Fixed-broadband subscriptions per 100 inhabitants		
gasPrice_eust	Gas prices	Eurostat
Gas prices for domestic and industrial consumers - bi-annual data		

VARIABLE	DESCRIPTION	SOURCE
getelectrcty_wbdb	procedures to get electricity (firms)	Doing Business
Getting Electricity: Procedures (number). A procedure is defined as any interaction of the company's employees or its main electrician or electrical engineer (that is, the one who may have done the internal wiring) with external parties such as the electricity distribution utility, electricity supply utilities, government agencies, electrical contractors and electrical firms. Interactions between company employees and steps related to the internal electrical wiring, such as the design and execution of the internal electrical installation plans, are not counted as procedures. Procedures that must be completed with the same utility but with different departments are counted as separate procedures (table A.1). The company's employees are assumed to complete all procedures themselves unless the use of a third party is mandated (for example, if only an electrician registered with the utility is allowed to submit an application). If the company can, but is not required to, request the services of professionals (such as a private firm rather than the utility for the external works), these procedures are recorded if they are commonly done. For all procedures, only the most likely cases (for example, more than 50% of the time the utility has the material) and those followed in practice for connecting a warehouse to electricity are counted.		
getelectrctydays_wbdb	days to get electricity (firms)	Doing Business
Getting Electricity: Time (days). Time is recorded in calendar days. The measure captures the median duration that the electricity utility and experts indicate is necessary in practice, rather than required by law, to complete a procedure with minimum follow-up and no extra payments. It is also assumed that the minimum time required for each procedure is 1 day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days). It is assumed that the company does not waste time and commits to completing each remaining procedure without delay. The time that the company spends on gathering information is not taken into account. It is assumed that the company is aware of all electricity connection requirements and their sequence from the beginning.		
govDscnImpl_prs	Government decisions are not effectively implemented	World Competitiveness Yearbook
Government decisions are not effectively implemented		
govPolAdapt_prs	Government economic policies do not adapt quickly to changes in the economy	World Competitiveness Yearbook
Government economic policies do not adapt quickly to changes in the economy		
ICCS0101_eust	Homicide	Eurostat
Crimes recorded by the police by offence category: Intentional homicide		
ICCS02-04_eust	Violent crime	Eurostat
Crimes recorded by the police by offence category: acts causing harm or intending to cause harm to the person, injurious acts of a sexual nature and acts against property involving violence or threat against a person		
ICCS0401_eust	Robbery	Eurostat
Crimes recorded by the police by offence category: Robbery		
ICCS05012_eust	Burglary	Eurostat
Crimes recorded by the policy by offence category: Burglary of private residential premises		
impartial_ISP.ineq	Impartiality of public officials, adjusted by income decile	ISSP
Some people because of their job, position in the community or contacts, are asked by others to help influence important decisions in their favour. What about you? In your opinion, how often do public officials deal fairly with people like you?		
impartial_ISSP	Impartiality of public officials	ISSP
Some people because of their job, position in the community or contacts, are asked by others to help influence important decisions in their favour. What about you? In your opinion, how often do public officials deal fairly with people like you?		
