



UNIVERSITY OF
GOTHENBURG

CORRELATES OF THE ECONOMIST'S INDEX OF DEMOCRACY

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Index of Democracy

Published by the Economist Intelligence Unit the Index of Democracy is based on the ratings for 60 indicators grouped into the five following categories. Each category has a rating on a 0 to 10 scale, and the overall index of democracy is the simple average of the five variables below.

(1) **Civil Liberties**

Civil liberties include freedom of speech, expression and the press; freedom of religion; freedom of assembly and association; and the right to due judicial process.

(2) **Democratic Political Culture**

The Democratic Political Culture index measures the extent to which there is a societal consensus supporting democratic principles.

(3) **Electoral Process and Pluralism**

This category is based on indicators relating to the condition of having free and fair competitive elections, and satisfying related aspects of political freedom.

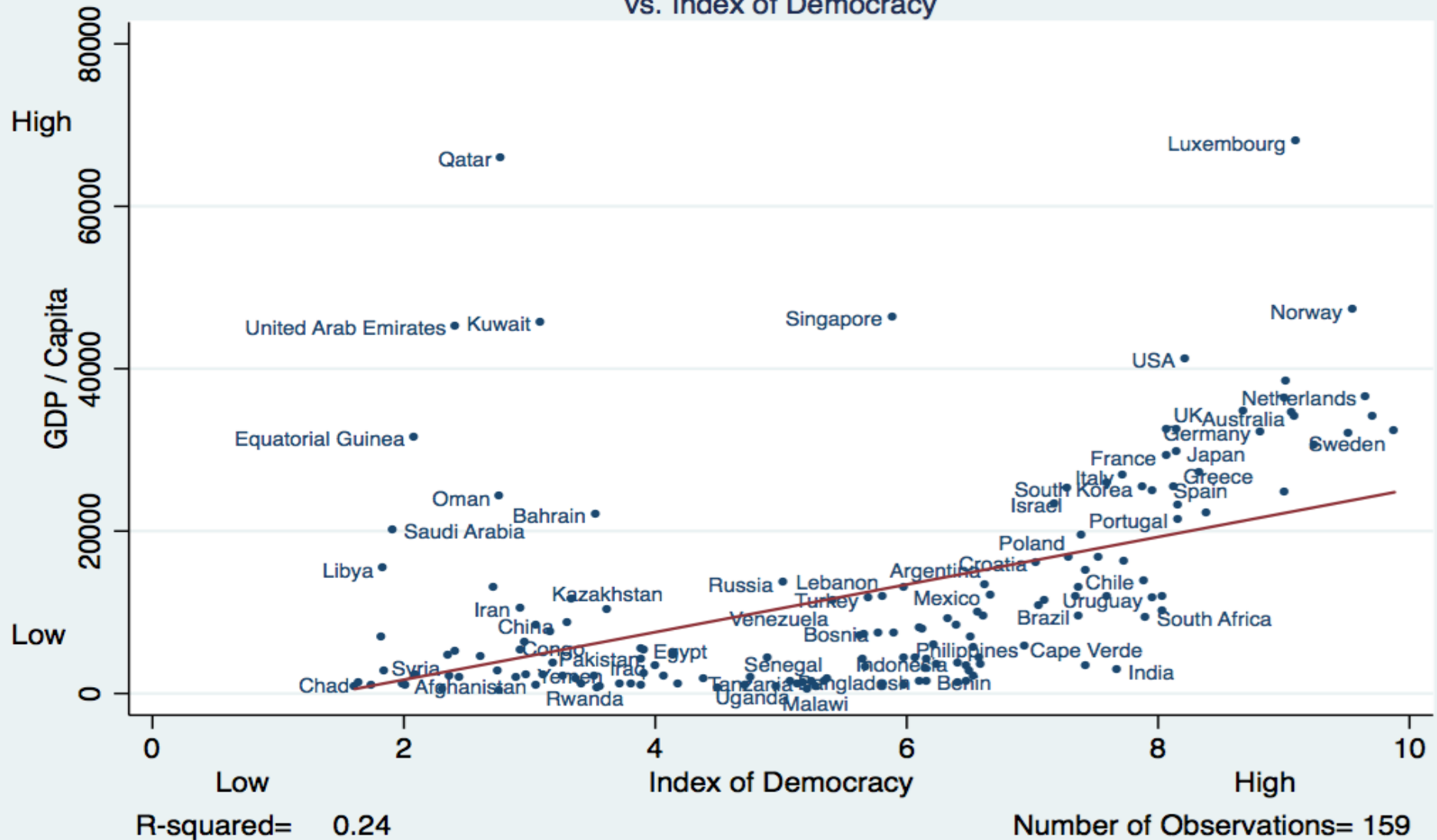
(4) **Functioning of Government**

The Functioning of Government category is based on indicators relating to e.g. the extent to which control over government is exercised by elected representatives, the capability of the civil service, and the pervasiveness of corruption.

