Statistical Appendix 1 for Chapter 2 of World Happiness Report 2019, by John F. Helliwell, Haifang Huang and Shun Wang

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1 Data Sources and Variable Definitions

- Happiness score or subjective well-being (variable name ladder): The survey measure of SWB is from the January, 2019 release of the Gallup World Poll (GWP) covering years from 2005 to 2018, as well the special GWP surveys for four countries in 2018. Unless stated otherwise, it is the national average response to the question of life evaluations. The English wording of the question is "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?" This measure is also referred to as Cantril life ladder, or just life ladder in our analysis.
- The statistics of GDP per capita (variable name gdp) in purchasing power parity (PPP) at constant 2011 international dollar prices are from the November 14, 2018 update of the World Development Indicators (WDI). The GDP figures for Taiwan, up to 2014, are from the Penn World Table 9. A few countries are missing the GDP numbers in the WDI release but were present in earlier releases. We use the numbers from the earlier release, after adjusting their levels by a factor of 1.17 to take into account changes in the implied prices when switching from the PPP 2005 prices used in the earlier release to the PPP 2011 prices used in the latest release. The factor of 1.17 is the average ratio derived by dividing the US GDP per capita under the 2011 prices with their counterparts under the 2005 prices.
 - GDP per capita in 2018 are not yet available as of December 2018. We extend the GDP-per-capita time series from 2017 to 2018 using country-specific forecasts of real GDP growth in 2018 first from the OECD Economic Outlook No 104 (Edition November 2018) and then, if missing, forecasts from World Bank's Global Economic Prospects (Last Updated:

- 06/07/2018). The GDP growth forecasts are adjusted for population growth with the subtraction of 2016-17 population growth as the projected 2017-18 growth.
- Healthy Life Expectancy (HLE). Healthy life expectancies at birth are based on the data extracted from the World Health Organization's (WHO) Global Health Observatory data repository. The data at the source are available for the years 2000, 2005, 2010, 2015 and 2016. To match this report's sample period (2005-2018), interpolation and extrapolation are used. A few territories/countries are not covered in the WHO data. For Hong Kong, we calculate the health life-to-life expectancy ratio using estimates reported in "Healthy life expectancy in Hong Kong Special Administrative Region of China," by C.K. Law, & P.S.F. Yip, published at the Bulletin of the World Health Organization, 2003, 81 (1). For Swaziland, Taiwan and the Palestinian Territories we use data from "Healthy life expectancy for 187 countries, 1990 - 2010: a systematic analysis for the Global Burden Disease Study 2010," by Joshua A Salomon et al, The Lancet, Volume 380, Issue 9859. For Kosovo, we adjust its time series of life expectancy (available in the World Development Indicators) to a time series of health life expectancy by assuming that its health life-to-life expectancy ratio equals to the world average.
- Social support (or having someone to count on in times of trouble) is the national average of the binary responses (either 0 or 1) to the GWP question "If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?"
- Freedom to make life choices is the national average of responses to the GWP question "Are you satisfied or dissatisfied with your freedom to choose what you do with your life?"
- Generosity is the residual of regressing national average of response to the GWP question "Have you donated money to a charity in the past month?" on GDP per capita.
- Corruption Perception: The measure is the national average of the survey responses to two questions in the GWP: "Is corruption widespread throughout the government or not" and "Is corruption widespread within businesses or not?" The overall perception is just the average of the two 0-or-1 responses. In case the perception of government corruption is missing, we use the perception of business corruption as the overall perception. The corruption perception at the national level is just the average response of the overall perception at the individual level.
- Positive affect is defined as the average of three positive affect measures in GWP: happiness, laugh and enjoyment in the Gallup World Poll waves 3-7. These measures are the responses to the following three questions, respectively:

"Did you experience the following feelings during A LOT OF THE DAY yesterday? How about Happiness?", "Did you smile or laugh a lot yesterday?", and "Did you experience the following feelings during A LOT OF THE DAY yesterday? How about Enjoyment?" Waves 3-7 cover years 2008 to 2012 and a small number of countries in 2013. For waves 1-2 and those from wave 8 on, positive affect is defined as the average of laugh and enjoyment only, due to the limited availability of happiness.

- Negative affect is defined as the average of three negative affect measures in GWP. They are worry, sadness and anger, respectively the responses to "Did you experience the following feelings during A LOT OF THE DAY yesterday? How about Worry?", "Did you experience the following feelings during A LOT OF THE DAY yesterday? How about Sadness?", and "Did you experience the following feelings during A LOT OF THE DAY yesterday? How about Anger?"
- Inequality/distribution statistics of happiness scores by WP5-year (variables names giniLadder and more) from the GWP release. WP5 is GWP's coding of countries, including some sub-country territories such as Hong Kong. The statistics are named giniLadder, p95Ladder, p90Ladder, p75Ladder, p50Ladder, p25Ladder, p10Ladder, p05Ladder, maxLadder, minLadder, respectively the gini score, the various percentiles, the maximum and the minimum. They are all derived from the STATA command ineqdec0 using observations in an individual country/territory in a given survey year with sample weights. According to Stephen P. Jenkins (May 2008, STATA Help), the command ineqdec0 "estimate[s] a range of inequality and related indices" using unit record or 'micro' level data, and that the calculations do not exclude observations whose value is equal to zero.
- Alternative measures of inequality in happiness scores by wp5-year (variable names sdLadder and cvLadder). These extra measures are sdLadder "Standard deviation of ladder by country-year" and cvLadder "Standard deviation/Mean of ladder by country-year".
- Gini of household income reported in the GWP (variable name giniIncGallup). The income variable is described in Gallup's "WORLDWIDE RESEARCH METHODOLOGY AND CODEBOOK" (Updated July 2015) as "Household Income International Dollars [...] To calculate income, respondents are asked to report their household income in local currency. Those respondents who have difficulty answering the question are presented a set of ranges in local currency and are asked which group they fall into. Income variables are created by converting local currency to International Dollars (ID) using purchasing power parity (PPP) ratios." The gini measure is generated using STATA command ineqdec0 by WP5-year with sample weights.
- GINI index from the World Bank (variable name giniIncWB and giniIncW-Bavg) from the World Development Indicators. The variable labeled at the

source as "GINI index (World Bank estimate)", series code "SI.POV.GINI". According to the source, the data source is "World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments." The variable giniIncWB is an unbalanced panel of yearly index. The data availability is patchy at the yearly frequency. The variable giniIncWBavg is the average of giniIncWB in the period 2000-2016. The average does not imply that a country has the gini index in all years in that period. In fact, most do not.

- Variables in the expanded data set: "Most people can be trusted" from the GWP. The question's English wording is "Generally speaking, would you say that most people can be trusted or that you have to be careful in dealing with people?" This indicator has a limited coverage.
- Variables in the expanded data set: "Most people can be trusted" from the 6-wave World Value Surveys. The question's English wording is "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The measure is defined as the percentage of respondents saying that most people can be trusted, excluding those who did not provide an answer.

2 Coverage, Summary Statistics and Regression Tables

WP5 is GWP's coding of countries including some sub-country territories such as Hong Kong. Not all the countries and territories appear in all the years. Our analysis does not cover all of the country/territories that have valid happiness scores. Tables 1-3 show the WP5-year pairs that are covered.

The 2016-2018 ranking of happiness scores includes 153 countries/territories that have the happiness scores in the 2016-2018 period, plus 3 country/territory that has the happiness score in 2015 but not in 2016-18; a later table has the list of the country/countries.

To appear in regression analysis that uses data from outside the GWP survey, a WP5-year needs to have the necessary external information (GDP, healthy life expectancy, etc). The regression analysis thus does not necessarily cover all of the countries/territories in the GWP. Nor does it necessarily cover all the countries/territories that are ranked by their happiness scores in this report. The underlying principle is that we always use the largest available sample. For different kind of analysis/ranking, the largest available samples can be different.

Regions: Some of the analysis includes dummy indicator for regions, namely Western Europe, Central and Eastern Europe, Commonwealth of Independent States, Southeast Asia, South Asia, East Asia, Latin America and Caribbean, North America and ANZ, Middle East and North Africa, and Sub-Saharan Africa. A later set of

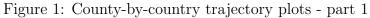
3 Imputed Missing Values in Our Exercise of Explaining Ladder Scores with Six Factors

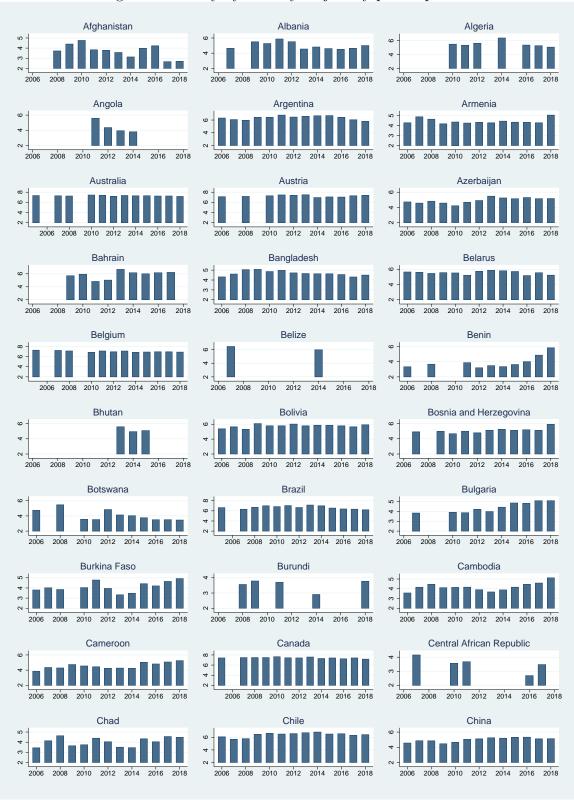
We do not make use of any imputed missing values in any of our headline results including the happiness rankings and all the regression outputs. The only place where we make use of imputation is when we try to decompose a country's average ladder score into components explained by six hypothesized underlying determinants (GDP) per person, healthy life expectancy, social support, perceived freedom to make life choice, generosity and perception of corruption). A small number of countries have missing values in one or more of these factors. The most prominent is about the perception of corruption in businesses and governments. In several countries, the relevant questions were not asked in the Gallup World Poll. For these countries we impute the missing values using the "control of corruption" indicator from the Worldwide Governance Indicators (WGI) project. Specifically, the imputed value is calculated as the predicted value using estimates from a model that regresses Gallup World Poll's perception of corruption on WGI's control of corruption. In all, 8 countries have the measure of corruption perception imputed in this way. In a few cases, countries are missing one or more of the happiness factors over the survey period 2016-2018, but the information can be found for earlier years. In this case we use those earlier information as if they are the 2016-2018 information. There is a limit of 3 years for how far back we go in search of those missing values. After these imputations, Somalia and Taiwan are still missing GDP per capita for the period 2016-2018; we use the most recent PPP statistics of GDP per capita from The World Factbook. Northern Cyprus is missing GDP per capita and healthy life expectancy; we use the statistics of Cyprus instead. Swaziland, Taiwan and the Palestinian Territories are still missing the information of healthy life expectancy. We use their most-recent year (2010) information from the Lancet article discussed in "Data Sources". Finally Qatar is missing information on social support, freedom to make life choices, and generosity. We use Qatar's 2011-212 averages as if they are 2016-2018 averages.

| Country/territory (ID) | 20052006200720082009201020112012201320142015201620172018 |
|--------------------------------|---|
| United States (1) | 1001122510041003100510082094100520481019103210131004 |
| Egypt (2) | $999 \qquad 102411052112205352964186114910001000100010001000$ |
| Morocco (3) | $1006100130001007 \qquad 2050100810061001$ |
| Lebanon (4) | $996\ 1000 \qquad 10002010202720072013100010001000100010001000$ |
| Saudi Arabia (5) | $1004 \qquad 100611502052203820221077203620351012100010021003$ |
| Jordan (6) | $1000 \qquad 101610072016200020002000100010001000100010121002$ |
| Syria (7) | $120921002035204120431022 \qquad 1002$ |
| Turkey (8) | $995 \qquad 10011004999 \ 100010012000100020031002100110001000$ |
| Pakistan (9) | $1001 \qquad 150224843122103010003012100010001000100016001000$ |
| Indonesia (10) | 118010001050108010801000300010001000100010001000100 |
| Bangladesh (11) | 10481200100010001000100030001000100010001000 |
| United Kingdom (12) | 1037 120410011002100092391340\(\delta 50\) 200010001000100010001 |
| France (13) | 10021220 10061000100410012005751 20001000100010001000 |
| Germany (14) | 1001 122130162010100791051326 9 51 20141000200010001000 |
| Netherlands (15) | 1000 10001000 100110001000751 20021003100010011002 1003 10221002 100310021001100620041037100010011011 |
| Belgium (16) Spain (17) | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| Italy (18) | 1002 1008100810051000100520031004200010001000100010001000100010001000 |
| Poland (19) | 1002 1003100310031003100320071004200010001000100010001000100010001000 |
| Hungary (20) | 1025 1010 100810081014100410191003100010001000 |
| Czech Republic (21) | 1001 1072 20821000100510011008100010001000 |
| Romania (22) | 1022 1000 10001000100810001000998 1001100110011002 |
| Sweden (23) | 1000 100110001002100210061000750 2001100010001001 |
| Greece (24) | 1002 1000 10001000100010031000100010001000 |
| Denmark (25) | 1004 100910011000100010051001753 20021005100010001000 |
| Iran (26) | $1300 \qquad 10041040 \qquad \qquad 10033507100020091001100010001002$ |
| Hong Kong S.A.R. of China (27) | 800 751 755 756 10281006 2017 10051007 |
| Singapore (28) | $109510002551100510011000 \qquad 100010001000100010001000$ |
| Japan (29) | $1000 \qquad 115030001000100010002000100120061003100310021003$ |
| China (30) | 3730373337123833415142209413424446964265437341413649 |
| India (31) | $2100318620003010600035181008 \\ \bullet 54030003000300030003000$ |
| Venezuela (32) | 10001000 100010001000100010001000100010 |
| Brazil (33) | 1029 103810321031104310421002200610071004100110001000 |
| Mexico (34) | 1007 999 10001000100010002000100010171031100010001034 |
| Nigeria (35) Kenya (36) | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| Tanzania (37) | 100010001220010001000100010001000100010 |
| Israel (38) | 100210011001100010001000100010001000100 |
| Palestinian Territories (39) | 1000100010002014200020002000100010001000 |
| Ghana (40) | 10000 |
| Uganda (41) | 1000100010001000100010001000100010001000100010001 |
| Benin (42) | 1000 1000 1000100010001000100010001000 |
| Madagascar (43) | 1000 1000 100010001008100810001000100010 |
| Malawi (44) | 10001000 1000 1000100010001000100010001 |
| South Africa (45) | 100110001000100010001000200010001000100 |
| Canada (46) | $1355 \qquad 101010051011100710132003102120251011101610051009$ |
| Australia (47) | $1000 \qquad 12051005 \qquad 100010101002100220021001100410031001$ |
| Philippines (48) | 120010001000100010001000200010001000100 |
| Sri Lanka (49) | $1033100010001000103010002031103010621062 \qquad 11041109$ |
| Vietnam (50) | 1023101510161008100010002000101710001000103910021012 |
| Thailand (51) | 1410100610381019100010002000100010001000100010001000 |
| Cambodia (52) | 1000100010241000100010001000100010001000 |
| Laos (53) | 10011000 6 000 10001000 10002504 |
| Myanmar (54) | 1020102010201020102016001000 |
| New Zealand (55) | 1028750 750 750 10001008500 20011007100410011001 |