inflationCon_wdi	Inflation, consumer prices (annual %)	World Development Indicators
Inflation, consumer prices (annual %)		
intPhone_eust	Telecommunication services: prices	Eurostat
Telecommunication services: prices. International calls to USA (10 minutes)		

VARIABLE	DESCRIPTION	SOURCE
investDisclose_wbdb	extent of disclosure (firms)	Doing Business
Protecting Minority Investors: Extent of disclosure index (0-10). The extent of disclosure index has 5 components (table 21.8): Which corporate body can provide legally sufficient approval for the transaction. A score of 0 is assigned if it is the CEO or the managing director alone; 1 if the board of directors, the supervisory board or shareholders must vote and Mr. James is permitted to vote; 2 if the board of directors or the supervisory board must vote and Mr. James is not permitted to vote; 3 if shareholders must vote and Mr. James is not permitted to vote. Whether immediate disclosure of the transaction to the public, the regulator or the shareholders is required. A score of 0 is assigned if no disclosure is required; 1 if disclosure on the terms of the transaction is required but not on Mr. James's conflict of interest; 2 if disclosure on both the terms and Mr. James's conflict of interest is required. Whether disclosure in the annual report is required. A score of 0 is assigned if no disclosure on the transaction is required; 1 if disclosure on the terms of the transaction is required but not on Mr. James's conflict of interest; 2 if disclosure on both the terms and Mr. James's conflict of interest is required. Whether disclosure by Mr. James to the board of directors or the supervisory board is required. A score of 0 is assigned if no disclosure is required; 1 if a general disclosure of the existence of a conflict of interest is required without any specifics; 2 if full disclosure of all material facts relating to Mr. James's interest in the Buyer-Seller transaction is required. Whether it is required that an external body, for example, an external auditor, review the transaction before it takes place. A score of 0 is assigned if no; 1 if yes. The index ranges from 0 to 10, with higher values indicating greater disclosure. In Poland, for example, the board of directors must approve the transaction and Mr. James is not allowed to vote (a score of 2). Buyer is required to disclose immediately all information affecting the stock price, including the conflict of interest (a score of 2). In its annual report Buyer must also disclose the terms of the transaction and Mr. James's ownership in Buyer and Seller (a score of 2). Before the transaction Mr. James must disclose his conflict of interest to the other directors, but he is not required to provide specific information about it (a score of 1). Poland does not require an external body to review the transaction (a score of 0). Adding these numbers gives Poland a score of 7 on the extent of disclosure index.		
investLiability_wbdb	extent of director liability (firms)	Doing Business
Protecting Minority Investors: Extent of director liability index (0-10). The extent of director liability index has 7 components: Whether a shareholder plaintiff is able to hold Mr. James liable for the damage the Buyer-Seller transaction causes to the company. A score of 0 is assigned if Mr. James cannot be held liable or can be held liable only for fraud, bad faith or gross negligence; 1 if Mr. James can be held liable only if he influenced the approval of the transaction or was negligent; 2 if Mr. James can be held liable when the transaction is unfair or prejudicial to the other shareholders. Whether a shareholder plaintiff is able to hold the approving body (the CEO, members of the board of directors, or members of the supervisory board) liable for the damage the transaction causes to the company. A score of 0 is assigned if the approving body cannot be held liable or can be held liable only for fraud, bad faith, or gross negligence; 1 if the approving body can be held liable for negligence; 2 if the approving body can be held liable when the transaction is unfair or prejudicial to the other shareholders. Whether a court can void the transaction upon a successful claim by a shareholder plaintiff. A score of 0 is assigned if rescission is unavailable or is available only in case of fraud, bad faith or gross negligence; 1 if rescission is available when the transaction is oppressive or prejudicial to the other shareholders; 2 if rescission is available when the transaction is unfair or entails a conflict of interest. Whether Mr. James pays damages for the harm caused to the company upon a successful claim by the shareholder plaintiff. A score of 0 is assigned if no; 1 if yes. Whether Mr. James repays profits made from the transaction upon a successful claim by the shareholder plaintiff. A score of 0 is assigned if no; 1 if yes. Whether both fines and imprisonment can be applied against Mr. James. A score of 0 is assigned if no; 1 if yes. Whether shareholder plaintiffs are able to sue directly or derivatively for the damage the transaction causes to the company. A score of 0 is assigned if suits are unavailable or are available only for shareholders holding more than 10% of the company's share capital; 1 if direct or derivative suits are available for shareholders holding 10% or less of share capital. The index ranges from 0 to 10, with higher values indicating greater liability of directors. Assuming that the prejudicial transaction was duly approved and disclosed, in order to hold Mr. James liable in Panama, for example, a plaintiff must prove that Mr. James influenced the approving body or acted negligently (a score of 1). To hold the other directors liable, a plaintiff must prove that they acted negligently (a score of 1). The prejudicial transaction cannot be voided (a score of 0). If Mr. James is found liable, he must pay damages (a score of 1) but he is not required to disgorge his profits (a score of 0). Mr. James cannot be fined and imprisoned (a score of 0). Direct or derivative suits are available for shareholders holding 10% or less of share capital (a score of 1). Adding these numbers gives Panama a score of 4 on the extent of director liability index.		