(5) **Political Participation**

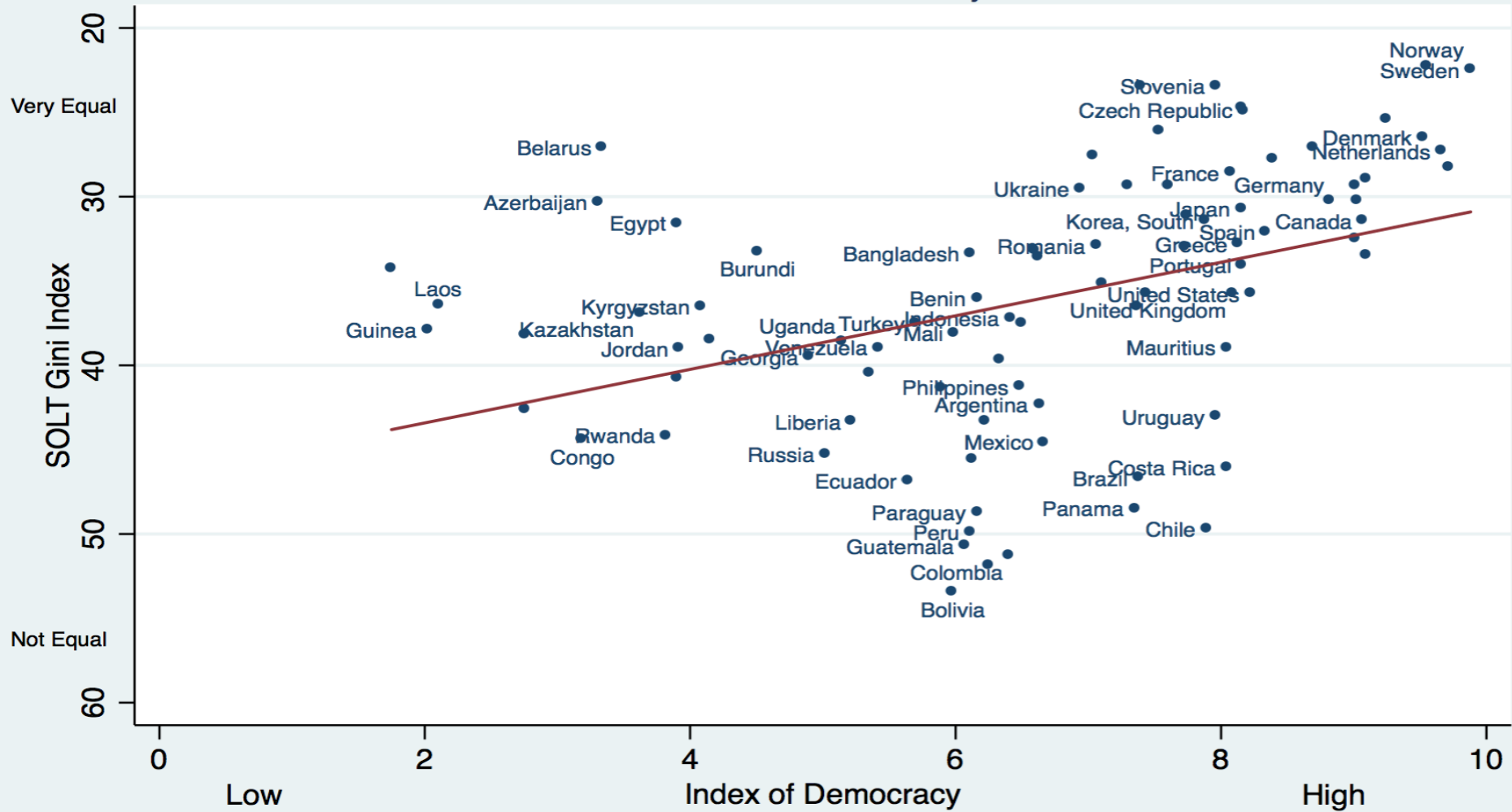
The Political Participation index measures among other things the adult literacy rate, the amount of women in parliament, and the extent to which citizens freely choose to elect representatives and join political parties.

GDP / Capita vs. Index of Democracy



Sources: Economist Intelligence Unit (Data: 2009); World Bank WDI 2013

SOLT Gini Index vs. Index of Democracy

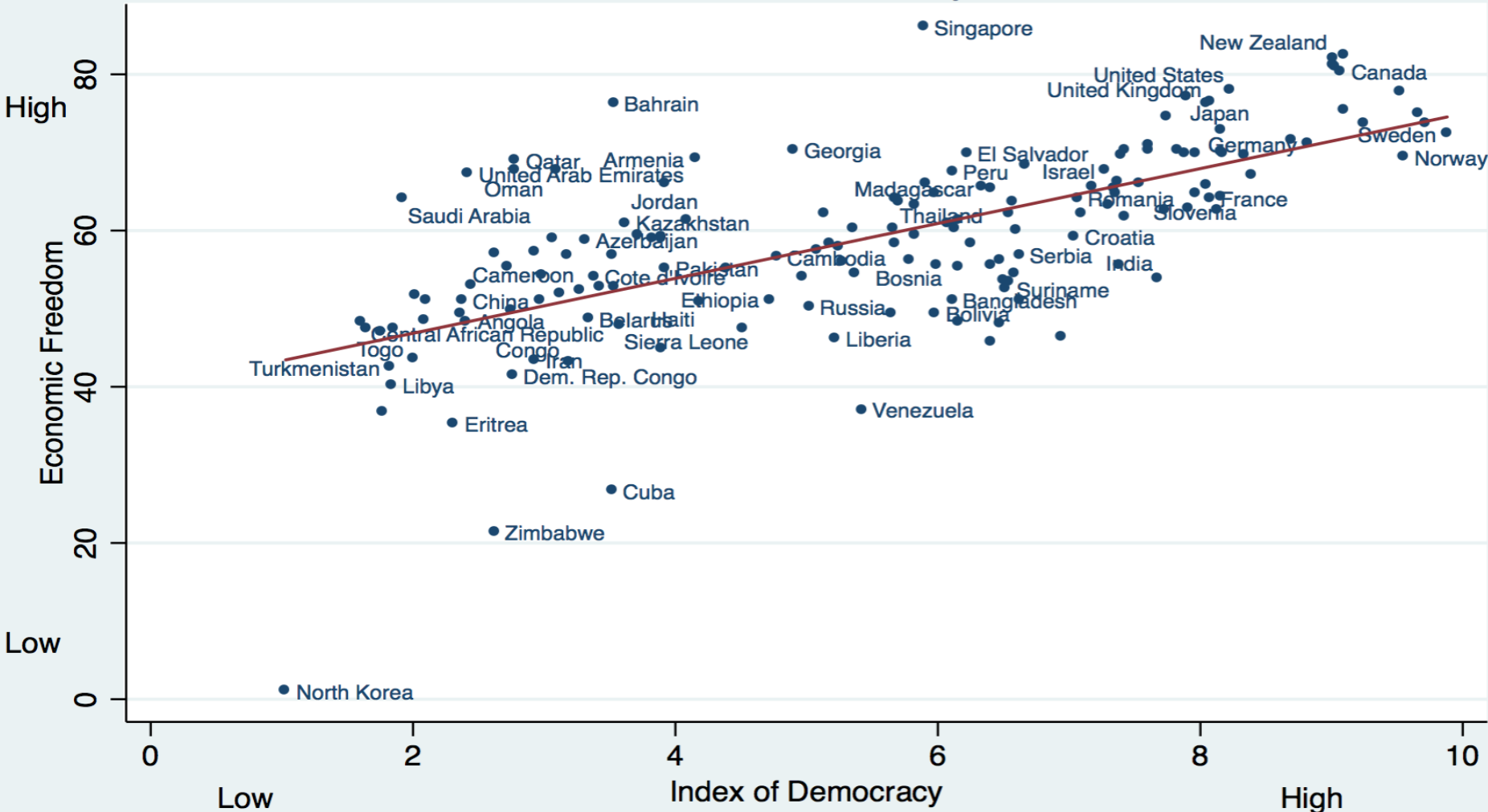


R-squared= 0.17

Number of Observations= 88

Sources: SOLT (2006-2009); Economist Intelligence Unit (Data: 2007)