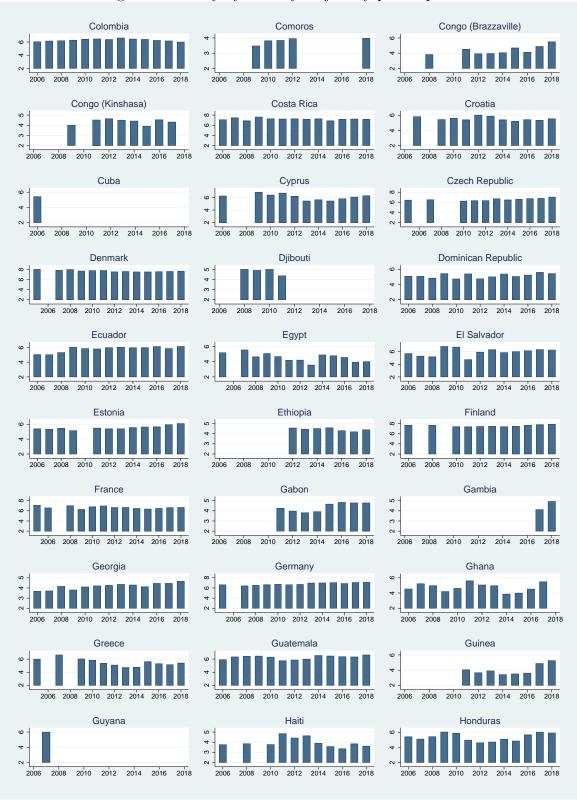
| Country/territory (ID) | 20052006200720082009201020112012201320142015201620172018 |
|---|---|
| Angola (56) | 1000100010001000 |
| Botswana (57) | 1000 1000 10001000100010001000100010 |
| Ethiopia (60) | 1500100010041000100010001000 |
| Mali (61) | $1000 \qquad 100010001000100010001000100010001$ |
| Mauritania (62) | 100010001984200020001000100810001000100010001000 |
| Mozambique (63) | 100010001000 1000 1000 10001000 |
| Niger (64) | 100010001000100010001000100010081008100 |
| Rwanda (65) | 1504 	 10001000 	 10001000100010001000100010 |
| Senegal (66) | 10001000100010001000100010001000100010 |
| Zambia (67) | $1001100010001000 \qquad 100010001000100010001$ |
| South Korea (68) | 1100100010001000100010012000100020001000100010001015 |
| Taiwan Province of China (69) | $1002 \qquad 1000 \qquad 100010011000100020001000100010001000$ |
| Afghanistan (70) | 101020001000100020001000100010001000100 |
| Belarus (71) | 1092111410911077101310071052103210361034103910531061 |
| Georgia (72) | 100010001080100010001000100010001000100 |
| Kazakhstan (73) | 10001000100010001000100010001000100010 |
| Kyrgyzstan (74) | 10001000100010001000100010001000100010 |
| Moldova (75) | 10001000100010001000100010001000100010 |
| Russia (76) | 2011294920192042400020003000200020002000200020002000 |
| Ukraine (77) | 110210661074108110001000100010001000100010001000100 |
| Burkina Faso (78) | $100010001000 \qquad 100010001000100810001000100010001000$ |
| Cameroon (79) | 100010001000100012001000100010001000100 |
| Sierra Leone (80) | 100010001000 10001000 100810081000100010001000 |
| Zimbabwe (81) | 10001000100010001000100010001000100010 |
| Costa Rica (82) | 1002100210001000100610001000100010001000 |
| Albania (83) | 981 10001000100610291035999 1000999 10001000 100020012027 1002 100110161000 |
| Algeria (84) Argentina (87) | 10001000100010001000100010001000100010 |
| Armenia (88) | 1000100010001000100010001000100 |
| Austria (89) | 1004 1001 2000 1004 1001 1000 1000 1000 |
| Azerbaijan (90) | 10001000100010001000100010001000100010 |
| Bahrain (92) | 212820322010100010021005200410101064 |
| Belize (94) | 502 |
| Bhutan (95) | 100010201020 |
| Bolivia (96) | 100010001003100010001000100010001000100 |
| Bosnia and Herzegovina (97) | $2002 \qquad 1002100010091005101010011000100010001000$ |
| Bulgaria (99) | $1003 \qquad 200010061000100010001000100010001001$ |
| Burundi (100) | 10001000 1000 1000 1000 |
| Central African Republic (102) | 1000 10001000 10001000 |
| Chad (103) | 10001000100010001000100010001000100010 |
| Chile (104) | 1007102311081009100710091003100110321040100810401000 |
| Colombia (105) | 10001000100010001000100010001000100010 |
| Comoros (106) | $\begin{array}{ccc} 2000200020001000 & 1000 \\ 1000 & 10001000100010001000100010$ |
| Congo (Kinshasa) (107) Congo Brazzaville (108) | 1000 10 |
| Croatia (109) | $1000 \qquad 1000 300 1000$ |
| Cuba (110) | 1000 |
| Cyprus (111) | 1000 502 10051005500 500 20001029100610081026 |
| Djibouti (112) | 1000 2000 1000 1000 |
| Dominican Republic (114) | 10001000100010001000100010001000100010 |
| Ecuador (115) | 10671061100110001000100310031000100010001000 |
| El Salvador (116) | 100010011000100610011000100010001000100 |
| Estonia (119) | 100310016(71 608 10071004101010001000100010001000 |
| Finland (121) | $1010 \qquad 1005 \qquad 100010001000750 \ \ 20011000100010001000$ |
| Gabon (122) | 10001000100810081000100010001000 |
| Guatemala (124) | 1021100010001015101410001000100010001000100 |

| Table 3: Number | of ladder (WP16) observations for WP5-years - Part 3 | |
|--------------------------------|---|---------------|
| Country/territory (ID) | 200520062007200820092010201120122013201420152016 | 2017 2018 |
| Guinea (125) | 1000 1000 1008 1000 1000 1000 | 1000 1000 |
| Guyana (127) | 501 | |
| Haiti (128) | 505 500 504 504 504 504 504 504 504 | |
| Honduras (129) | 10001000100010021000100210001000 | |
| Iceland (130) | 502 	 1002 502 	 596 529 | |
| Iraq (131) | 990 2001 2000 2000 2000 1003 2010 1009 1011 | |
| Ireland (132) | 1000 1001 500 1001 1000 1000 1000 2000 1000 1 | |
| Ivory Coast (134) | 1000 1008 1000 1000 1000 | |
| Jamaica (135) | 543 506 504 504 | 504 |
| Kuwait (137) | 1000 2002 2004 2000 1000 1008 1013 2000 1000 | |
| Latvia (138) | 1000 1017 513 515 1006 1001 1000 1002 1001 1019 | |
| Lesotho (139) | | 1000 |
| Liberia (140) | 10001000 1000 100010001000 | |
| Libya (141) | | 1007 1004 |
| Lithuania (143) | 1015 1007 506 500 1001 1000 1000 1000 1000 1000 1 | |
| Luxembourg (144) | 500 1002 1000 1001 500 2000 1000 1000 | |
| Macedonia (145) | $1042 \qquad 10081000101810251020100010241024$ | |
| Malaysia (146) | 10121233100010111000100010001000 | 1000 |
| Malta (148) | 508 1008 1004 1004 500 2013 1002 1011 | |
| Mauritius (150) | | 1000 1000 |
| Mongolia (153) | 1000 1000 | |
| Montenegro (154) | 834 1003 1000 1000 1000 1000 1000 1000 10 | |
| Namibia (155) | 1000 1000 | 1000 1005 |
| Nepal (157) | 10021000100310021000100020001050105010001000 | |
| Nicaragua (158) | 1001 1000 1000 1012 1000 1003 1000 1000 | |
| Norway (160) | 1001 1000 1004 2000 1005 2000 | 1000 1000 |
| Oman (161) | 2016 | 10001000 |
| Panama (163) | 1005 1000 1004 1018 1000 1000 1001 1000 1000 | |
| Paraguay (164) | 1001 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 | |
| Peru (165) | 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 | |
| Portugal (166) | 1007 1002 2002 1000 1001 1001 2020 1021 1008 | , 1000 1003 |
| Puerto Rico (167) | 500 500 2028 1000 1032 2000 1000 | |
| Qatar (168) | | 1000 1000 |
| Serbia (173) Slovakia (175) | 1556 1008 1000 1001 1023 1030 1000 1000 1000 1018 1007 1012 1007 1004 1000 1000 1000 | |
| Slovenia (176) | 1009 500 1002 1001 1000 1001 2020 1002 1000 | |
| Somalia (178) | 1009 300 1002 1001 1000 1001 2020 1002 1000 | |
| Sudan (181) | 1784 1808 2000 1000 1000 1191 | |
| Suriname (182) | 504 | |
| Swaziland (183) | 1000 | 1000 |
| Switzerland (184) | 1000 1003 1000 2010 501 1000 | |
| Tajikistan (185) | 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 | |
| The Gambia (186) | 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 | $1000 \ 1000$ |
| Togo (187) | 1000 1000 1000 1000 1000 1000 1000 | |
| Trinidad & Tobago (189) | 508 502 504 504 | 504 |
| Tunisia (190) | 1006 2085 2034 2053 1053 1056 1000 1001 | |
| Turkmenistan (191) | 1000 1000 1000 1000 1000 1000 1000 | |
| United Arab Emirates (193) | 1013 2054 2066 2036 2016 1000 1002 2903 1855 | |
| Uruguay (194) | 1004 1004 1005 1000 1000 1000 1009 1000 1000 1000 | |
| Uzbekistan (195) | 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 | |
| Yemen (197) | 1000 2000 2000 2000 1000 1000 1000 1000 | |
| Kosovo (198) | 1046 1047 1000 1017 1047 1024 1000 1001 1000 1000 | |
| Somaliland region (199) | 82000 2000 2000 1000 | 1000 1000 |
| Northern Cyprus (202) | 500 502 2004 1000 1000 | 1000 |
| South Sudan (205) | 1000 1000 1000 | |
| | 1000 1000 1000 | |

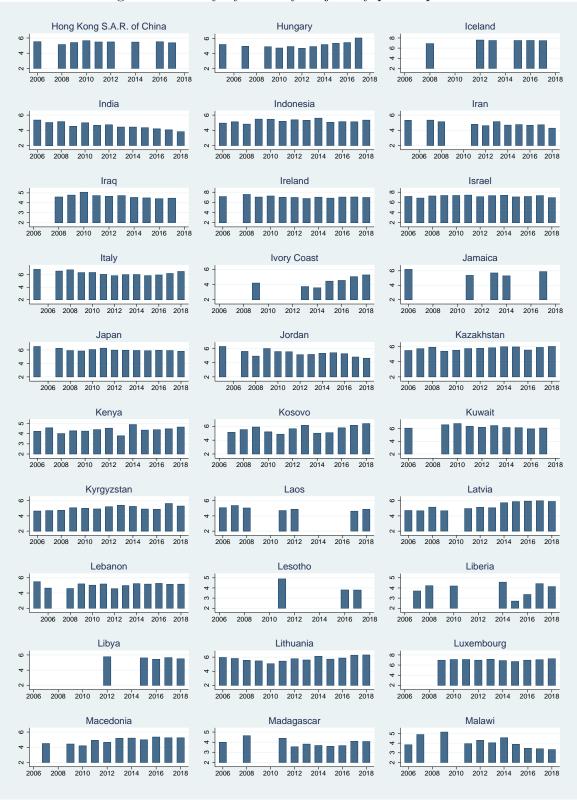




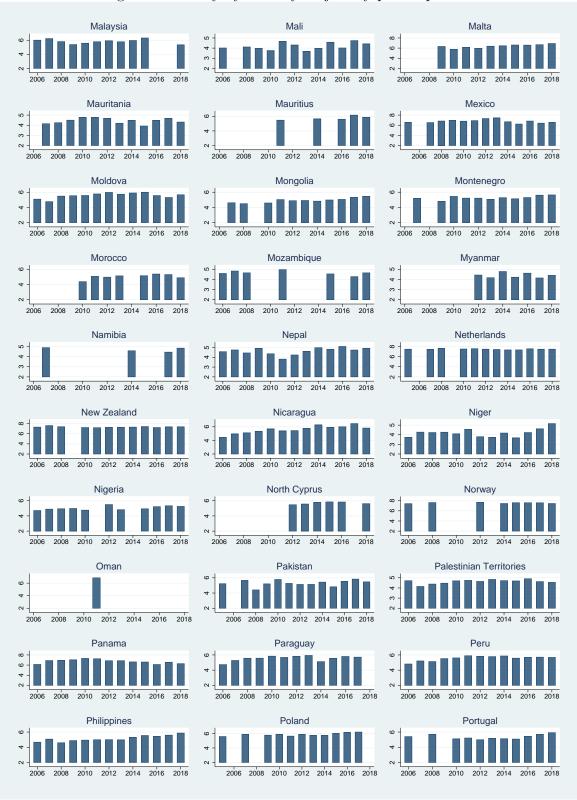


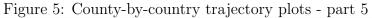


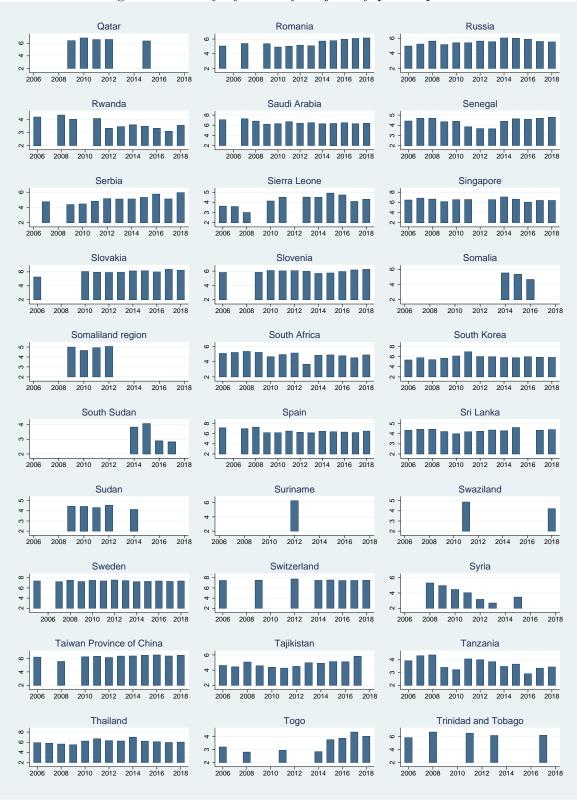












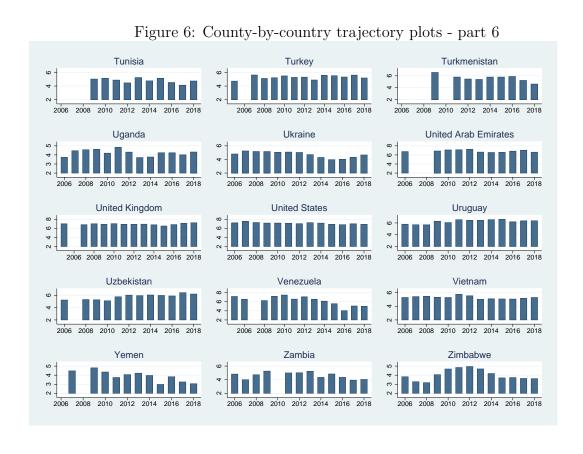


Table 4: Summary statistics for country-year observations with valid happiness scores - Fullest sample $_$

| | Mean | Std. Dev. | Min. | Max. | N |
|----------------------------------|-------|-----------|-------|-------|------|
| Life Ladder | 5.44 | 1.12 | 2.66 | 8.02 | 1704 |
| Positive affect | 0.71 | 0.11 | 0.36 | 0.94 | 1685 |
| Negative affect | 0.27 | 0.08 | 0.08 | 0.70 | 1691 |
| Log GDP per capita | 9.22 | 1.19 | 6.46 | 11.77 | 1676 |
| Social support | 0.81 | 0.12 | 0.29 | 0.99 | 1691 |
| Healthy life expectancy at birth | 63.11 | 7.58 | 32.3 | 76.8 | 1676 |
| Freedom to make life choices | 0.73 | 0.14 | 0.26 | 0.99 | 1675 |
| Generosity | 0 | 0.16 | -0.34 | 0.68 | 1622 |
| Perceptions of corruption | 0.75 | 0.19 | 0.04 | 0.98 | 1608 |

Table 5: Summary statistics for country-year observations with valid happiness scores - Period from 2005 to 2008

| Variable | Mean | Std. Dev. | Min. | Max. | $\overline{\mathbf{N}}$ |
|----------------------------------|-------|-----------|-------|-------|-------------------------|
| Life Ladder | 5.44 | 1.13 | 2.81 | 8.02 | 328 |
| Positive affect | 0.71 | 0.1 | 0.36 | 0.89 | 324 |
| Negative affect | 0.25 | 0.07 | 0.09 | 0.47 | 326 |
| Log GDP per capita | 9.1 | 1.21 | 6.49 | 11.47 | 328 |
| Social support | 0.81 | 0.13 | 0.29 | 0.98 | 326 |
| Healthy life expectancy at birth | 61.54 | 8.43 | 40.3 | 74.28 | 328 |
| Freedom to make life choices | 0.71 | 0.15 | 0.26 | 0.97 | 319 |
| Generosity | 0.01 | 0.17 | -0.32 | 0.48 | 293 |
| Perceptions of corruption | 0.77 | 0.18 | 0.06 | 0.98 | 313 |

Table 6: Summary statistics for country-year observations with valid happiness scores