VARIABLE	DESCRIPTION	SOURCE
investSuits_wbdb	ease of shareholder suits (firms)	Doing Business
Protecting Minority Investors: Ease of shareholder suits index (0-10). The ease of shareholder suits index has 6 components: What range of documents is available to the shareholder plaintiff from the defendant and witnesses during trial. A score of 1 is assigned for each of the following types of documents available: information that the defendant has indicated he intends to rely on for his defense; information that directly proves specific facts in the plaintiff's claim; any information relevant to the subject matter of the claim; and any information that may lead to the discovery of relevant information. Whether the plaintiff can directly examine the defendant and witnesses during trial. A score of 0 is assigned if no; 1 if yes, with prior approval of the questions by the judge; 2 if yes, without prior approval. Whether the plaintiff can obtain categories of relevant documents from the defendant without identifying each document specifically. A score of 0 is assigned if no; 1 if yes. Whether shareholders owning 10% or less of the company's share capital can request that a government inspector investigate the Buyer-Seller transaction without filing suit in court. A score of 0 is assigned if no; 1 if yes. Whether shareholders owning 10% or less of the company's share capital have the right to inspect the transaction documents before filing suit. A score of 0 is assigned if no; 1 if yes. Whether the standard of proof for civil suits is lower than that for a criminal case. A score of 0 is assigned if no; 1 if yes. The index ranges from 0 to 10, with higher values indicating greater powers of shareholders to challenge the transaction. In Croatia, for example, the plaintiff can access documents that the defendant intends to rely on for his defense (a score of 1). The plaintiff can examine the defendant and witnesses during trial, without prior approval of the questions by the court (a score of 2). The plaintiff must specifically identify the documents being sought (for example, the Buyer-Seller purchase agreement of July 15, 2006) and cannot simply request categories (for example, all documents related to the transaction) (a score of 0). A shareholder holding 5% of Buyer's shares can request that a government inspector review suspected mismanagement by Mr. James and the CEO without filing suit in court (a score of 1). Shareholders cannot inspect the transaction documents before deciding whether to sue (a score of 0). The standard of proof for civil suits is the same as that for a criminal case (a score of 0). Adding these numbers gives Croatia a score of 4 on the ease of shareholder suits index.		
lclPhone_eust	cost of local calls	Eurostat
Telecommunication services: prices. Local calls (10 minutes)		
longPhone_eust	cost of national long distance calls	Eurostat
Telecommunication services: prices. National long distance calls (10 minutes)		
lossCostCrime.wbes_wbes	cost of theft and vandalism (firms)	Enterprise Surveys
Estimated losses as a result of theft, robbery, vandalism or arson that occurred on establishment's premises calculated as a percentage of annual sales.		
lossExp.wbes_wbes	% of firms experiencing losses due to theft and vandalism	Enterprise Surveys
Percent of firms experiencing losses due to theft, robbery, vandalism or arson that occurred on the establishment's premises		
lossObst.wbes_wbes	% of firms identifying crime, theft and disorder as a major constraint	Enterprise Surveys
Percentage of firms identifying crime, theft and disorder as a "major" or "very severe" obstacle.		
mathAvg_pisa	mean math score for 15-year-old students	Programme for International Student Assessment
mean math score for 15-year-old students		
mathSD_pisa	standard deviation of mean Math score for 15-year-old students	Programme for International Student Assessment
standard deviation of mean Math score for 15-year-old students		
money.property.stolen	Money or property stolen	Gallup
Within the last 12 months, have you had money or property stolen from you or another household member?		
ngoMmbrsLogPop_uia	number of active NGOs	Yearbook of International Associations
number of active NGOs		

VARIABLE	DESCRIPTION	SOURCE
permitsObst.wbes_wbes	licensing and permits as major constraint to business	Enterprise Surveys
Percentage of firms identifying business licensing and permits as “major” or “very severe” obstacle.		
plcyDrctnIncnst_prs	Policy direction is not consistent	World Competitiveness Yearbook
Policy direction is not consistent		
police.interfere.private.life	Police interferences in private life	World Values Survey (WVS)
How frequently do the following happens in your neighborhood (Police or military interfere with people’s private life)? Very frequently - Quite Frequently - Not frequently - Not frequently at all		
prcntIndvdUseIntrnt_itu	Percentage of Individuals using the Internet	International Telecommunication Union
Percentage of Individuals using the Internet		
public.transport.system	Quality of public transport	Gallup
In the city or area where you live, are you satisfied or dissatisfied with the public transportation systems?		
pubSrvcIndp_prs	The public service is not independent from political interference	World Competitiveness Yearbook
The public service is not independent from political interference		
q11_a_qog	risk of consequences if passing information on abuse of power to media	QoG Expert Survey Data II
Public sector employees risk severe negative consequences if they pass on information about abuses of public power to the media.		