Economic Freedom vs. Index of Democracy



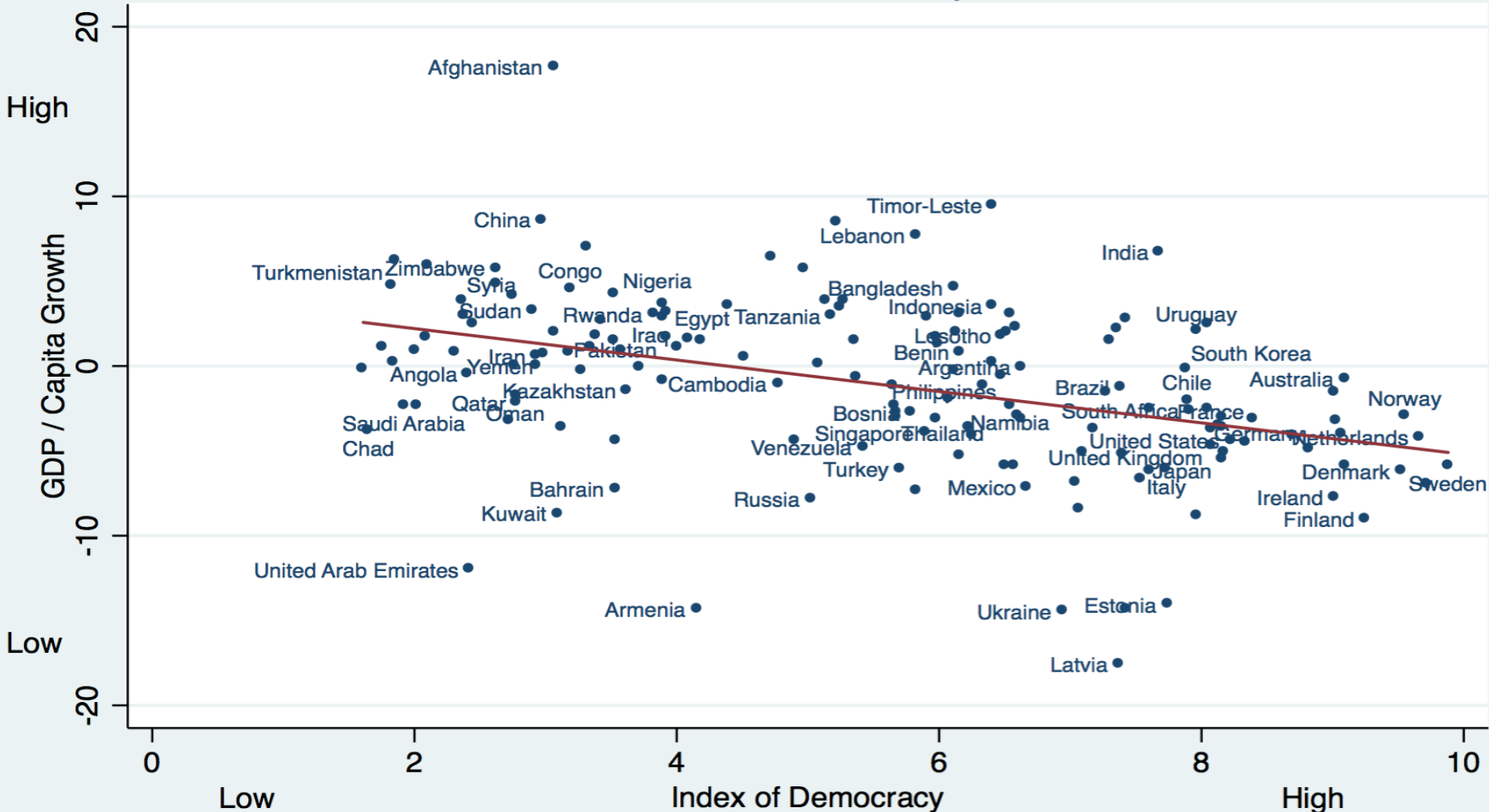
R-squared= 0.45

Number of Observations= 162

Sources: Heritage Foundation (2009); Economist Intelligence Unit (Data: 2007)