- Period from 2008 to 2010

| Variable | Mean | Std. Dev. | Min. | Max. | \mathbf{N} |
|----------------------------------|------|-----------|-------|-------|--------------|
| Life Ladder | 5.46 | 1.11 | 2.81 | 7.97 | 348 |
| Positive affect | 0.71 | 0.11 | 0.36 | 0.9 | 341 |
| Negative affect | 0.24 | 0.08 | 0.08 | 0.47 | 343 |
| Log GDP per capita | 9.16 | 1.2 | 6.46 | 11.74 | 346 |
| Social support | 0.81 | 0.12 | 0.29 | 0.98 | 343 |
| Healthy life expectancy at birth | 62.4 | 7.98 | 32.3 | 74.83 | 346 |
| Freedom to make life choices | 0.70 | 0.15 | 0.26 | 0.97 | 341 |
| Generosity | 0 | 0.16 | -0.32 | 0.53 | 345 |
| Perceptions of corruption | 0.76 | 0.19 | 0.04 | 0.98 | 337 |

 ${\it Table 7: Summary statistics for country-year observations with valid happiness scores}$

- Perio<u>d from 2016 to 2018</u>

| Variable | Mean | Std. Dev. | Min. | Max. | N |
|----------------------------------|-------|-----------|-------|-------|-----|
| Life Ladder | 5.45 | 1.13 | 2.66 | 7.86 | 425 |
| Positive affect | 0.71 | 0.11 | 0.42 | 0.92 | 423 |
| Negative affect | 0.29 | 0.09 | 0.09 | 0.6 | 423 |
| Log GDP per capita | 9.27 | 1.2 | 6.47 | 11.46 | 409 |
| Social support | 0.81 | 0.12 | 0.29 | 0.98 | 424 |
| Healthy life expectancy at birth | 64.27 | 7.05 | 44.9 | 76.8 | 416 |
| Freedom to make life choices | 0.78 | 0.12 | 0.3 | 0.99 | 422 |
| Generosity | -0.01 | 0.16 | -0.34 | 0.66 | 406 |
| Perceptions of corruption | 0.74 | 0.19 | 0.05 | 0.97 | 396 |

Table 8: Regression reported in Table 2.1 of WHR 2018, and replication using updated data

| | WHR2018 | Current |
|-----------------------------|-------------------------|-------------------------|
| | (1) | (2) |
| $\overline{\mathrm{lngdp}}$ | 0.311 (0.064)*** | 0.318 (0.066)*** |
| countOnFriends | 2.447 (0.39)*** | 2.422 (0.381)*** |
| Health life expectancy | 0.032 (0.009)*** | 0.033 $(0.01)^{***}$ |
| freedom | 1.189 (0.302)*** | 1.164 $(0.3)^{***}$ |
| Generosity | 0.644 (0.274)** | 0.635 $(0.277)^{**}$ |
| corrupt | 542 (0.284)* | 540 (0.294)* |
| Year 2005 | 0.458 $(0.094)***$ | 0.447 $(0.094)***$ |
| Year 2006 | 030 (0.061) | 026 (0.062) |
| Year 2007 | 0.239 (0.06)*** | 0.237 $(0.061)^{***}$ |
| Year 2008 | $0.319 \ (0.059)^{***}$ | 0.32 (0.059)*** |
| Year 2009 | 0.22 (0.058)*** | 0.217 $(0.058)^{***}$ |
| Year 2010 | 0.138 (0.046)*** | 0.141 $(0.047)^{***}$ |
| Year 2011 | 0.147 $(0.047)^{***}$ | 0.147 $(0.048)^{***}$ |
| Year 2012 | $0.127 \ (0.041)^{***}$ | 0.13 $(0.041)^{***}$ |
| Year 2013 | 0.06 (0.04) | 0.046 (0.042) |
| Year 2015 | 0.012 (0.041) | 0.01 (0.041) |
| Year 2016 | 034 (0.048) | 039 (0.048) |
| Year 2017 | 0.058 (0.057) | 0.043 (0.055) |
| Year 2018 | | 0.081 (0.064) |
| Obs. | 1394 | 1516 |
| e(N-clust) | 157 | 157 |
| e(r2-a) | 0.742 | 0.74 |

Notes: 1) Column 1 reports estimates from a pooled OLS regression based on data used in the WHR 2018 (sample period 2005-2017). Column 2 replicates the regression with updated data that include observations from the year 2018 and a few countries that were surveyed in 2017 but their data were released late. 2). Standard errors in parentheses. *, ***, and **** indicate statistical significance at 10 percent, 5 percent and 1 percent levels. All standard errors are cluster-adjusted at the country level. The row "e(N-clust)" indicates the number of countries. 3). See section "Data Sources and Variable Definitions" for more information.

Table 9: (Table 2.1 in WHR 2018 Updated With the Most Recent Data, with year fixed effects): Regressions to Explain Average Happiness across Countries (Pooled OLS)

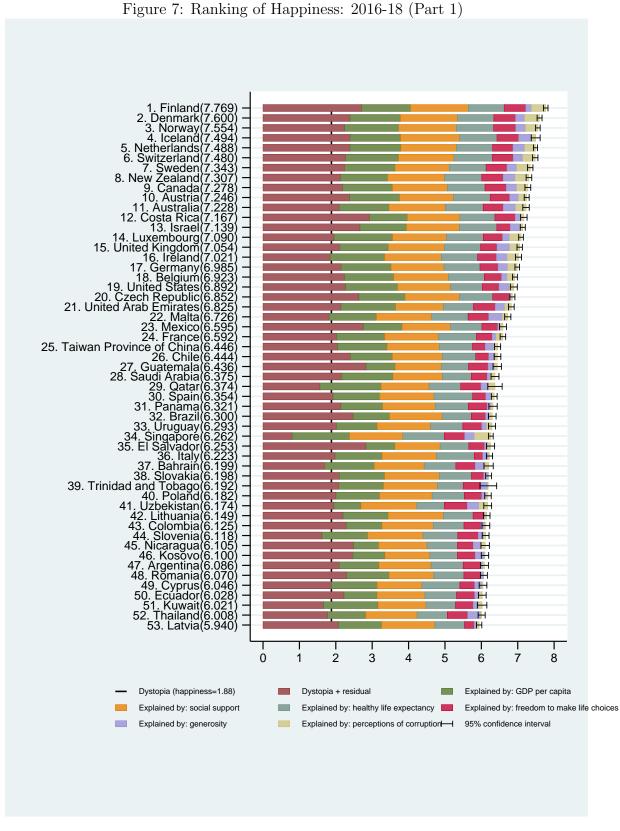
| | Ladder | PosAffect | NegAffect | LadderAgain |
|----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Log GDP per capita | (1) 0.318 | (2) 011 | (3) | $\frac{(4)}{0.338}$ |
| Log GDF per capita | (0.066)*** | (0.01) | (0.008) | (0.065)*** |
| Social support | 2.422 (0.381)*** | 0.253 $(0.05)^{***}$ | 313 (0.051)*** | 1.977 (0.397)*** |
| Healthy life expectancy at birth | 0.033 $(0.01)^{***}$ | $\underset{(0.001)}{0.001}$ | $\underset{(0.001)}{0.002}$ | 0.03 (0.01)*** |
| Freedom to make life choices | 1.164 $(0.3)****$ | 0.352 $(0.04)****$ | 072 (0.041)* | $\underset{(0.287)}{0.461}$ |
| Generosity | $0.635 \ (0.277)^{**}$ | 0.137 $(0.03)^{***}$ | 0.008 (0.028) | 0.351 (0.279) |
| Perceptions of corruption | 540 (0.294)* | $\underset{(0.027)}{0.025}$ | 0.094 $(0.024)***$ | 612 (0.287)** |
| Positive affect | | | | 2.063 $(0.384)***$ |
| Negative affect | | | | 0.242 (0.429) |
| Year 2005 | 0.447 $(0.094)***$ | 007 (0.009) | 0.021 $(0.008)**$ | 0.459 $(0.09)***$ |
| Year 2006 | 026 (0.062) | 0.01 (0.009) | 004 (0.009) | 037 (0.061) |
| Year 2007 | 0.237 $(0.061)***$ | 0.017 $(0.009)^*$ | 028 (0.007)*** | 0.218 $(0.06)***$ |
| Year 2008 | 0.32 $(0.059)***$ | 0.021 $(0.007)***$ | 039 (0.007)*** | 0.292 (0.063)*** |
| Year 2009 | 0.217 $(0.058)^{***}$ | $0.015 \ (0.008)^*$ | 025 (0.008)*** | 0.195 $(0.058)****$ |
| Year 2010 | 0.141 $(0.047)***$ | 0.011 (0.007) | 030 (0.006)*** | 0.128 (0.048)*** |
| Year 2011 | 0.147 $(0.048)^{***}$ | 0.0002 (0.008) | 025 (0.006)*** | 0.156 $(0.049)***$ |
| Year 2012 | 0.13 $(0.041)***$ | $0.011 \ (0.006)^*$ | 019 (0.006)*** | 0.114 (0.043)*** |
| Year 2013 | $\underset{(0.042)}{0.046}$ | $0.01 \\ (0.005)^*$ | 009 (0.006) | 0.03 (0.042) |
| Year 2015 | 0.01 (0.041) | 0007 (0.005) | 00004 (0.004) | 0.014 (0.04) |
| Year 2016 | 039 (0.048) | 005 (0.005) | 0.015 (0.005)*** | 029 (0.046) |
| Year 2017 | 0.043 (0.055) | 013 (0.006)** | 0.018 (0.006)*** | 0.069 (0.052) |
| Year 2018 | 0.081 (0.064) | 010 (0.007) | 0.025 $(0.007)***$ | 0.099 (0.061) |
| Obs. | 1516 | 1513 | 1515 | 1512 |
| e(N-clust) | 157 | 157 | 157 | 157 |
| e(r2-a) | 0.74 | 0.476 | 0.27 | 0.76 |

Notes: 1). Standard errors in parentheses. *, **, and *** indicate statistical significance at 10 percent, 5 percent and 1 percent levels! All standard errors are cluster-adjusted at the country level. The row "e(N-clust)" indicates the number of countries. 2). See section "Data Sources and Variable Definitions" for more information.

Table 10: (Table 2.1 in WHR 2018 Updated With the Most Recent Data, without year fixed effects): Regressions to Explain Average Happiness across Countries (Pooled OLS)

| | Ladder | PosAffect | NegAffect | LadderAgain |
|----------------------------------|-------------------------|-----------------------------|----------------------|----------------------|
| I CDD '' | (1) | (2) | (3) | (4) |
| Log GDP per capita | 0.328 $(0.065)^{***}$ | 010 (0.009) | 0.006 (0.008) | 0.348 (0.065)*** |
| Social support | 2.473 (0.374)*** | 0.267 (0.048)*** | 335 (0.051)*** | 1.920 (0.391)*** |
| Healthy life expectancy at birth | 0.031 $(0.009)^{***}$ | $\underset{(0.001)}{0.001}$ | 0.002 $(0.001)^*$ | 0.029 (0.009)*** |
| Freedom to make life choices | 1.018 (0.282)*** | 0.33 $(0.037)***$ | 033 (0.038) | 0.327 (0.269) |
| Generosity | 0.684 $(0.274)**$ | 0.145 $(0.029)^{***}$ | 006 (0.028) | 0.38 (0.277) |
| Perceptions of corruption | 550 (0.288)* | $\underset{(0.027)}{0.024}$ | 0.098 (0.024)*** | 600 (0.285)** |
| Positive affect | | | | 2.106 (0.392)*** |
| Negative affect | | | | 0.019 (0.406) |
| year-1 | | | | |
| year-2 | | | | |
| year-3 | | | | |
| year-4 | | | | |
| year-5 | | | | |
| year-6 | | | | |
| year-7 | | | | |
| year-8 | | | | |
| year-9 | | | | |
| year-11 | | | | |
| year-12 | | | | |
| year-13 | | | | |
| year-14 | | | | |
| Obs. e(N-clust) e(r2-a) | 1516 157 0.735 | 1513 157 0.473 | 1515 157 0.224 | 1512 157 0.756 |

Notes: 1). Standard errors in parentheses. *, **, and *** indicate statistical significance at 10 percent, 5 percent and 1 percent levels! 9All standard errors are cluster-adjusted at the country level. The row "e(N-clust)" indicates the number of countries. 2). See section "Data Sources and Variable Definitions" for more information.



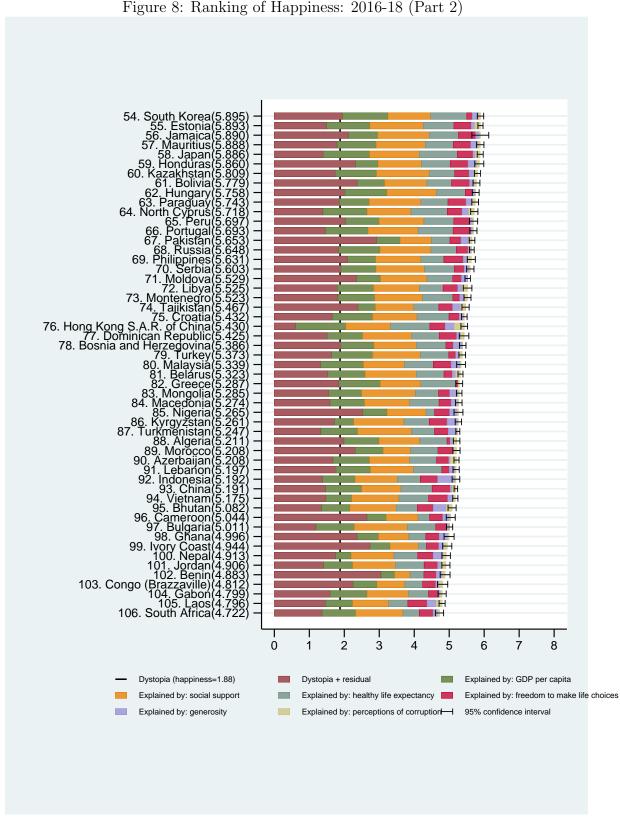


Figure 8: Ranking of Happiness: 2016-18 (Part 2)

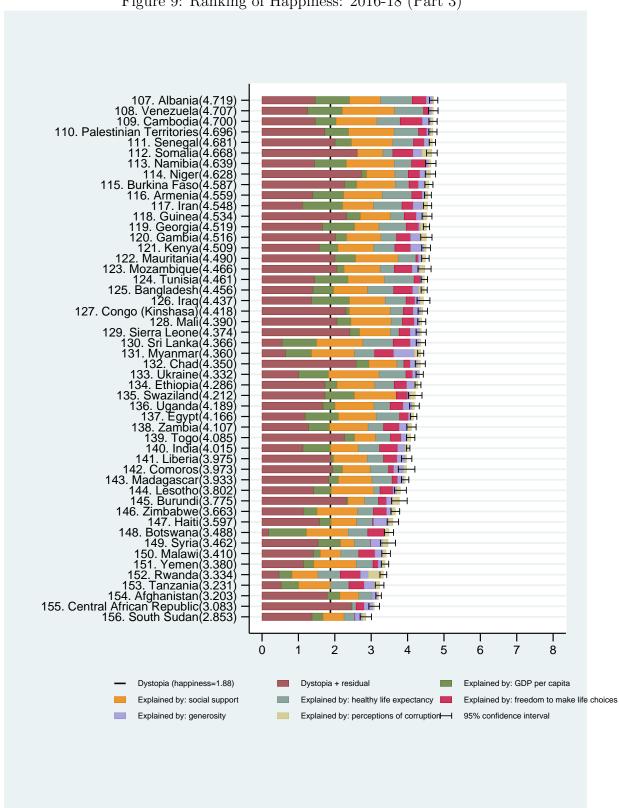


Figure 9: Ranking of Happiness: 2016-18 (Part 3)