q11_b_qog	government documents open to public access	QoG Expert Survey Data II
Government documents and records are open to public access.		
q11_c_qog	abuses of power likely exposed in the media	QoG Expert Survey Data II
Abuses of power within the public sector are likely to be exposed in the media.		
q11_h_qog	misconduct reprimanded by bureaucratic mechanisms	QoG Expert Survey Data II
When found guilty of misconduct, public sector employees are reprimanded by proper bureaucratic mechanisms.		
q2_a_qog	skills and merits important for public sector jobs	QoG Expert Survey Data II
When recruiting public sector employees, the skills and merits of the applicants decide who gets the job (Hardly ever - almost always)		
q2_b_qog	political connections important for public sector jobs	QoG Expert Survey Data II
When recruiting public sector employees, the political connections of the applicants decide who gets the job? (hardly ever - almost always)		
q2_d_qog	public sector hiring via formal exam system	QoG Expert Survey Data II
Public sector employees are hired via a formal examination system.		
q2_g_qog	top political leadership hires and fires senior political officials	QoG Expert Survey Data II
The top political leadership hires and fires senior public officials.		
q2_h_qog	senior public official recruited within ranks	QoG Expert Survey Data II
Senior public officials are recruited from within the ranks of the public sector.		
q4_a_qog	senior officials earn similar to private sector managers	QoG Expert Survey Data II
Senior officials have salaries that are comparable with the salaries of private sector managers with roughly similar training and responsibilities.		
q4_c_qog	public sector salaries linked to performance appraisal	QoG Expert Survey Data II
The salaries of public sector employees are linked to appraisals of their performance.		

VARIABLE	DESCRIPTION	SOURCE
q4_f_qog	separate regulation of terms of employment for public employees	QoG Expert Survey Data II
The terms of employment for public sector employees are regulated by special laws that do not apply to private sector employees.		
q5_k_qog	strive to be efficient	QoG Expert Survey Data II
Public sector employees strive to be efficient.		
q5_l_qog	strive to help citizens	QoG Expert Survey Data II
Public sector employees strive to help citizens.		
q5_m_qog	strive to follow rules	QoG Expert Survey Data II
Public sector employees strive to follow rules.		
q5_n_qog	strive to fulfill party ideology	QoG Expert Survey Data II
Public sector employees strive to fulfill the ideology of the party/parties in government.		
q7_qog	public sector employees act impartially	QoG Expert Survey Data II
Generally speaking, how often would you say that public sector employees today, in your chosen country, act impartially when deciding how to implement a policy in an individual case? 1=hardly ever, 7=almost always		
q8_g_qog	kickbacks influence public procurement	QoG Expert Survey Data II
Firms that provide the most favorable kickbacks to senior officials are awarded public procurement contracts in favor of firms making the lowest bid.		
quality.of.air	Quality of air	Gallup
In the city or area where you live, are you satisfied or dissatisfied with the quality of air?		
quality.of.healthcare	Quality of healthcare	Gallup
In the city or area where you live, are you satisfied or dissatisfied with the availability of quality healthcare?		
quality.of.water	Quality of water	Gallup
In the city or area where you live, are you satisfied or dissatisfied with the quality of water?		
readAvg_pisa	mean reading score for 15-year-old students	Programme for International Student Assessment
mean reading score for 15-year-old students		
readSD_pisa	standard deviation of mean reading score for 15-year-old students	Programme for International Student Assessment
standard deviation of mean reading score for 15-year-old students		
rgstrprpty_wbdb	Registering Property: Procedures (number)	Doing Business
Registering Property: Procedures (number). A procedure is defined as any interaction of the buyer or the seller, their agents (if an agent is legally or in practice required) or the property with external parties, including government agencies, inspectors, notaries and lawyers. Interactions between company officers and employees are not considered. All procedures that are legally or in practice required for registering property are recorded, even if they may be avoided in exceptional cases (table 21.6). It is assumed that the buyer follows the fastest legal option available and used by the majority of property owners. Although the buyer may use lawyers or other professionals where necessary in the registration process, it is assumed that the buyer does not employ an outside facilitator in the registration process unless legally or in practice required to do so.		