GDP / Capita Growth vs. Index of Democracy

6

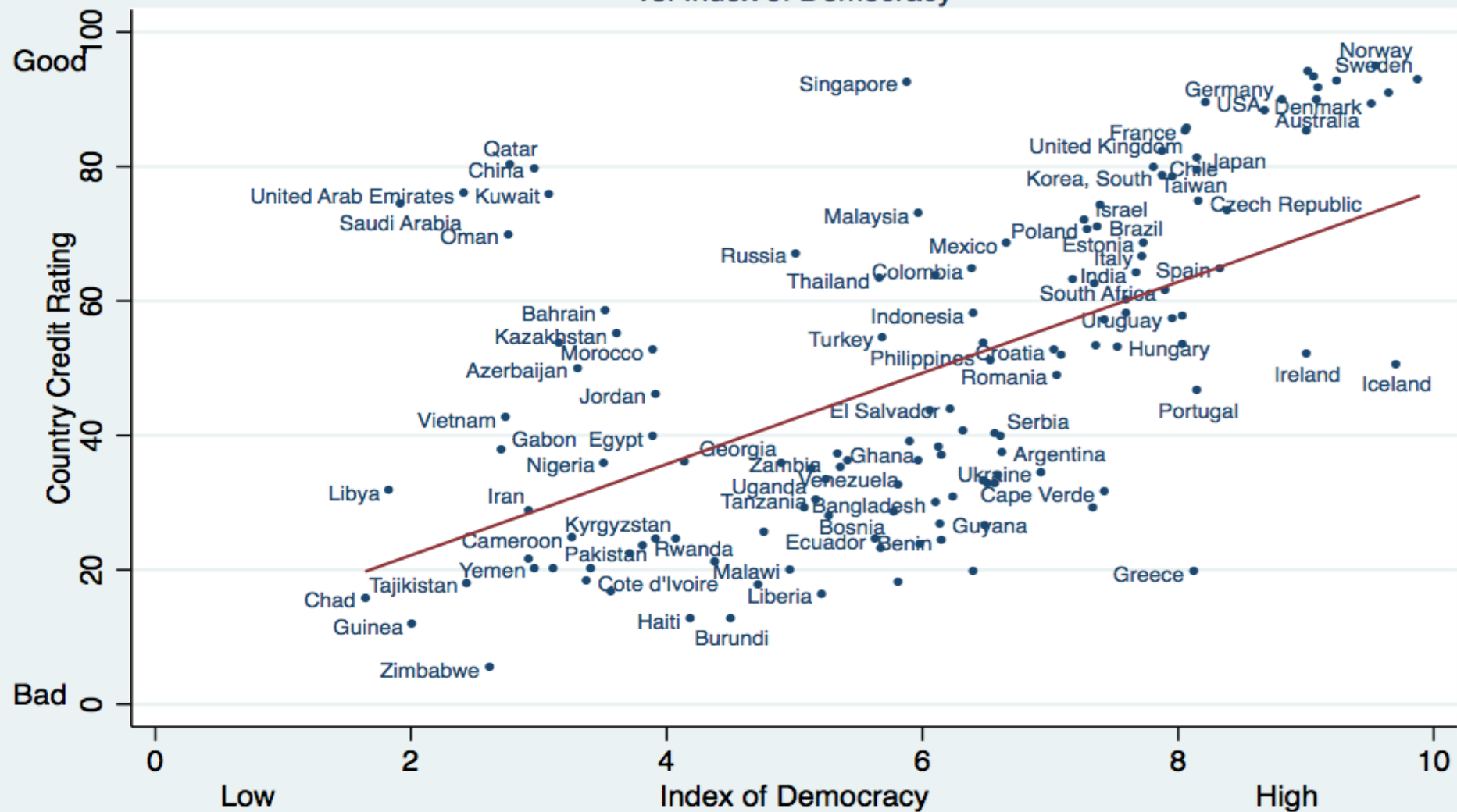


R-squared= 0.17

Number of Observations= 161

Sources: World Bank WDI 2013 (2008-2009); Economist Intelligence Unit (Data: 2007)

Country Credit Rating vs. Index of Democracy

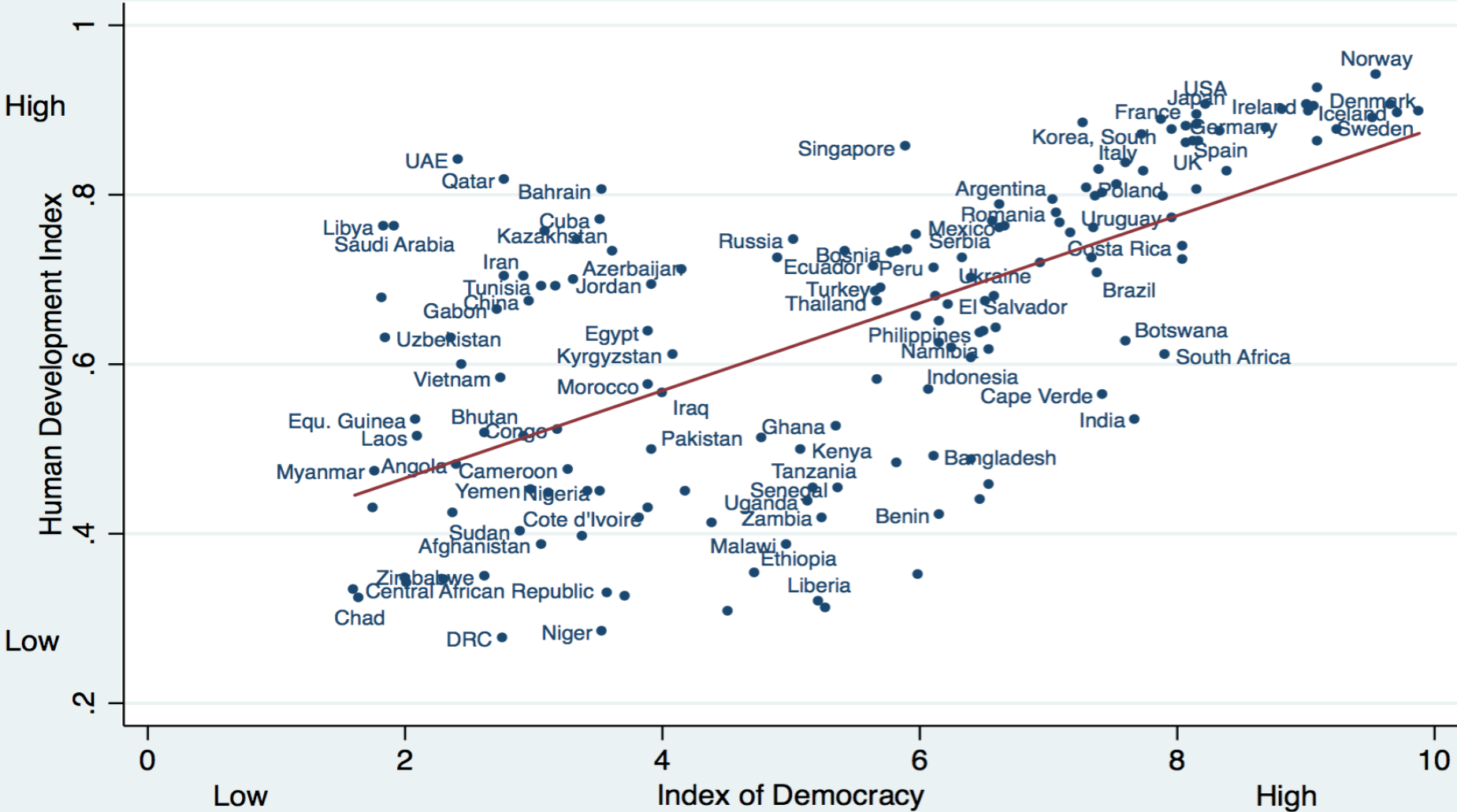


R-squared= 0.34

Number of Observations= 139

Sources: WEF (Schwab 2012), Economist Intelligence Unit (Data: 2007)