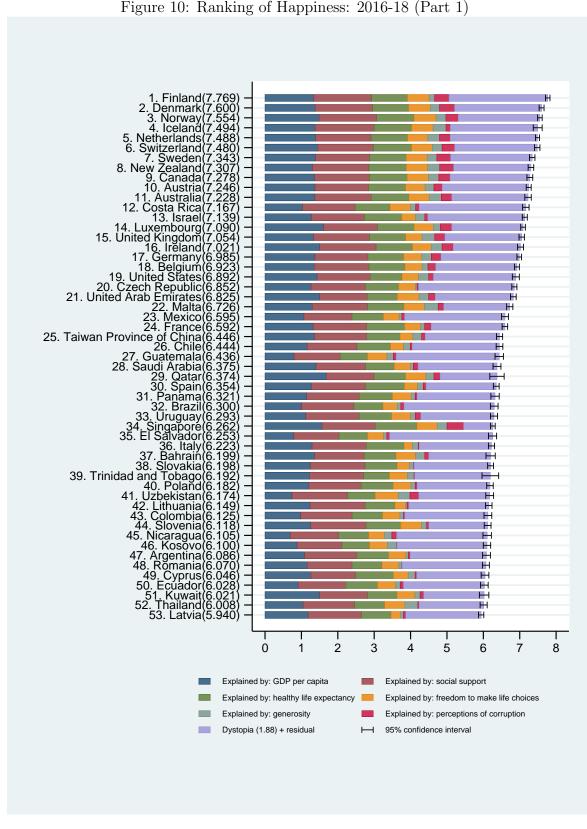


Figure 10: Ranking of Happiness: 2016-18 (Part 1)

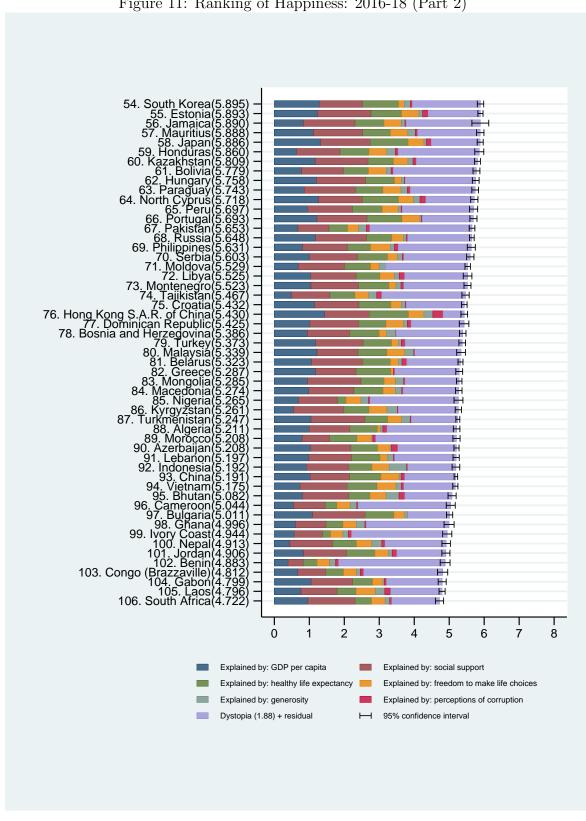


Figure 11: Ranking of Happiness: 2016-18 (Part 2)

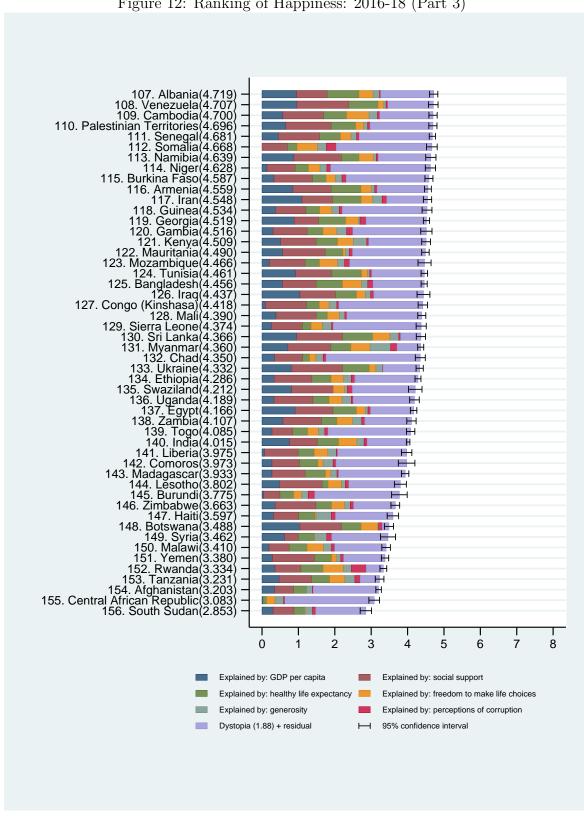


Figure 12: Ranking of Happiness: 2016-18 (Part 3)

Table 11: Countries/territories that have valid happiness scores in 2015 but not in 2016-2018

| Country name | Sample size in 2015 | |
|-----------------|---------------------|--|
| Syria Bhutan | 963 1011 | |
| Qatar | 968 | |

Table 12: Countries that used imputed corrupt based on WGI control of corruption indicators

| Country name | Imputation indicator: corrupt is imputed based on WGI's control of corruption in |
|----------------------|--|
| Saudi Arabia | 1 |
| Jordan | 1 |
| China | 1 |
| Bahrain | 1 |
| Kuwait | 1 |
| Qatar | 1 |
| Turkmenistan | 1 |
| United Arab Emirates | 1 |

Table 13: Countries/territories that are not covered in the decomposition exerise due to missing factors; an empty table means all countries are covered

| Country name | Country | Missing factors |
|--------------|---------|-----------------|
| | | |

Note: Any countries/territories that are missing per-capita GDP automatically miss Generosity, because we adjust the latter to filter out the influence of per-capita GDP. In addition, any countries/territories that are missing the variable of corruption perception are indeed missing the perception on both business and government.

Figure 13: Changes in Happiness: from 2005-08 to 2016-18 (Part 1) 1. Benin(1.390)
2. Nicaragua(1.264)
3. Bulgaria(1.167)
4. Latvia(1.159)
5. Togo(1.077)
6. Congo (Brazzaville)(0.992)
7. Sierra Leone(0.971)
8. Slovakia(0.933) 6. Congo (Brazzaville) (0.992)
7. Sierra Leone (0.971)
8. Slovakia (0.933)
9. Ecuador (0.926)
10. Uzbekistan (0.903)
11. Cameroon (0.880)
12. Philippines (0.860)
13. El Salvador (0.853)
14. Serbia (0.853)
15. Romania (0.851)
16. Kosovo (0.785)
17. Macedonia (0.780)
18. Tajikistan (0.764)
19. Mongolia (0.735)
20. Pakistan (0.703)
21. Burkina Faso (0.698)
22. Hungary (0.683)
23. Georgia (0.665)
24. Peru (0.645)
25. Cambodia (0.636)
26. Iceland (0.605)
27. Chile (0.597)
28. Uruguay (0.579)
29. Taiwan Province of China (0.578)
30. Kyrgyzstan (0.566)
31. Honduras (0.556)
32. Paraguay (0.551)
33. Niger (0.548)
34. Estonia (0.519)
35. Azerbaijan (0.502)
36. Bosnia and Herzegovina (0.487)
37. Germany (0.469)
38. Poland (0.445)
39. China (0.426)
40. Dominican Republic (0.422)
41. Nigeria (0.418)
42. South Korea (0.404)
43. Moldova (0.401)
44. Russia (0.336)
45. Czech Republic (0.381)
46. Bolivia (0.346)
47. Lithuania (0.333)
48. Nepal (0.326) -2 -1.5 -.5 0 .5 1.5 2 Changes from 2005–2008 to 2016–2018 → 95% confidence interval

Figure 14: Changes in Happiness: from 2005-08 to 2016-18 (Part 2) 51. Kenya(0.310) 52. Slovenia(0.306) 53. Mauritania(0.292) 54. Lebanon(0.285) 52. Slovenia (0.306)
53. Mauritania (0.292)
54. Lebanon (0.285)
55. Palestinian Territories (0.279)
56. Chad (0.275)
57. Indonesia (0.240)
58. Zimbabwe (0.236)
59. Thailand (0.227)
60. Guatemala (0.223)
61. Turkey (0.218)
62. Burundi (0.212)
63. United Kingdom (0.137)
64. Portugal (0.129)
65. Kazakhstan (0.118)
66. Hong Kong S.A.R. of China (0.100)
67. Finland (0.097)
68. Austria (0.094)
69. Ghana (0.090)
70. United Arab Emirates (0.090)
71. Senegal (0.088)
72. Albania (0.046)
74. Israel (0.045)
75. Norway (0.030)
76. Colombia (0.014)
77. Liberia (0.014)
78. Switzerland (0.007)
79. Netherlands (-0.028)
80. Argentina (-0.029)
81. Sri Lanka (-0.030)
82. Sweden (-0.035)
83. Armenia (-0.048)
84. Mexico (-0.051)
85. Kuwait (-0.055)
86. Uganda (-0.064)
87. Australia (-0.065)
88. Trinidad and Tobago (-0.071)
89. New Zealand (-0.109)
90. Iraq (-0.153)
91. Canada (-0.179)
92. Cyprus (-0.192)
93. Bangladesh (-0.195)
94. Haiti (-0.203)
95. Japan (-0.215)
96. Vietnam (-0.225)
97. Mozambique (-0.227)
98. Namibia (-0.246)
99. Brazil (-0.250)
100. Belarus (-0.257) -1.5-.5 0 .5 1.5 -2 Changes from 2005–2008 to 2016–2018 ► 95% confidence interval

Figure 15: Changes in Happiness: from 2005-08 to 2016-18 (Part 3) 101. Belgium(-0.276) 102. France(-0.282) 103. Jamaica(-0.318) 104. Panama(-0.329) 105. Ireland(-0.337) 106. Denmark(-0.341) 107. Laos(-0.365) 108. Madagascar(-0.377) 109. Singapore(-0.379) \dashv 110. Croatia(-0.389) 111. Zambia(-0.413) 112. United States(-0.446) 113. South Africa(-0.490) 114. Italy(-0.512) 115. Afghanistan(-0.520) 116. Saudi Arabia(-0.666) 117. Malaysia(-0.697) 118. Jordan(-0.697) 119. Iran(-0.713) 120. Ukraine(-0.741) 121. Spain(-0.793) 122. Egypt(-0.936) 123. Rwanda(-0.940) 124. Malawi(-0.951) 125. Tanzania(-0.982) 126. Greece(-1.040) 127. Central African Republic(-1.077) 128. Yemen(-1.097) 129. India(-1.137) 130. Botswana(-1.606) 131. Syria(-1.861) 132. Venezuela(-1.944) 0 .5 1.5 -1.5 -1 -.5 2 Changes from 2005-2008 to 2016-2018 ► 95% confidence interval

Table 14: Countries/territories that are in the 2016-2018 happiness ranking (including several that use 2015 survey), but do not have ladder observations in the 2005-2008 period

Country name

Algeria

Bahrain

Bhutan

Comoros

Congo (Kinshasa)

Ethiopia

Gabon

Gambia

Guinea

Ivory Coast

Lesotho

Libya

Luxembourg

Malta

Mauritius

Morocco

Myanmar

North Cyprus

Qatar

Somalia

South Sudan

Swaziland

Tunisia

Turkmenistan

Ranking of the Six Factors Used to Explain Happiness Scores

The next set of figures are rankings of countries by the six underlying factors used to explain international differences in happiness scores, namely GDP per person, healthy life expectancy, social support, perceived freedom to make life choice, generosity and perception of corruption. The rankings are based on national averages over the period from 2016 to 2018. A few countries were not surveyed in the 2016-2018 period; their 2015 surveys are used for the rankings. The ranking figures do not show imputed data. As we explain when describing our imputation algorithm, we do not use the imputed values in any of our headline results including the happiness rankings. The only place where we use them is when we try to decompose a country's average happiness score into components explained by the six factors. The imputation involves only a small number of countries. Here, we avoid relying on the imputation

to generate the rankings. If a country is missing the information about corruption perceptions, for example, they won't show up in the corruption ranking, thus the ranking for corruption will cover a smaller number of countries than the ranking of overall happiness.

Figure 16: Ranking of Natural Log of Per-Capita GDP: 2016-18; bars show natural logs, dollar values are shown on the Y axis after country names (Part 1)

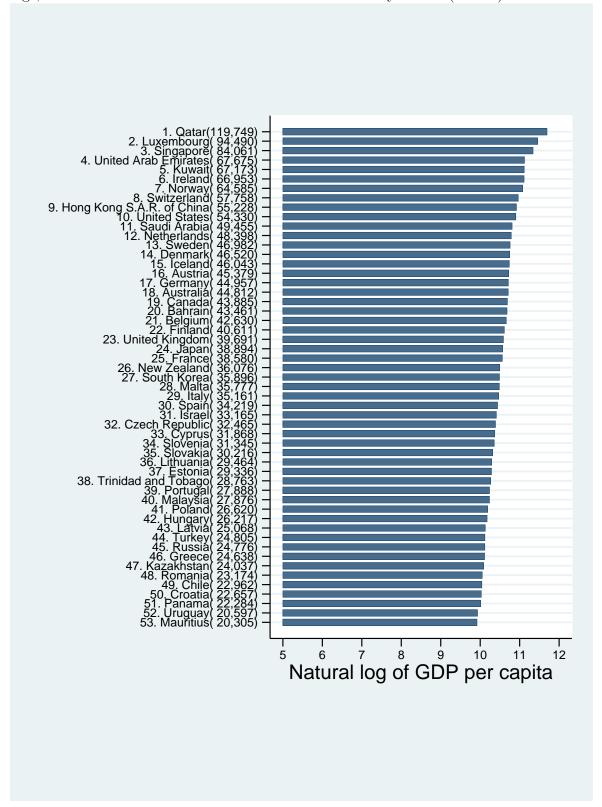


Figure 17: Ranking of Natural Log of Per-Capita GDP: 2016-18; bars show natural logs, dollar values are shown on the Y axis after country names (Part 2)

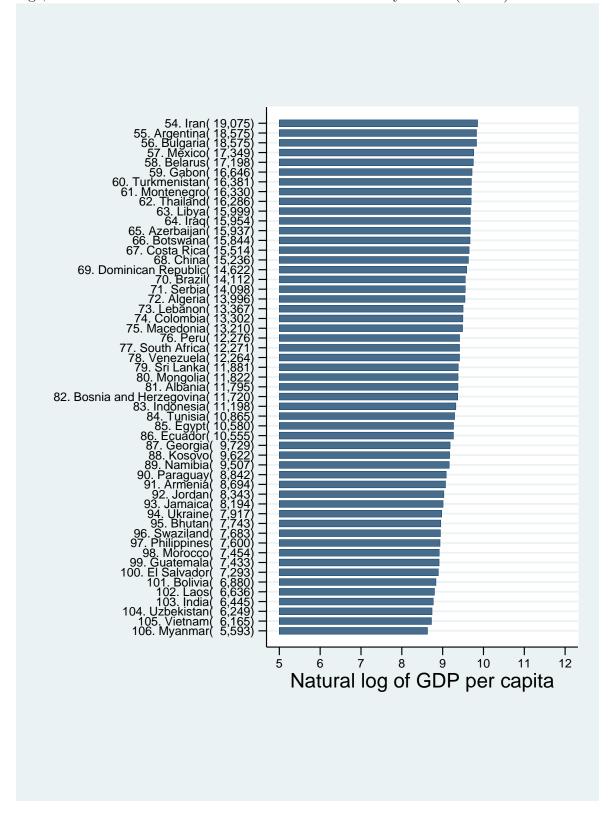
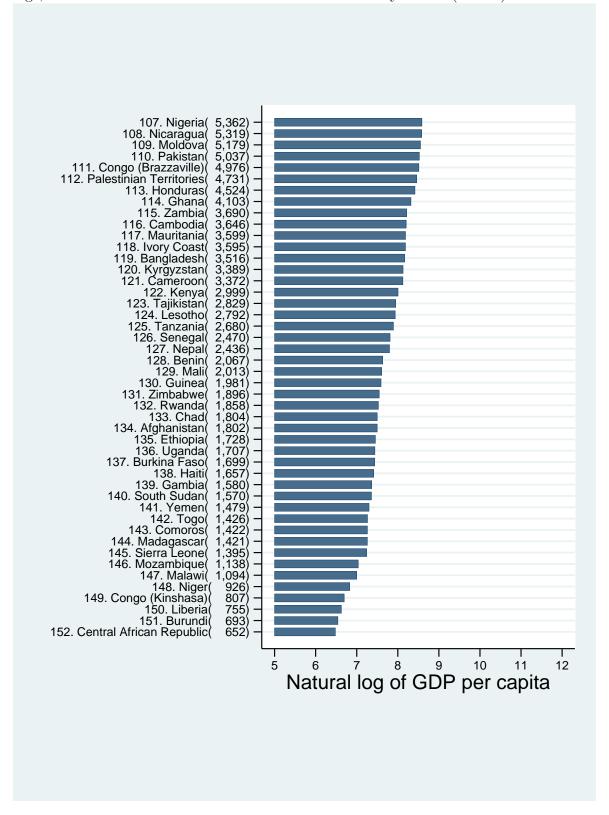