roads.and.highways	satisfaction with roads and highways	Gallup
In the city or area where you live, are you satisfied or dissatisfied with the roads and highways?		
robberies. in.neighborhood	Robberies in neighborhood	World Values Survey (WVS)
How frequently do the following happens in your neighborhood (robberies)? Very frequently - Quite Frequently - Not frequently - Not frequently at all		

VARIABLE	DESCRIPTION	SOURCE
safe.walking.alone	Safety of walking alone	Gallup
Do you feel safe walking alone at night in the city or area where you live?		
sani_epi	Access to Sanitation	Environmental Performance Index
Percentage of population with access to improved sanitation		
sciAvg_pisa	mean science score for 15-year-old students	Programme for International Student Assessment
mean science score for 15-year-old students		
sciSD_pisa	standard deviation of mean science score for 15-year-old students	Programme for International Student Assessment
standard deviation of mean science score for 15-year-old students		
sco_rwb.wiki	Freedom of the press	World Press Freedom Index
Freedom of the press		
secCostCrime.wbes_wbes	security costs (firms)	Enterprise Surveys
Average security costs as a percentage of total annual sales for all firms.		
security	personal security	World Values Survey (WVS)
Which of the following things have you done for reasons of security (Didn't carry much money, preferred not to go out at night, carried a knife, gun or a weapon) Yes/No		
shShdwEcon_schn	size of shadow economy	Shadow Economies All over the World. New Estimates for 162 Countries from 1999 to 2007.
Share of the shadow economy as a percentage of GDP		
signing.petition	signing a petition	World Values Survey, European Values Study, Asian Barometer, International Social Survey Programme, LatinoBarometer
1. Tell me for each of these how often you have done it in the last year: Signing a petition 2. Now I'd like you to look at this card. I'm going to read out some different forms of political action that people can take, and I'd like you to tell me, for each one, whether you have actually done any of these things, whether you might do it or would never, under any circumstances, do it.: Signing a petition 3. Signing a petition to improve conditions 4. Here are some different forms of political and social action that people can take. Please indicate, for each one, whether you have done any of these things in the past year, whether you have done it in the more distant past, whether you have not done it but might do it or have not done it and would never, under any circumstances, do it. Signed a petition 5. I am going to read out a variety of political activities which people may engage in. I would like you to tell me, for each one, if you have ever done any of them, if you would ever do any of them, or if you would never do any of them? Signing a petition.		
startbusiness_wbdb	procedures to start a business	Doing Business
Starting a Business: Procedures (number). A procedure is defined as any interaction of the company founders with external parties (for example, government agencies, lawyers, auditors or notaries). Interactions between company founders or company officers and employees are not counted as procedures. Procedures that must be completed in the same building but in different offices or at different counters are counted separately. If founders have to visit the same office several times for different sequential procedures, each is counted separately. The founders are assumed to complete all procedures themselves, without middlemen, facilitators, accountants or lawyers, unless the use of such a third party is mandated by law, or solicited by the majority of entrepreneurs. If the services of professionals are required, procedures conducted by such professionals on behalf of the company are counted separately. Each electronic procedure is counted separately. If 2 procedures can be completed through the same website but require separate filings, they are counted as 2 separate procedures.		

VARIABLE	DESCRIPTION	SOURCE
startbusinessdays_wbdb	days to start a business	Doing Business
Starting a Business: Time (days). Time is recorded in calendar days. The measure captures the median duration that incorporation lawyers indicate is necessary in practice to complete a procedure with minimum follow-up with government agencies and no extra payments. It is assumed that the minimum time required for each procedure is 1 day, except for procedures that can be fully completed online, for which the time required is recorded as half a day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days), again with the exception of procedures that can be fully completed online. A procedure is considered completed once the company has received the final incorporation document, such as the company registration certificate or tax number. If a procedure can be accelerated for an additional cost, the fastest procedure is chosen if that option is more beneficial to the economy's ranking. It is assumed that the entrepreneur does not waste time and commits to completing each remaining procedure without delay. The time that the entrepreneur spends on gathering information is ignored. It is assumed that the entrepreneur is aware of all entry requirements and their sequence from the beginning but has had no prior contact with any of the officials.		