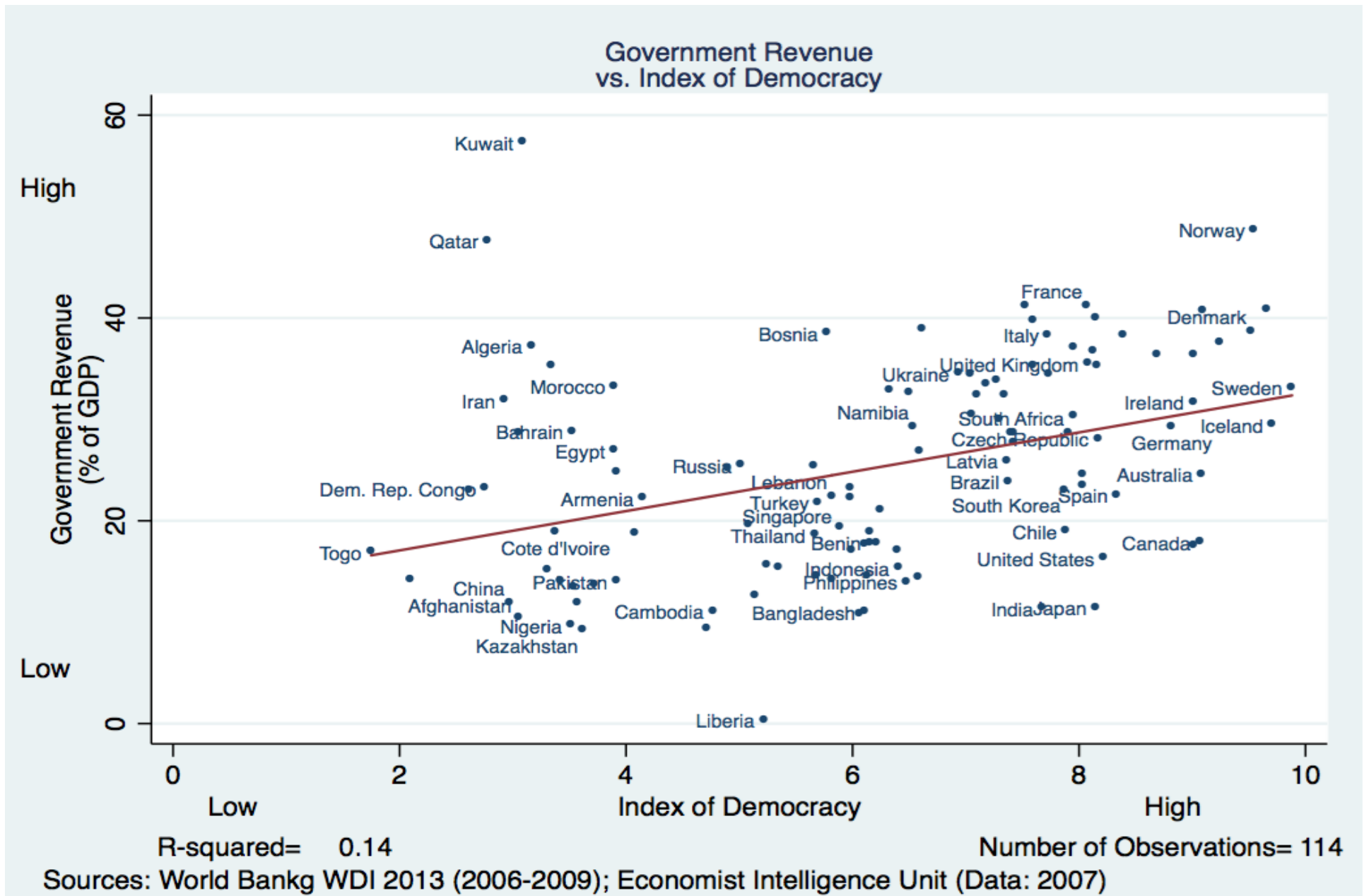
Human Development Index vs. Index of Democracy