Figure 18: Ranking of Natural Log of Per-Capita GDP: 2016-18; bars show natural logs, dollar values are shown on the Y axis after country names (Part 3)



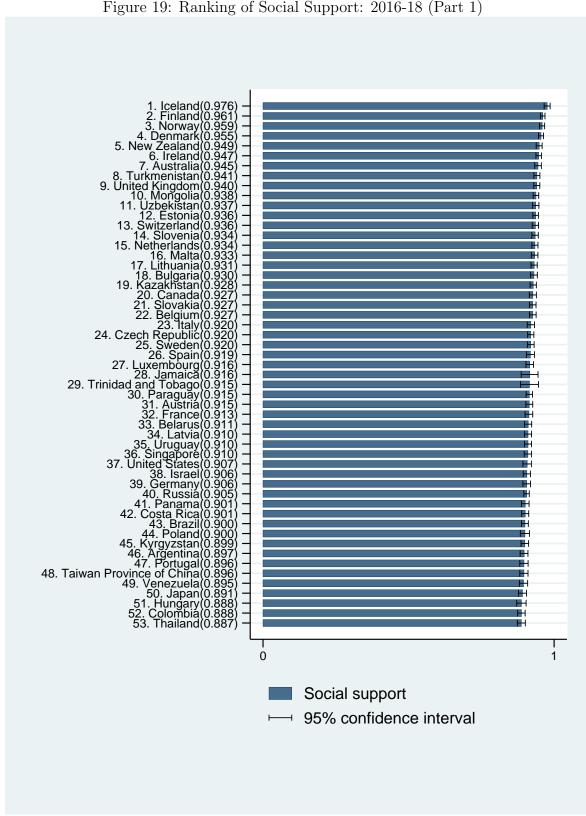


Figure 19: Ranking of Social Support: 2016-18 (Part 1)

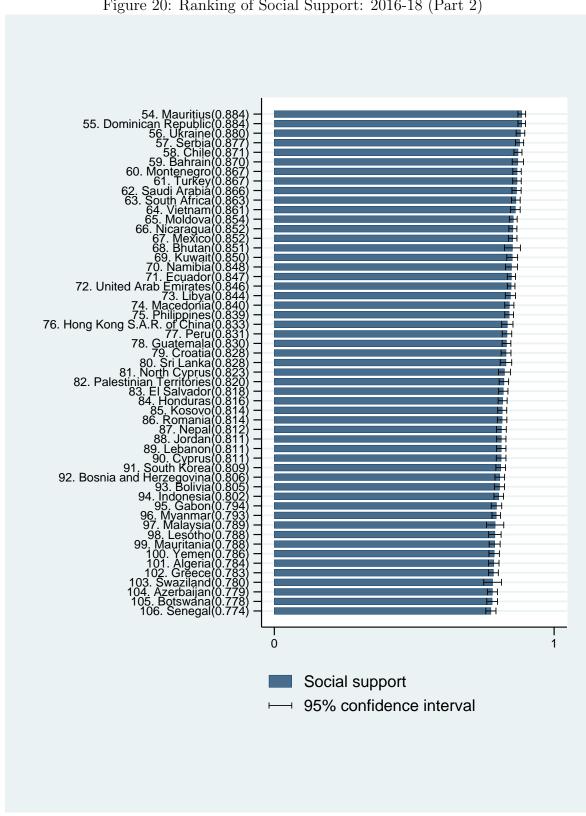


Figure 20: Ranking of Social Support: 2016-18 (Part 2)

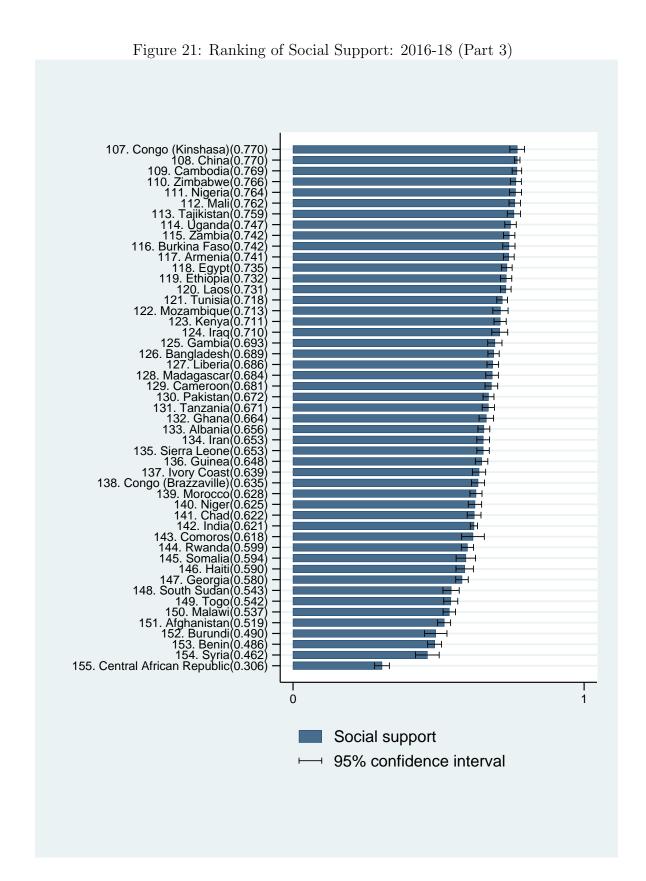
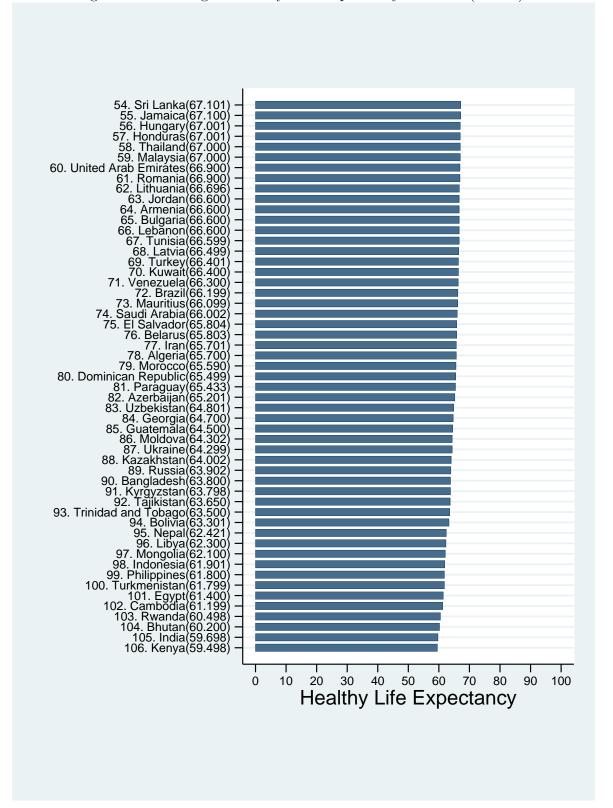
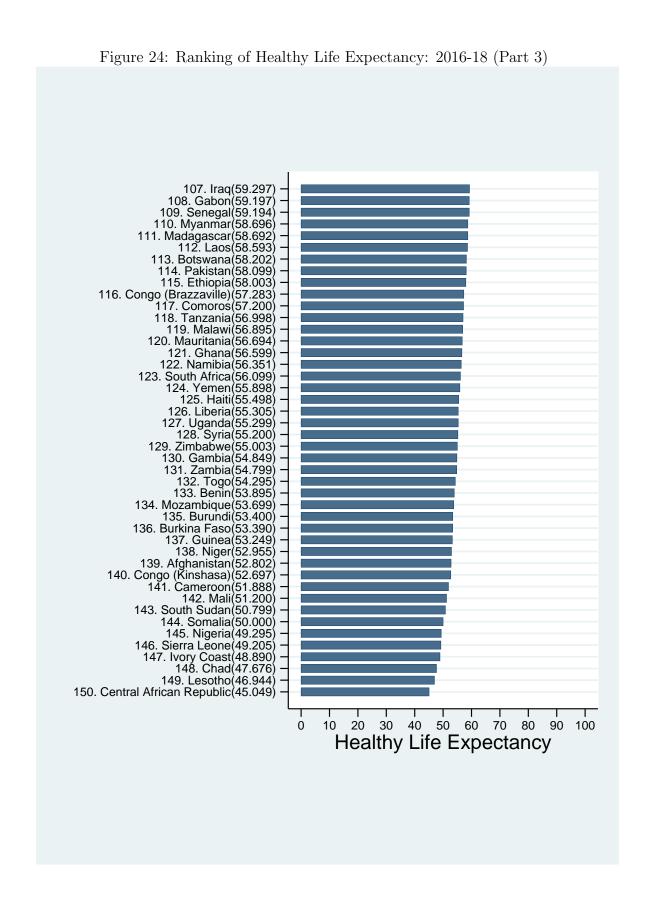


Figure 22: Ranking of Healthy Life Expectancy: 2016-18 (Part 1) 1. Singapore(76.500)
2. Japan(74.900)
3. Spain(74.100)
4. Switzerland(73.800)
5. France(73.600)
6. Cyprus(73.501)
7. Italy(73.400)
8. Canada(73.400)
9. South Korea(73.30)
10. Australia(73.30)
11. Israel(73.10)
12. Norway(73.07)
13. Iceland(73.00)
14. New Zealand(72.9)
15. Austria(72.7)
16. Luxembourg(72.6)
17. Sweden(72.6) 13. Iceland (73.000)
14. New Zealand (72.999)
15. Austria (72.900)
16. Luxembourg (72.600)
17. Sweden (72.500)
18. Netherlands (72.200)
20. Malta (72.200)
21. Greece (72.200)
22. Portugal (72.200)
23. Denmark (72.100)
24. United Kingdom (72.100)
25. Germany (71.801)
27. Finland (71.801)
27. Finland (71.800)
28. Costa Rica (71.100)
29. Slovenia (70.800)
30. Chile (69.800)
31. Czech Republic (69.797)
32. Croatia (69.603)
33. Panama (69.500)
34. China (68.981)
35. Uruguay (68.900)
36. Poland (68.700)
37. Argentina (68.600)
38. Slovakia (68.599)
39. United States (68.401)
40. Albania (68.401)
41. Estonia (68.400)
42. Bahrain (68.300)
44. Montenegro (68.300)
45. Ecuador (68.199)
46. Mexico (68.003)
47. Peru (67.800)
48. Serbia (67.798)
49. Vietnam (67.500)
51. Colombia (67.400)
52. Macedonia (67.201) 80 30 40 50 20 60 70 10 90 100 Healthy Life Expectancy







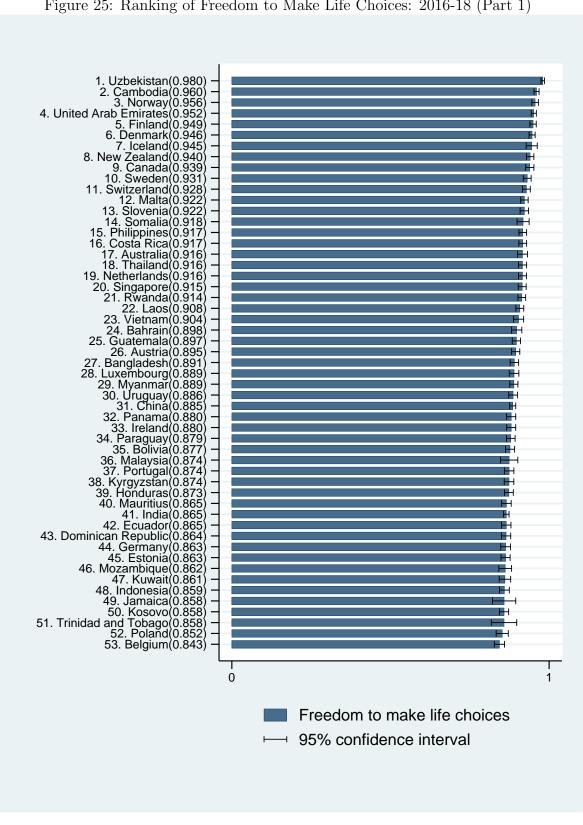
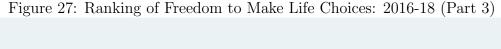


Figure 25: Ranking of Freedom to Make Life Choices: 2016-18 (Part 1)

Figure 26: Ranking of Freedom to Make Life Choices: 2016-18 (Part 2) 54. Argentina(0.84 55. Sri Lanka(0.84 56. Colombia(0.84 57. Romania(0.83 58. Czech Republic(0.83 69. Bhutan(0.83 60. Botswana(0.83 62. United States(0.83 63. United Kingdom(0.83 64. Japan(0.83 65. Malawi(0.83 67. Nepal(0.83 68. Saudi Arabia(0.83 69. France(0.83 66. Hong Kong S.A.R 67. Nepall (0.814)
68. Saudi Arabiai (0.814)
69. France (0.812)
70. Nicaraguai (0.811)
71. Mexico (0.810)
72. Kenyai (0.807)
73. Zambiai (0.807)
74. El Salvador (0.807)
75. Nigeriai (0.803)
76. Morocco (0.796)
77. North Cyprusi (0.796)
78. Tanzaniai (0.796)
79. Libyai (0.795)
80. Kazakhstani (0.796)
81. Cyprusi (0.782)
83. Turkmenistani (0.772)
84. Brazili (0.772)
85. South Africai (0.772)
86. Tajikistani (0.771)
87. Albaniai (0.767)
88. Jordani (0.767)
89. Gambiai (0.766)
90. Camerooni (0.767)
89. Gambiai (0.766)
91. Ghanai (0.766)
92. Congo (Brazzaville) (0.757)
93. Israel (0.756)
94. Liberiai (0.756)
94. Liberiai (0.756)
95. Spaini (0.749)
96. Zimbabwei (0.747)
97. Lesothoi (0.744)
99. Ugandai (0.743)
100. Ivory Coast (0.740)
101. Azerbaijani (0.739)
102. Taiwan Province of Chinai (0.739)
103. Benini (0.738)
104. Georgiai (0.733) 0 Freedom to make life choices 95% confidence interval



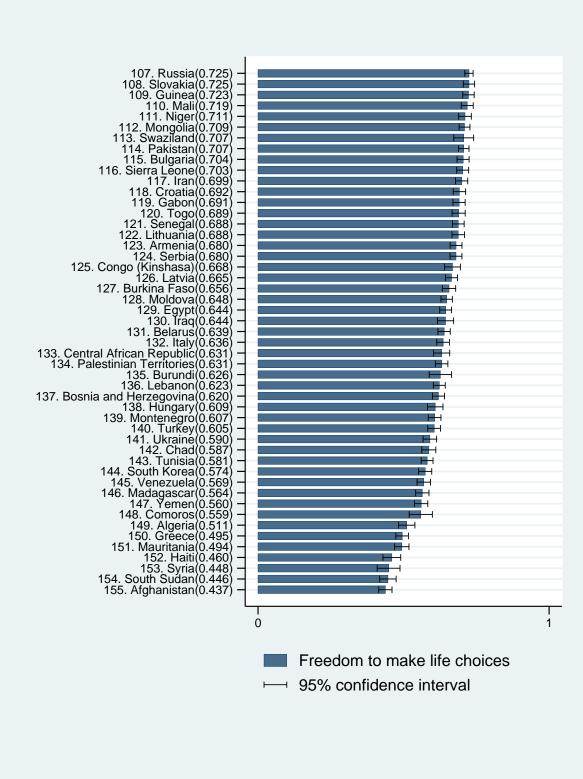
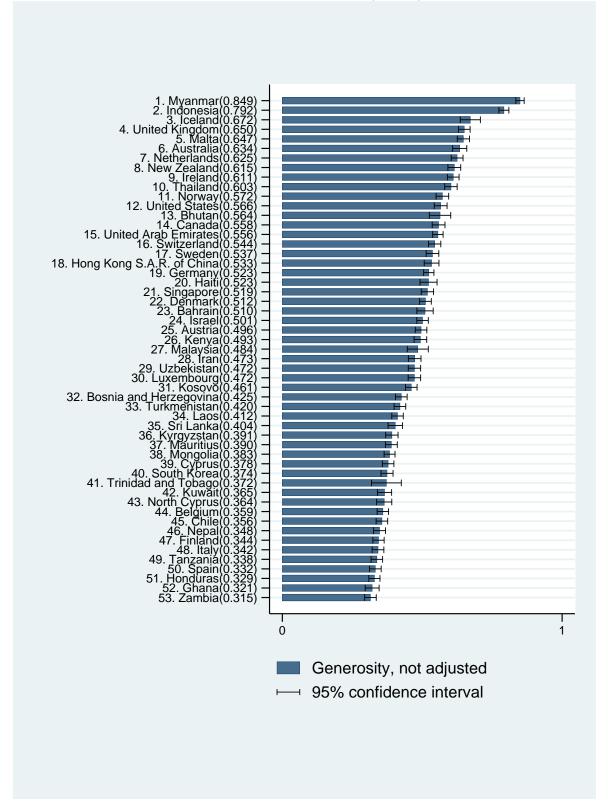
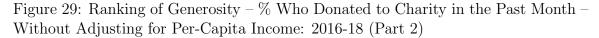
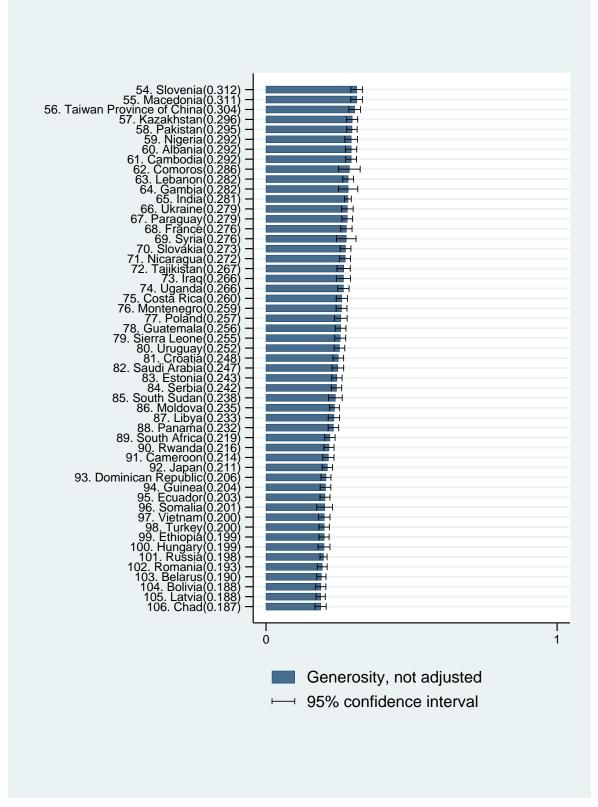
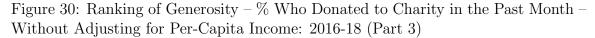