statCap_wbst	Statistical Capacity Indicator Overall Score	Statistical Capacity Indicator
Statistical Capacity Indicator provides an overview of the statistical capacity of over 140 developing countries. It is based on a diagnostic framework developed with a view to assessing the capacity of national statistical systems using metadata information generally available for most countries, and monitoring progress in statistical capacity building over time. The framework has three dimensions: statistical methodology; source data; and periodicity and timeliness. For each dimension, a country is scored against specific criteria, using information available from the World Bank, IMF, UN, UNESCO, and WHO. A composite score for each dimension and an overall score combining all three dimensions are derived for each country on a scale of 0- 100. A score of 100 indicates that the country meets all the criteria.		
sub4.4_wjp	Freedom of opinion and expression is effectively guaranteed	Rule of Law Index
Freedom of opinion and expression is effectively guaranteed		
sub6.4_wjp	Due process is respected in administrative proceedings	Rule of Law Index
Due process is respected in administrative proceedings		
sub7.1_wjp	access to affordable civil justice	Rule of Law Index
People have access to affordable civil justice		
sub7.2_wjp	Civil justice is free of discrimination	Rule of Law Index
Civil justice is free of discrimination		
sub7.3_wjp	Civil justice is free of corruption	Rule of Law Index
Civil justice is free of corruption		
sub7.4_wjp	Civil justice is free of improper government influence	Rule of Law Index
Civil justice is free of improper government influence		
sub7.5_wjp	Civil justice is not subject to unreasonable delays	Rule of Law Index
Civil justice is not subject to unreasonable delays		
sub7.6_wjp	Civil justice is effectively enforced	Rule of Law Index
Civil justice is effectively enforced		
sub7.7_wjp	ADRs are accessible, impartial and effective	Rule of Law Index
ADRs are accessible, impartial and effective		
sub8.1_wjp	Criminal investigation system is effective	Rule of Law Index
Criminal investigation system is effective		
sub8.2_wjp	Criminal adjudication system is timely and effective	Rule of Law Index
Criminal adjudication system is timely and effective		

VARIABLE	DESCRIPTION	SOURCE
sub8.3_wjp	Correctional system is effective in reducing criminal behavior	Rule of Law Index
Correctional system is effective in reducing criminal behavior		
sub8.4_wjp	Criminal system is free of discrimination	Rule of Law Index
Criminal system is free of discrimination		
sub8.5_wjp	Criminal system is free of corruption	Rule of Law Index
Criminal system is free of corruption		
sub8.6_wjp	Criminal system is free of improper government influence	Rule of Law Index
Criminal system is free of improper government influence		
sub8.7_wjp	Due process of law and rights of the accused	Rule of Law Index
Due process of law and rights of the accused		
taxConstraint.wbes_wbes	Percent of firms identifying tax administration as major constraint	Enterprise Surveys
Percentage of firms identifying tax administration as a “major” or “very severe” obstacle.		
timeDealReg.wbes_ wbes	management time spent in dealing with government regulation (firms)	Enterprise Surveys
Average percentage of senior management’s time that is spent in a typical week dealing with requirements imposed by government regulations (e.g. taxes, customs, labor regulations, licensing and registration), including dealings with officials, completing forms, et cetera.		
TOTAL_eust	total crimes	Eurostat
Crimes recorded by the police by offence category: Total (homicide, violent crime, robbery, burglary)		
treatment.officials. depends.contact	equal treatment by public officials	ISSP
Do you think that the treatment people get from public officials in [Rs Country] depends on who they know?		
trust	trust in society	World Values Survey
Most people can be trusted 1:Most people can be trusted, 2:Can’t be too careful		
trust.press	confidence in the press	World Values Survey
Confidence: The Press - 1:A great deal, 2:Quite a lot, 3:Not very much, 4:None at all		
trust.TV	confidence in tv	World Values Survey
Confidence: Television - 1:A great deal, 2:Quite a lot, 3:Not very much, 4:None at all		
victim	victim of a crime during the past year	World Values Survey
Respondent or respondent’s family was victim of a crime during the past year		
water_epi	Access to Drinking Water	Environmental Performance Index
Percentage of population with access to improved drinking water source		
whistleblowing_acai	whistleblowing protection	Anticorruption Authorities Initiative
Are employed protected by law from recrimination or other negative consequences when reporting corruption (whistleblowing)?		
work.for.party	working for political party	European Social Survey, LatinoBarometer
1. There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you worked in a political party or action group? 2. How frequently do you do each of the following things? Work for a political party or candidate.		

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