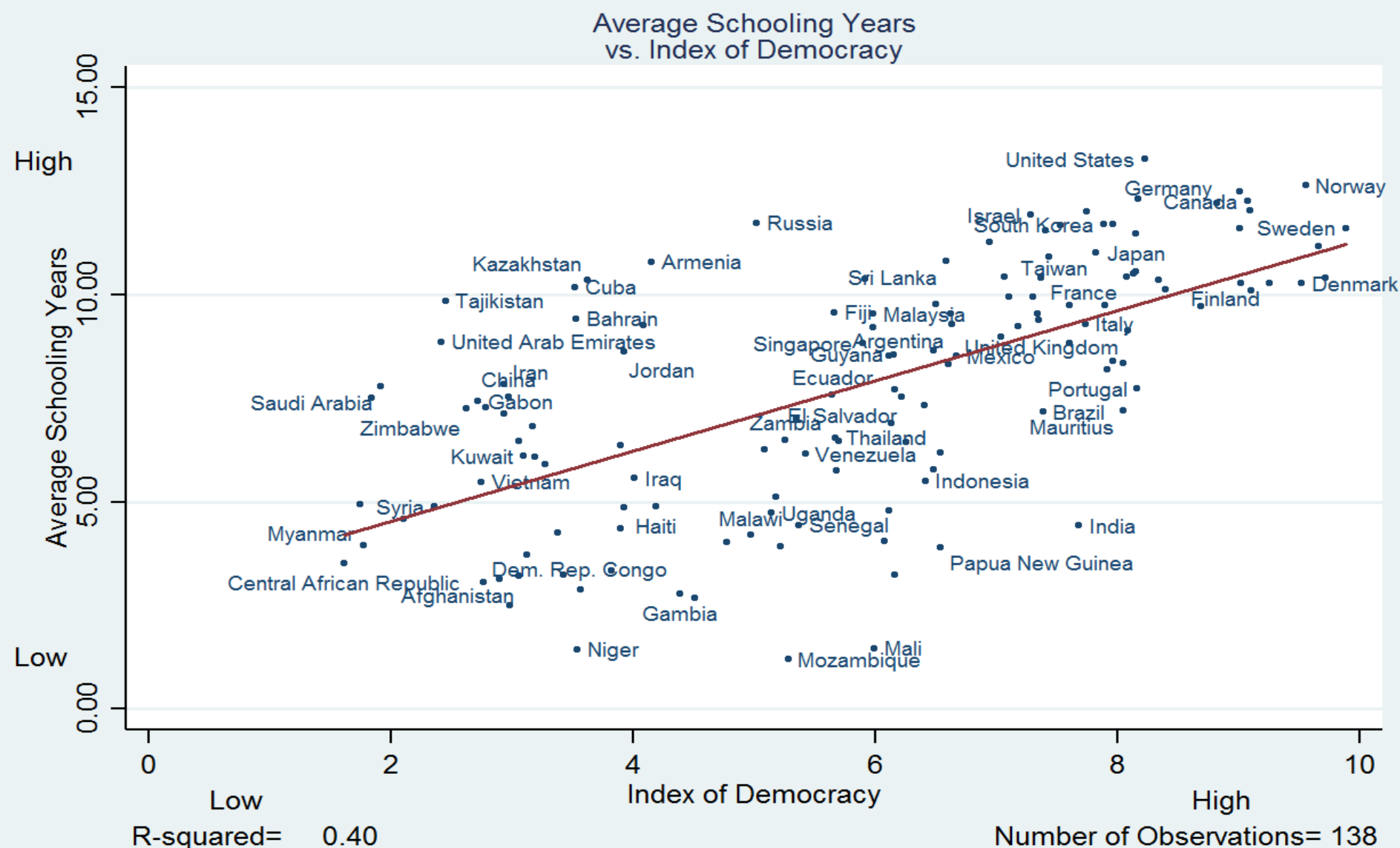


R-squared= 0.42

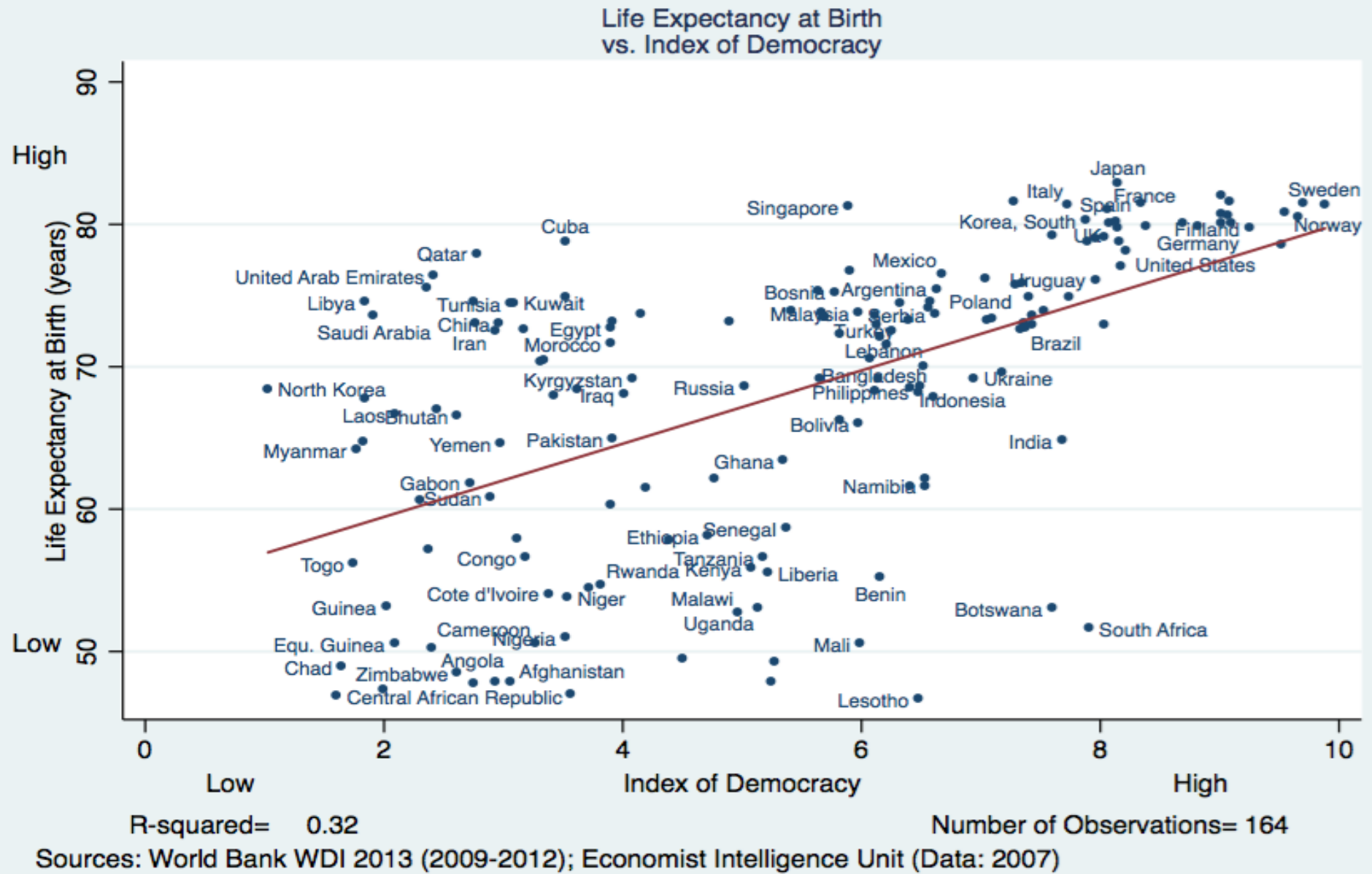
Number of Observations= 163

Sources: UNDP 2013 (2009-2010); Economist Intelligence Unit (Data: 2007)