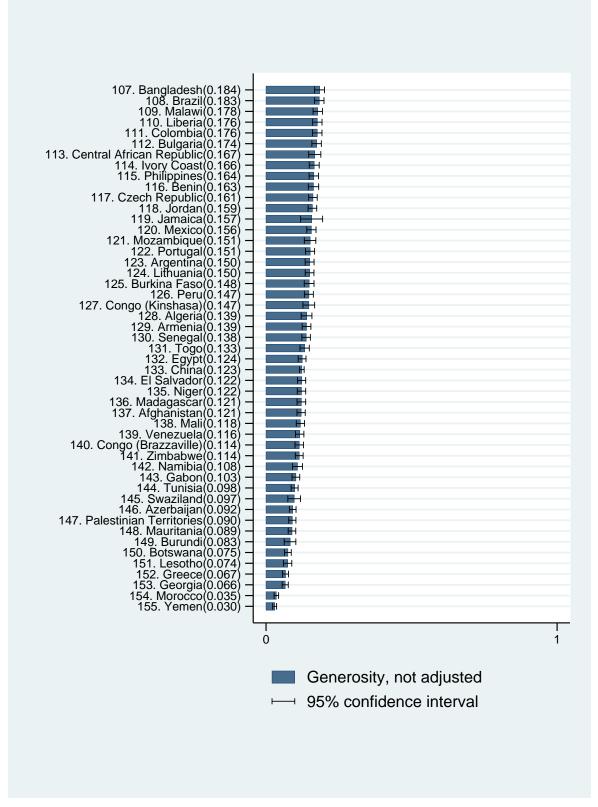
Figure 28: Ranking of Generosity – % Who Donated to Charity in the Past Month – Without Adjusting for Per-Capita Income: 2016-18 (Part 1)











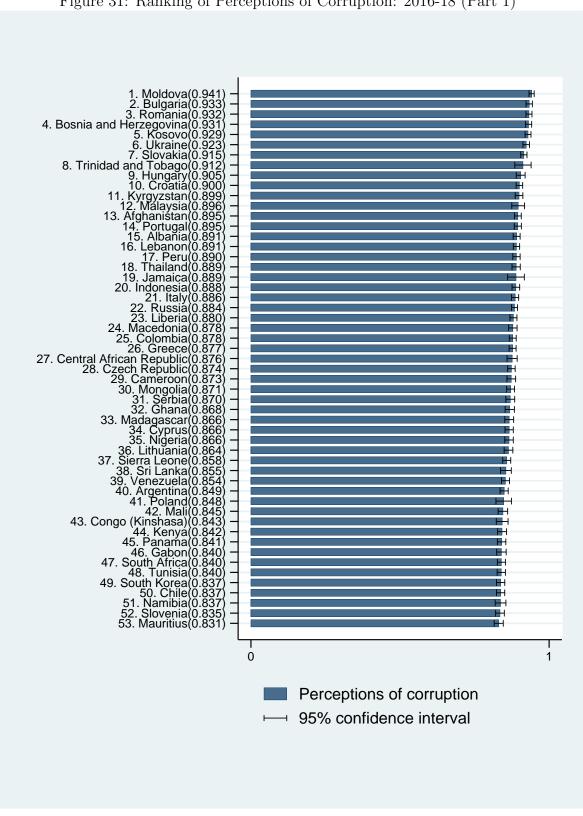


Figure 31: Ranking of Perceptions of Corruption: 2016-18 (Part 1)

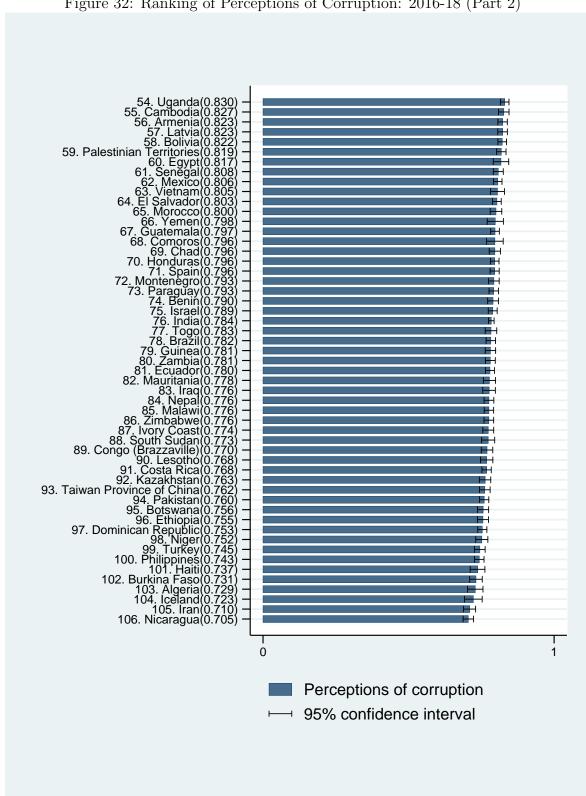
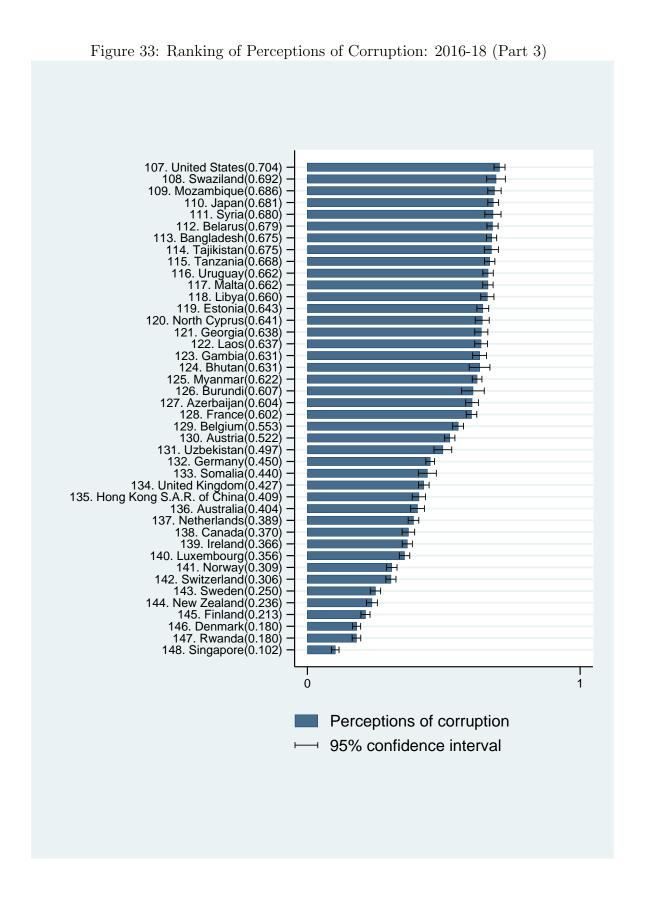


Figure 32: Ranking of Perceptions of Corruption: 2016-18 (Part 2)



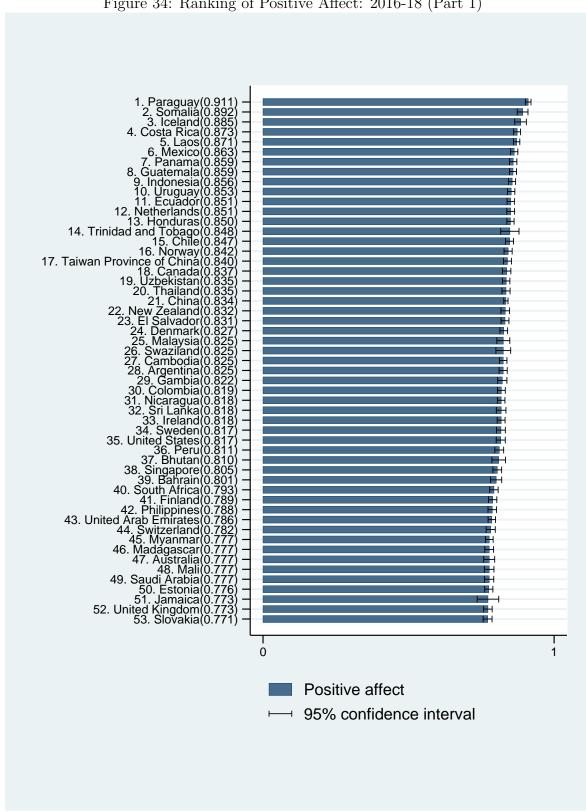
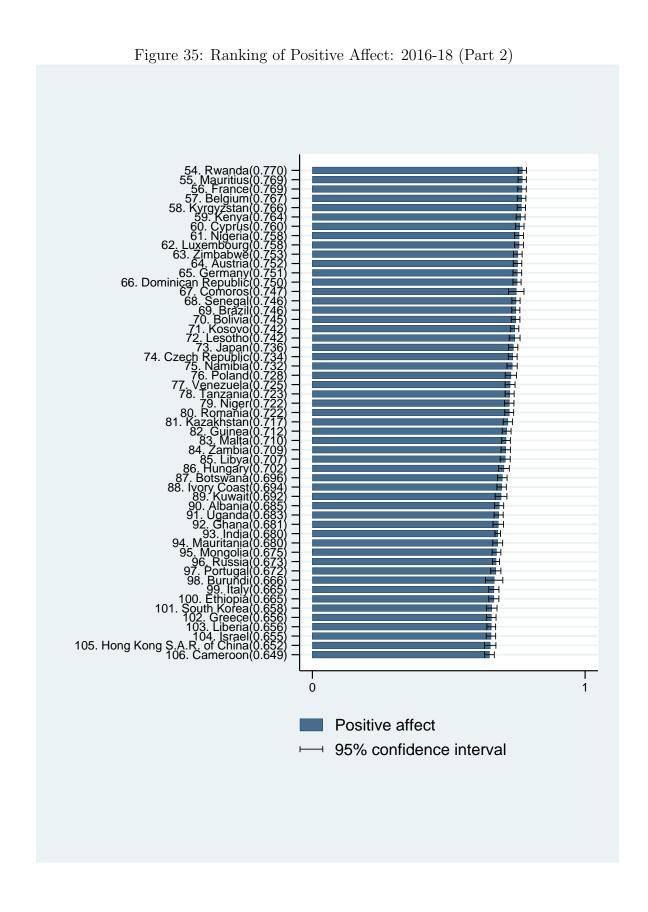
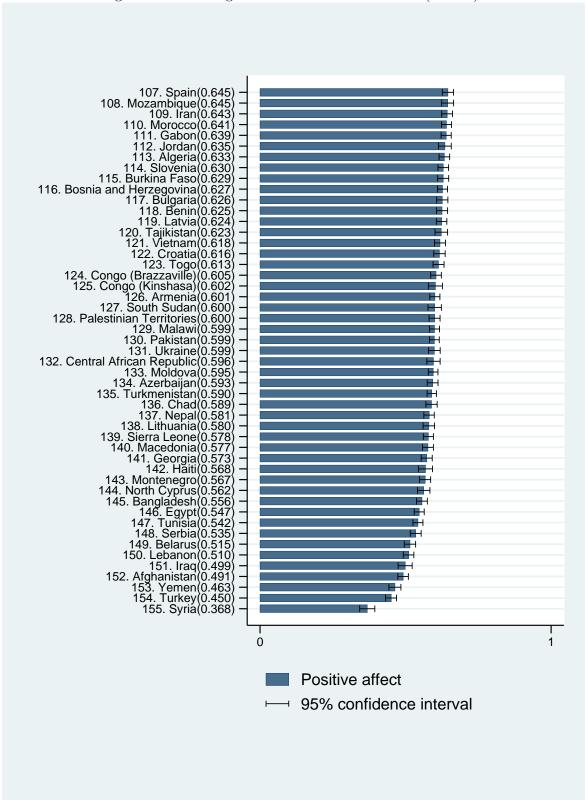


Figure 34: Ranking of Positive Affect: 2016-18 (Part 1)







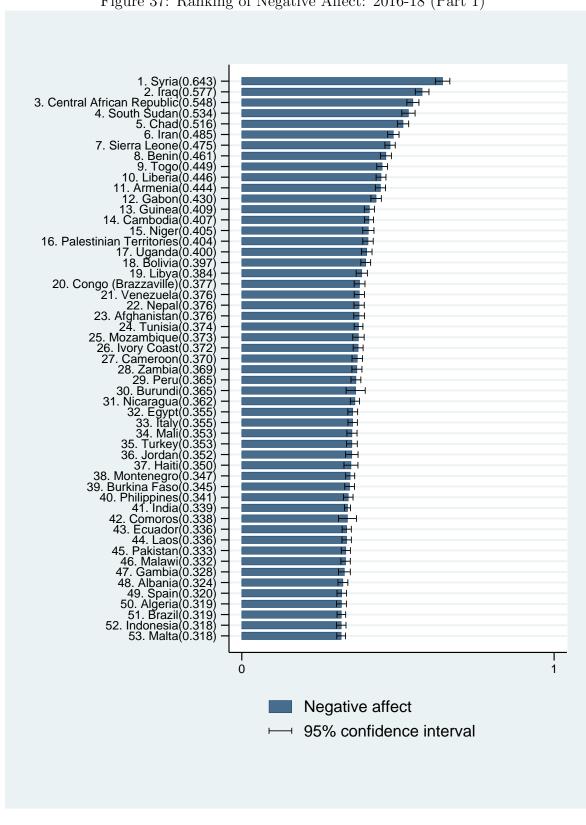


Figure 37: Ranking of Negative Affect: 2016-18 (Part 1)

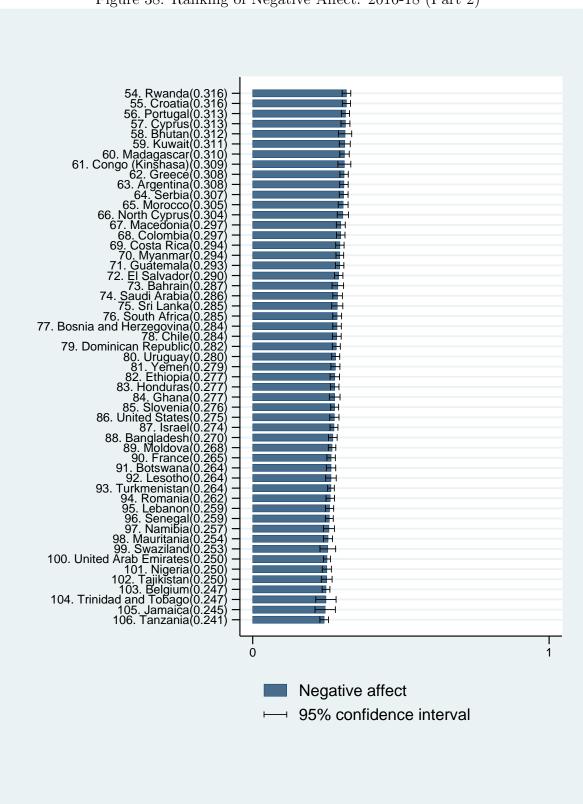


Figure 38: Ranking of Negative Affect: 2016-18 (Part 2)

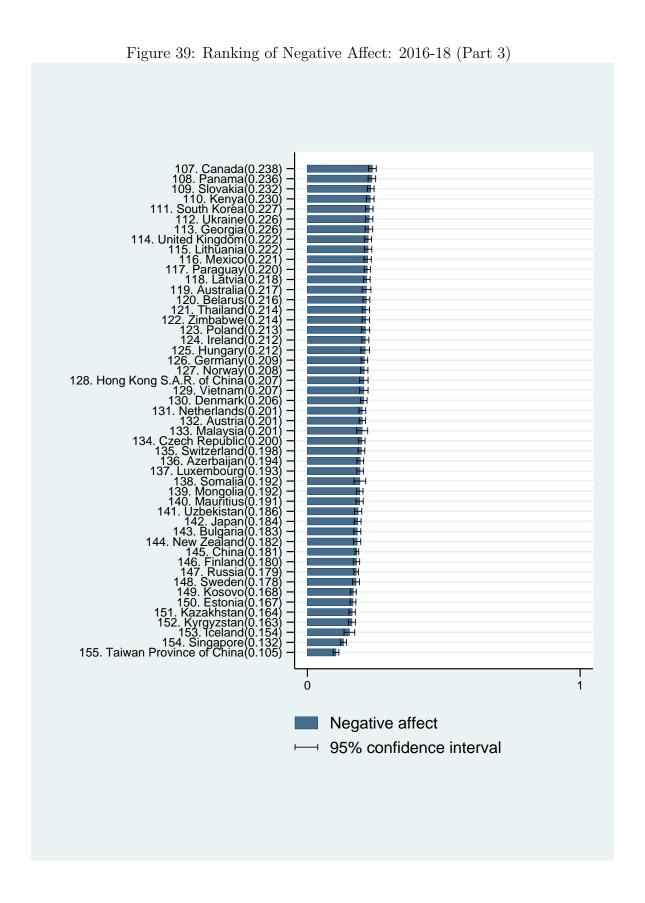


Table 15: Regressions with inequality measures

| c1 | c2 | c3 | c4 | c5 | c6 |
|---------------------|---|--|--|---|---|
| . , | . , | · / | - ` ′ | . , | (6) |
| - | | | | | 0.392 $(0.07)***$ |
| 1.902 (0.365)*** | 1.713 (0.327)*** | 1.865 (0.335)*** | 1.787 (0.345)*** | 1.777 (0.331)*** | 1.540 (0.335)*** |
| 0.022 (0.009)** | $0.015 \atop \scriptscriptstyle (0.011)$ | $0.014 \atop \scriptscriptstyle (0.012)$ | $\begin{array}{c} 0.012 \\ \scriptscriptstyle (0.012) \end{array}$ | $\begin{array}{c} 0.015 \\ \scriptscriptstyle (0.012) \end{array}$ | 0.015 (0.012) |
| 0.897 (0.267)*** | 0.995 $(0.262)^{***}$ | $1.045 \atop (0.287)^{***}$ | 1.035 $(0.28)^{***}$ | 1.085 $(0.292)^{***}$ | 1.136 (0.276)*** |
| 0.784 (0.266)*** | 0.618 $(0.288)**$ | $\underset{(0.317)^{**}}{0.702}$ | $0.617 \atop (0.322)^*$ | $0.699 \atop \scriptscriptstyle (0.314)^{**}$ | 0.653 $(0.313)**$ |
| 573 (0.289)** | 264 (0.277) | 395 (0.278) | 339 (0.3) | 328 (0.286) | 201 (0.316) |
| 206 (0.087)** | 199 (0.099)** | | | 094 (0.105) | 204 (0.11)* |
| | | -1.090 (0.369)*** | | 939 (0.382)** | |
| | | | -1.645 (0.854)* | | -1.452 (0.879)* |
| | 479 (0.161)*** | 462 (0.163)*** | 472 (0.176)*** | 445 (0.165)*** | 435 (0.176)** |
| | 479 (0.197)** | 501 (0.197)** | 452 (0.223)** | 487 (0.197)** | 425 $(0.22)^*$ |
| | 688 (0.154)*** | 655 (0.173)*** | 454 (0.207)** | 664 (0.171)*** | 511 (0.203)** |
| | 520 (0.373) | 557 (0.376) | 394 (0.402) | 555 (0.376) | 395 (0.406) |
| | 767 (0.246)*** | 618 (0.23)*** | 581 (0.205)*** | 616 (0.231)*** | 566 (0.208)*** |
| 0.611 (0.099)*** | 0.182 (0.177) | 0.236 (0.179) | 0.413 $(0.243)^*$ | 0.274 (0.184) | 0.485 $(0.237)**$ |
| | $0.201 \atop (0.085)^{**}$ | $0.353 \ (0.143)^{**}$ | 0.269 (0.099)*** | 0.338 $(0.135)**$ | 0.271 $(0.097)***$ |
| | 445 (0.245)* | 483 (0.242)** | 392 (0.294) | 459 (0.245)* | 343 (0.285) |
| | 597 (0.29)** | 556 (0.3)* | 395 (0.321) | 543 (0.3)* | 347 (0.318) |
| 1516 | 1516 | 1203 | 1400 | 1203 | 1400 |
| 157 0.766 | 157 0.788 | $154 \\ 0.791$ | 137 0.784 | $154 \\ 0.792$ | $137 \\ 0.788$ |
| | (1) 0.41 0.062)*** 1.902 0.365)*** 0.022 (0.009)** 0.784 0.266)***573 (0.289)**206 (0.087)** 0.611 0.099)*** | (1) (2) 0.41 0.36 0.062)*** (0.064)*** 1.902 1.713 0.365)*** (0.327)*** 0.022 0.015 (0.009)** (0.011) 0.897 0.995 0.267)*** (0.262)*** 0.784 0.618 0.266)*** (0.288)**573264 (0.289)** (0.277)206199 (0.087)** (0.099)** 479 (0.161)***479 (0.197)**688 (0.154)***520 (0.373)767 (0.246)*** 0.611 0.182 0.099)*** 0.611 0.182 0.099)*** 1516 1516 157 157 | (1) (2) (3) 0.41 0.36 0.326 0.062)*** (0.064)*** (0.071)*** 1.902 1.713 1.865 0.365)*** (0.327)*** (0.335)*** 0.022 0.015 0.014 (0.009)** (0.011) (0.012) 0.897 0.995 1.045 0.267)*** (0.262)*** (0.287)*** 0.784 0.618 0.702 0.266)*** (0.288)** (0.317)** 573264395 (0.289)** (0.277) (0.278) 206199 (0.087)** (0.099)** -1.090 (0.369)*** 479462 (0.161)*** (0.163)*** 479501 (0.197)** (0.197)** 688655 (0.154)*** (0.173)*** 520557 (0.373) (0.376) 767618 (0.246)*** (0.23)*** 0.611 0.182 0.236 0.099)*** 0.611 0.182 0.236 0.099)*** 0.201 0.353 (0.085)** (0.143)** 445483 (0.245)* (0.242)** 597556 (0.29)** (0.3)* 1516 1516 1203 157 157 154 | (1) (2) (3) (4) 0.41 0.36 0.326 0.387 0.062)**** (0.064)**** (0.071)**** (0.07)**** 1.902 1.713 1.865 1.787 0.365)**** (0.327)**** (0.335)**** (0.345)**** 0.022 0.015 0.014 0.012 (0.009)*** (0.011) (0.012) (0.012) 0.897 0.995 1.045 1.035 0.267)**** (0.262)**** (0.287)**** (0.28)**** 0.784 0.618 0.702 0.617 0.266)**** (0.288)*** (0.317)*** (0.322)** 573264395339 (0.289)*** (0.277) (0.278) (0.3) 206199 (0.087)*** (0.099)** -1.090 (0.369)**** -479462472 (0.161)**** (0.163)**** (0.176)**** 479501452 (0.197)*** (0.197)*** (0.223)** 688655454 (0.154)**** (0.173)**** (0.207)** 520557394 (0.373) (0.376) (0.402) 767618581 (0.246)**** (0.23)**** (0.205)**** 0.611 0.182 0.236 0.413 0.099)*** (0.177) (0.179) (0.243)* 0.201 0.353 0.269 (0.085)*** (0.143)*** (0.099)*** 445483392 (0.245)** (0.242)*** (0.294) 597556395 (0.29)*** (0.3)* (0.321) 1516 1516 1203 1400 157 157 154 137 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |

Notes: 1). Standard errors in parentheses. *, **, and *** indicate statistical significance at 10 percent, 5 percent and 1 percent levels. All standard errors are cluster-adjusted at the country level. The row "e(N-clust)" indicates the number of countries. 2). See section "Data Sources and Variable Definitions" for more information.

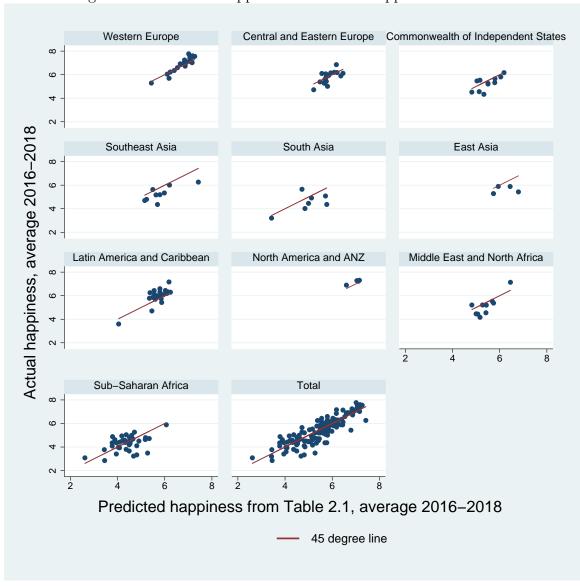


Figure 40: Predicted happiness and actual happiness in 2016-18

Note: These average actual (predicted) happiness scores by country/territory for the 2016-2018 period are weighted averages of the yearly averages by county/territory used in (predicted by) column (1)'s regression in Table 10. The yearly weights are the sums of Gallup-assigned individual weights by country/territory in that year.

Table 16: Decomposing the happiness difference between a hypothetical average country and Dystopia ${\bf P}$

| ory and Dystopia | Α. | D / : | D 1: 1 | Cl C |
|---------------------------------------|---------|----------|-----------|-----------|
| | Average | Dystopia | Explained | |
| | country | | excess | explained |
| | | | happiness | excess |
| | | | over | happiness |
| | | | Dystopia | over |
| | | | due to | Dystopia |
| | | | | due to |
| Happiness | 5.41 | 1.88 | | |
| Logged GDP per capita | 9.24 | 6.4 | .91 | .26 |
| Social support | .8 | .31 | 1.21 | .34 |
| Healthy life expectancy | 63.88 | 41.85 | .73 | .21 |
| Freedom to make life choices | .77 | .44 | .39 | .11 |
| Generosity | 01 | 3 | .18 | .05 |
| Perceptions of corruption | .74 | .94 | .11 | .03 |
| Sum of explained excess over Dystopia | | | 3.53 | 1 |

Table 17: Decomposing the happiness difference between the group of top 10 countries/territories and the group of bottom 10 countries/territories in the ranking of happiness scores

| | Top 10 | Bottom 10 | Difference in happiness due to | Share of explained difference due to |
|---|--------|--------------|---|--------------------------------------|
| Happiness | 7.46 | 3.3 | | |
| Logged GDP per capita | 10.76 | 7.65 | .99 | .32 |
| Social support | .94 | .58 | .88 | .29 |
| Healthy life expectancy | 72.76 | 54.78 | .59 | .19 |
| Freedom to make life choices | .93 | .63 | .35 | .11 |
| Generosity | .14 | .05 | .06 | .02 |
| Perceptions of corruption | .35 | .71 | .2 | .06 |
| Total explained difference in happiness | | | 3.06 | 1 |
| Total difference in happiness | | | 4.15 | |

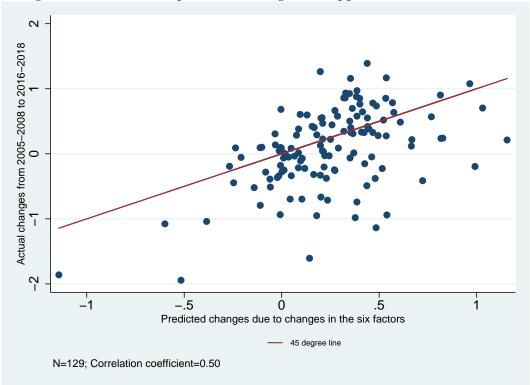
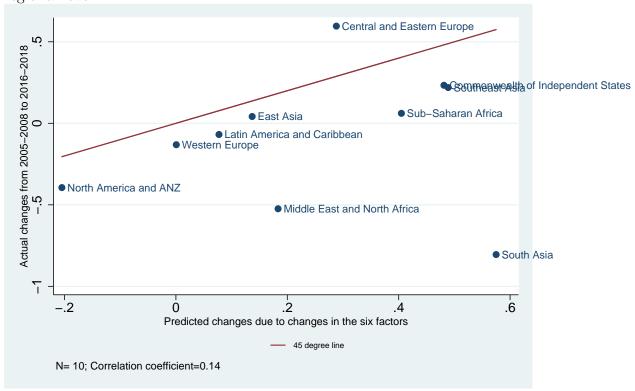


Figure 41: Actual and predicted changes in happiness from 2005-08 to 2016-18

Note: Defining predicted changes in happiness due to changes in the six factors: Step 1. Take periodical averages (2005-08 and 2016-18, respectively) of the six factors in the survey data. Step 2. Take difference between the two periods for each of the factors. Step 3. Multiply the differences with corresponding coefficients on the factors in Table 2.1. Step 4. Take the summation of the products from the previous step. The resulted sum is predicted change in ladder due to changes in the six factors.

Figure 42: Actual and predicted changes in happiness from 2005-08 to 2016-18 at the regional level



Note: This plot at the regional level shows weighted averages of the actual and predicted changes shown in figure 41. The weights for deriving the regional averages are average population from 2005 to 2016.