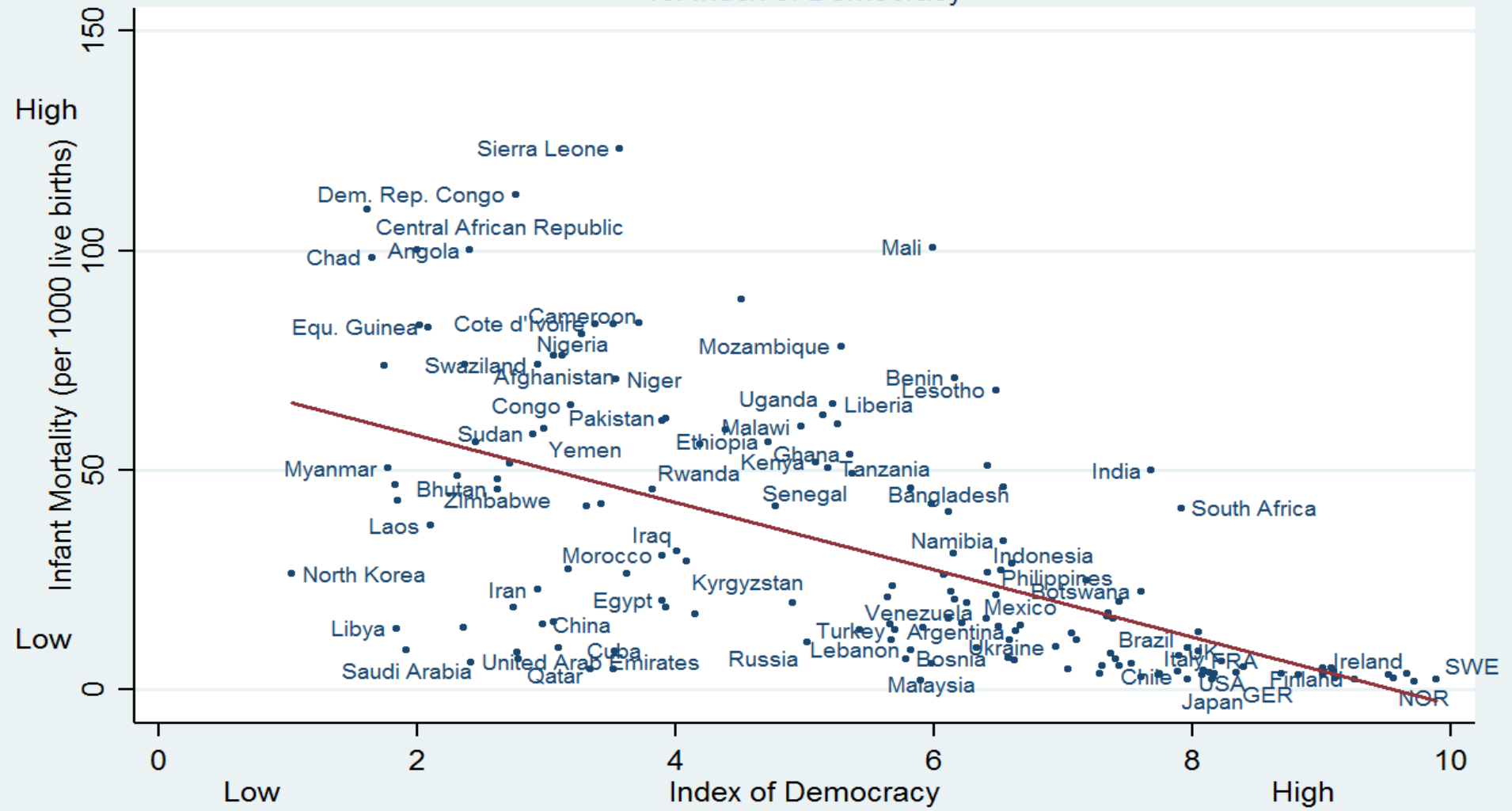




Sources: Barro & Lee (2010); Economist Intelligence Unit (Data: 2007)