Table 18: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for the full world sample

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.504 | 5.418 | |
| Logged GDP per capita | 9.32 | 9.141 | .057 |
| Social support | .813 | .813 | 0 |
| Healthy life expectancy | 64.706 | 61.613 | .102 |
| Freedom to make life choices | .779 | .702 | .089 |
| Generosity | 008 | .014 | 014 |
| Perceptions of corruption | .74 | .762 | .012 |
| Sum of explained changes in happiness | | | .246 |
| Total changes in happiness | | | .086 |

Note:

Table 19: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for the top 10 countries/territories in terms of happiness changes

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.384 | 4.317 | |
| Logged GDP per capita | 8.712 | 8.464 | .079 |
| Social support | .777 | .735 | .1 |
| Healthy life expectancy | 61.118 | 57.513 | .119 |
| Freedom to make life choices | .764 | .648 | .136 |
| Generosity | 026 | 036 | .006 |
| Perceptions of corruption | .796 | .861 | .035 |
| Sum of explained changes in happiness | | | .475 |
| Total changes in happiness | | | 1.067 |

Note: The following countries/territories are in this group: Benin, Bulgaria, Cameroon, Ecuador, Latvia, Nicaragua, Sierra Leone, Slovakia, Togo, Uzbekistan,

Table 20: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for the bottom 10 countries/territories in terms of happiness changes

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 3.818 | 5.066 | |
| Logged GDP per capita | 8.448 | 8.35 | .031 |
| Social support | .639 | .722 | 201 |
| Healthy life expectancy | 59.244 | 55.157 | .135 |
| Freedom to make life choices | .701 | .744 | 05 |
| Generosity | 038 | 021 | 011 |
| Perceptions of corruption | .727 | .733 | .003 |
| Sum of explained changes in happiness | | | 093 |
| Total changes in happiness | | | -1.247 |

Note: The following countries/territories are in this group: Botswana, Central African Republic, Egypt, Greece, India, Malawi, Rwanda, Syria, Tanzania, Venezuela,

Table 21: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Western Europe

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 6.897 | 7.023 | |
| Logged GDP per capita | 10.648 | 10.617 | .01 |
| Social support | .918 | .934 | 041 |
| Healthy life expectancy | 72.672 | 70.981 | .056 |
| Freedom to make life choices | .846 | .86 | 016 |
| Generosity | .041 | .115 | 047 |
| Perceptions of corruption | .534 | .585 | .028 |
| Sum of explained changes in happiness | | | 011 |
| Total changes in happiness | | | 126 |

Note: The following countries/territories are in this group: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom,

Table 22: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Central and Eastern Europe

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.777 | 5.206 | |
| Logged GDP per capita | 9.923 | 9.704 | .07 |
| Social support | .869 | .871 | 005 |
| Healthy life expectancy | 67.869 | 65.492 | .078 |
| Freedom to make life choices | .744 | .606 | .161 |
| Generosity | 095 | 093 | 001 |
| Perceptions of corruption | .868 | .893 | .013 |
| Sum of explained changes in happiness | | | .316 |
| Total changes in happiness | | | .571 |

Note: The following countries/territories are in this group: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia,

Table 23: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Commonwealth of Independent States

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.257 | 4.961 | |
| Logged GDP per capita | 9.112 | 8.832 | .089 |
| Social support | .834 | .804 | .073 |
| Healthy life expectancy | 64.642 | 61.469 | .104 |
| Freedom to make life choices | .743 | .657 | .1 |
| Generosity | 051 | 176 | .079 |
| Perceptions of corruption | .757 | .806 | .027 |
| Sum of explained changes in happiness | | | .472 |
| Total changes in happiness | | | .296 |

Note: The following countries/territories are in this group: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine, Uzbekistan,

Table 24: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Southeast Asia

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.388 | 5.351 | |
| Logged GDP per capita | 9.408 | 9.006 | .128 |
| Social support | .824 | .808 | .039 |
| Healthy life expectancy | 65.211 | 62.511 | .089 |
| Freedom to make life choices | .907 | .818 | .103 |
| Generosity | .127 | .196 | 044 |
| Perceptions of corruption | .724 | .733 | .005 |
| Sum of explained changes in happiness | | | .319 |
| Total changes in happiness | | | .037 |

Note: The following countries/territories are in this group: Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam,

Table 25: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for South Asia

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 4.434 | 4.576 | |
| Logged GDP per capita | 8.356 | 7.961 | .126 |
| Social support | .69 | .628 | .151 |
| Healthy life expectancy | 60.654 | 57.497 | .104 |
| Freedom to make life choices | .759 | .637 | .142 |
| Generosity | .037 | .106 | 044 |
| Perceptions of corruption | .791 | .854 | .034 |
| Sum of explained changes in happiness | | | .513 |
| Total changes in happiness | | | 142 |

Note: The following countries/territories are in this group: Afghanistan, Bangladesh, India, Nepal, Pakistan, Sri Lanka,

Table 26: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for East Asia

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.789 | 5.468 | |
| Logged GDP per capita | 10.411 | 10.172 | .076 |
| Social support | .873 | .856 | .041 |
| Healthy life expectancy | 71.166 | 69.241 | .063 |
| Freedom to make life choices | .731 | .723 | .01 |
| Generosity | .011 | .005 | .004 |
| Perceptions of corruption | .712 | .731 | .01 |
| Sum of explained changes in happiness | | | .205 |
| Total changes in happiness | | | .32 |

Note: The following countries/territories are in this group: Hong Kong S.A.R. of China, Japan, Mongolia, South Korea, Taiwan Province of China,

Table 27: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Latin America and Caribbean

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.954 | 5.772 | |
| Logged GDP per capita | 9.304 | 9.134 | .054 |
| Social support | .859 | .863 | 011 |
| Healthy life expectancy | 66.507 | 64.044 | .081 |
| Freedom to make life choices | .816 | .73 | .101 |
| Generosity | 069 | .016 | 054 |
| Perceptions of corruption | .807 | .808 | .001 |
| Sum of explained changes in happiness | | | .171 |
| Total changes in happiness | | | .182 |

Note: The following countries/territories are in this group: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela,

Table 28: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for North America and ANZ

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 7.176 | 7.376 | |
| Logged GDP per capita | 10.699 | 10.61 | .028 |
| Social support | .932 | .955 | 056 |
| Healthy life expectancy | 72.025 | 70.709 | .043 |
| Freedom to make life choices | .906 | .913 | 008 |
| Generosity | .186 | .269 | 053 |
| Perceptions of corruption | .429 | .444 | .008 |
| Sum of explained changes in happiness | | | 036 |
| Total changes in happiness | | | 2 |

Note: The following countries/territories are in this group: Australia, Canada, New Zealand, United States,

Table 29: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Middle East and North Africa

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 5.262 | 5.609 | |
| Logged GDP per capita | 9.809 | 9.771 | .012 |
| Social support | .778 | .801 | 055 |
| Healthy life expectancy | 64.654 | 63.625 | .034 |
| Freedom to make life choices | .704 | .626 | .09 |
| Generosity | 03 | 048 | .011 |
| Perceptions of corruption | .749 | .704 | 024 |
| Sum of explained changes in happiness | | | .068 |
| Total changes in happiness | | | 347 |

Note: The following countries/territories are in this group: Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Palestinian Territories, Saudi Arabia, Syria, Turkey, United Arab Emirates,

Table 30: Decomposing changes in happiness from 2005-2008 to 2016-2018, equal weight for each country/territory, for Sub-Saharan Africa

| | Period 2016-2018 | Period 2005-2008 | Explained changes in happiness due to |
|---------------------------------------|---------------------|---------------------|---------------------------------------|
| Happiness | 4.233 | 4.216 | |
| Logged GDP per capita | 7.717 | 7.549 | .053 |
| Social support | .676 | .679 | 009 |
| Healthy life expectancy | 54.521 | 48.088 | .212 |
| Freedom to make life choices | .732 | .634 | .114 |
| Generosity | .006 | .008 | 001 |
| Perceptions of corruption | .776 | .811 | .019 |
| Sum of explained changes in happiness | | | .388 |
| Total changes in happiness | | | .017 |

Note: The following countries/territories are in this group: Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Uganda, Zambia, Zimbabwe,

Table 31: Decomposing changes in happiness from 2005-2008 to 2016-2018 by region, weighting countries/territories within a region with their population size

| | Changes in average happi- ness | Total ex- plained changes due to the six factors | Changes due to: GDP per capita | Changes due to: Social support | Changes due to: Healthy life ex- pectancy | due to: Free- dom to | Changes due to: Gen- erosity | Change due to: Percep- tions of corrup- tion |
|------------------------------------|--|--|--|---|---|----------------------------|---------------------------------------|---|
| Western Europe | 131 | .001 | .01 | 051 | .055 | 016 | 051 | .055 |
| Central and Eastern Europe | .596 | .288 | .089 | 003 | .077 | .114 | 015 | .026 |
| Commonwealth of Independent States | .233 | .481 | .051 | .065 | .134 | .099 | .103 | .029 |
| Southeast Asia | .219 | .489 | .127 | .111 | .068 | .145 | .018 | .021 |
| South Asia | 805 | .575 | .163 | .054 | .117 | .166 | .03 | .045 |
| East Asia | .042 | .137 | .044 | .002 | .056 | .01 | 007 | .032 |
| Latin America and Caribbean | 069 | .077 | .035 | 01 | .074 | .049 | 05 | 021 |
| North America and ANZ | 394 | 205 | .023 | 111 | .014 | 057 | 047 | 027 |
| Middle East and North Africa | 524 | .183 | .053 | 03 | .056 | .075 | .007 | .023 |
| Sub-Saharan Africa | .061 | .405 | .06 | 037 | .205 | .148 | .008 | .021 |

Table 32: Number of countries/territories that experienced statistically significant changes in happiness scores from 2005-2008 to 2016-2018

| | Total number of coun- tries/territories in sample | Number of significant positive changes | Number of significant negative changes |
|------------------------------------|--|--|--|
| Western Europe | 18 | 4 | 8 |
| Central and Eastern Europe | 17 | 15 | 1 |
| Commonwealth of Independent States | 11 | 8 | 2 |
| Southeast Asia | 8 | 4 | 4 |
| South Asia | 6 | 2 | 3 |
| East Asia | 6 | 4 | 1 |
| Latin America and Caribbean | 21 | 11 | 5 |
| North America and ANZ | 4 | 0 | 2 |
| Middle East and North Africa | 13 | 3 | 6 |
| Sub-Saharan Africa | 28 | 13 | 10 |

Table 33: Countries/territories by Region

| Region indicator | Country name | |
|------------------------------------|--------------------------|--|
| Western Europe | Austria | |
| Western Europe | $\operatorname{Belgium}$ | |
| Western Europe | Cyprus | |
| Western Europe | Denmark | |
| Western Europe | Finland | |
| Western Europe | France | |
| Western Europe | Germany | |
| Western Europe | Greece | |
| Western Europe | Iceland | |
| Western Europe | Ireland | |
| Western Europe | Italy | |
| Western Europe | Luxembourg | |
| Western Europe | Malta | |
| Western Europe | Netherlands | |
| Western Europe | North Cyprus | |
| Western Europe | Norway | |
| Western Europe | Portugal | |
| Western Europe | Spain | |
| Western Europe | Sweden | |
| Western Europe | Switzerland | |
| Western Europe | United Kingdom | |
| Central and Eastern Europe | Albania | |
| Central and Eastern Europe | Bosnia and Herzegovina | |
| Central and Eastern Europe | Bulgaria | |
| Central and Eastern Europe | Croatia | |
| Central and Eastern Europe | Czech Republic | |
| Central and Eastern Europe | Estonia | |
| Central and Eastern Europe | Hungary | |
| Central and Eastern Europe | Kosovo | |
| Central and Eastern Europe | Latvia | |
| Central and Eastern Europe | Lithuania | |
| Central and Eastern Europe | Macedonia | |
| Central and Eastern Europe | Montenegro | |
| Central and Eastern Europe | Poland | |
| Central and Eastern Europe | Romania | |
| Central and Eastern Europe | Serbia | |
| Central and Eastern Europe | Slovakia | |
| Central and Eastern Europe | Slovenia | |
| Commonwealth of Independent States | Armenia | |
| Commonwealth of Independent States | Azerbaijan | |
| Commonwealth of Independent States | Belarus | |
| Commonwealth of Independent States | Georgia | |

Table 34: Countries/territories by Region

| Region indicator | Country name |
|------------------------------------|---------------------------|
| Commonwealth of Independent States | Kazakhstan |
| Commonwealth of Independent States | Kyrgyzstan |
| Commonwealth of Independent States | Moldova |
| Commonwealth of Independent States | Russia |
| Commonwealth of Independent States | Tajikistan |
| Commonwealth of Independent States | Turkmenistan |
| Commonwealth of Independent States | Ukraine |
| Commonwealth of Independent States | Uzbekistan |
| Southeast Asia | Cambodia |
| Southeast Asia | Indonesia |
| Southeast Asia | Laos |
| Southeast Asia | Malaysia |
| Southeast Asia | Myanmar |
| Southeast Asia | Philippines |
| Southeast Asia | Singapore |
| Southeast Asia | Thailand |
| Southeast Asia | Vietnam |
| South Asia | Afghanistan |
| South Asia | Bangladesh |
| South Asia | Bhutan |
| South Asia | India |
| South Asia | Nepal |
| South Asia | Pakistan |
| South Asia | Sri Lanka |
| East Asia | China |
| East Asia | Hong Kong S.A.R. of China |
| East Asia | Japan |
| East Asia | Mongolia |
| East Asia | South Korea |
| East Asia | Taiwan Province of China |
| Latin America and Caribbean | Argentina |
| Latin America and Caribbean | Belize |
| Latin America and Caribbean | Bolivia |
| Latin America and Caribbean | Brazil |
| Latin America and Caribbean | Chile |
| Latin America and Caribbean | Colombia |
| Latin America and Caribbean | Costa Rica |
| Latin America and Caribbean | Cuba |
| Latin America and Caribbean | Dominican Republic |
| Latin America and Caribbean | Ecuador |
| Latin America and Caribbean | El Salvador |
| Latin America and Caribbean | Guatemala |

Table 35: Countries/territories by Region

| Region indicator | Country name | |
|------------------------------|-------------------------|--|
| Latin America and Caribbean | Guyana | |
| Latin America and Caribbean | Haiti | |
| Latin America and Caribbean | Honduras | |
| Latin America and Caribbean | Jamaica | |
| Latin America and Caribbean | Mexico | |
| Latin America and Caribbean | Nicaragua | |
| Latin America and Caribbean | Panama | |
| Latin America and Caribbean | Paraguay | |
| Latin America and Caribbean | Peru | |
| Latin America and Caribbean | Suriname | |
| Latin America and Caribbean | Trinidad and Tobago | |
| Latin America and Caribbean | Uruguay | |
| Latin America and Caribbean | Venezuela | |
| North America and ANZ | Australia | |
| North America and ANZ | Canada | |
| North America and ANZ | New Zealand | |
| North America and ANZ | United States | |
| Middle East and North Africa | Algeria | |
| Middle East and North Africa | Bahrain | |
| Middle East and North Africa | Egypt | |
| Middle East and North Africa | Iran | |
| Middle East and North Africa | Iraq | |
| Middle East and North Africa | Israel | |
| Middle East and North Africa | Jordan | |
| Middle East and North Africa | Kuwait | |
| Middle East and North Africa | Lebanon | |
| Middle East and North Africa | Libya | |
| Middle East and North Africa | Morocco | |
| Middle East and North Africa | Oman | |
| Middle East and North Africa | Palestinian Territories | |
| Middle East and North Africa | Qatar | |
| Middle East and North Africa | Saudi Arabia | |
| Middle East and North Africa | Syria | |
| Middle East and North Africa | Tunisia | |
| Middle East and North Africa | Turkey | |
| Middle East and North Africa | United Arab Emirates | |
| Middle East and North Africa | Yemen | |
| Sub-Saharan Africa | Angola | |
| Sub-Saharan Africa | Benin | |
| Sub-Saharan Africa | Botswana | |
| Sub-Saharan Africa | Burkina Faso | |
| Sub-Saharan Africa | Burundi | |

Table 36: Countries/territories by Region

| Region indicator | Country name | |
|--------------------|--------------------------|--|
| Sub-Saharan Africa | Cameroon | |
| Sub-Saharan Africa | Central African Republic | |
| Sub-Saharan Africa | Chad | |
| Sub-Saharan Africa | Comoros | |
| Sub-Saharan Africa | Congo (Brazzaville) | |
| Sub-Saharan Africa | Congo (Kinshasa) | |
| Sub-Saharan Africa | Djibouti | |
| Sub-Saharan Africa | Ethiopia | |
| Sub-Saharan Africa | Gabon | |
| Sub-Saharan Africa | Gambia | |
| Sub-Saharan Africa | Ghana | |
| Sub-Saharan Africa | Guinea | |
| Sub-Saharan Africa | Ivory Coast | |
| Sub-Saharan Africa | Kenya | |
| Sub-Saharan Africa | Lesotho | |
| Sub-Saharan Africa | Liberia | |
| Sub-Saharan Africa | Madagascar | |
| Sub-Saharan Africa | Malawi | |
| Sub-Saharan Africa | Mali | |
| Sub-Saharan Africa | Mauritania | |
| Sub-Saharan Africa | Mauritius | |
| Sub-Saharan Africa | Mozambique | |
| Sub-Saharan Africa | Namibia | |
| Sub-Saharan Africa | Niger | |
| Sub-Saharan Africa | Nigeria | |
| Sub-Saharan Africa | Rwanda | |
| Sub-Saharan Africa | Senegal | |
| Sub-Saharan Africa | Sierra Leone | |
| Sub-Saharan Africa | Somalia | |
| Sub-Saharan Africa | Somaliland region | |
| Sub-Saharan Africa | South Africa | |
| Sub-Saharan Africa | South Sudan | |
| Sub-Saharan Africa | Sudan | |
| Sub-Saharan Africa | Swaziland | |
| Sub-Saharan Africa | Tanzania | |
| Sub-Saharan Africa | Togo | |
| Sub-Saharan Africa | Uganda | |
| Sub-Saharan Africa | Zambia | |
| Sub-Saharan Africa | Zimbabwe | |