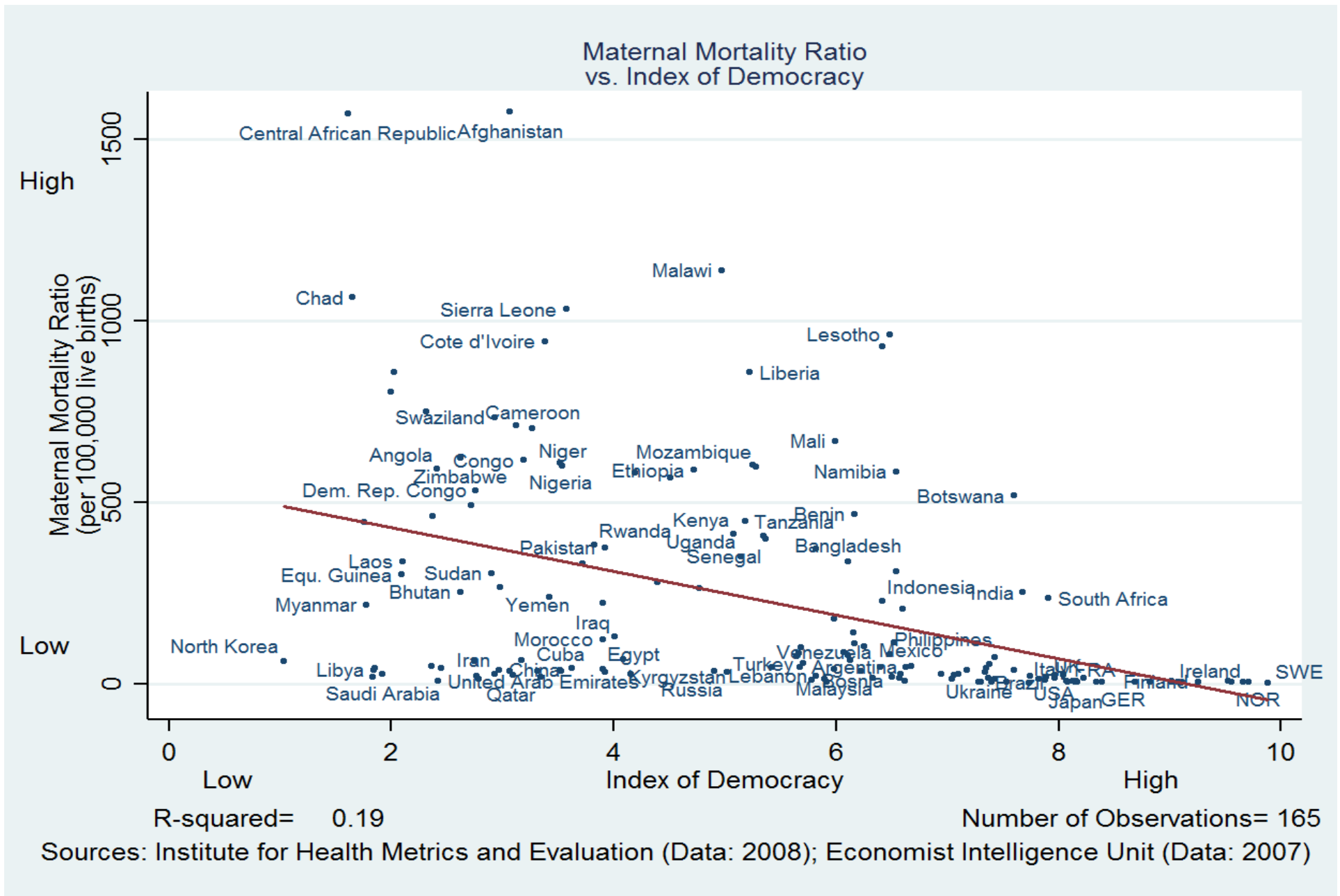
Infant Mortality vs. Index of Democracy

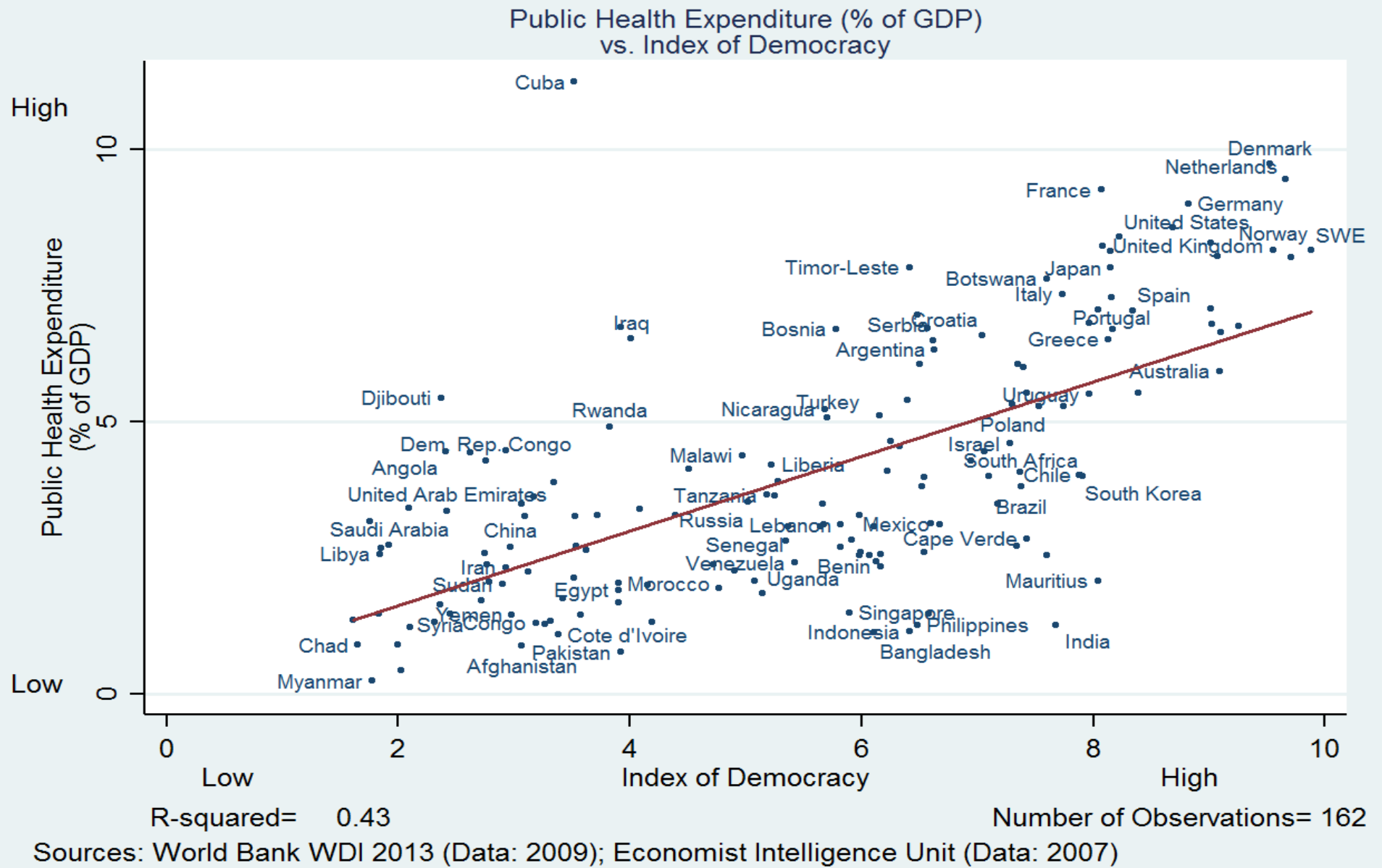


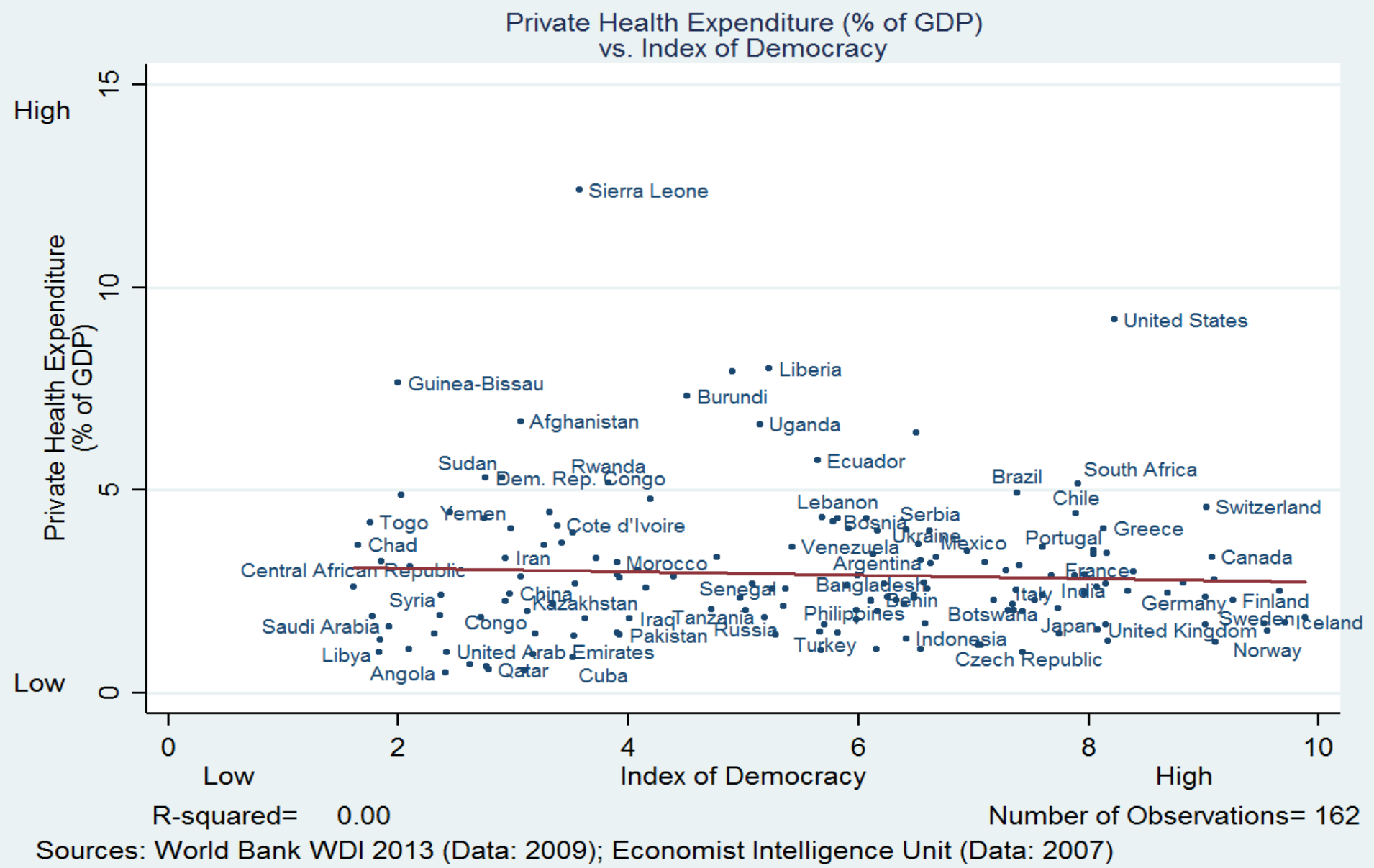
R-squared= 0.36

Number of Observations= 164

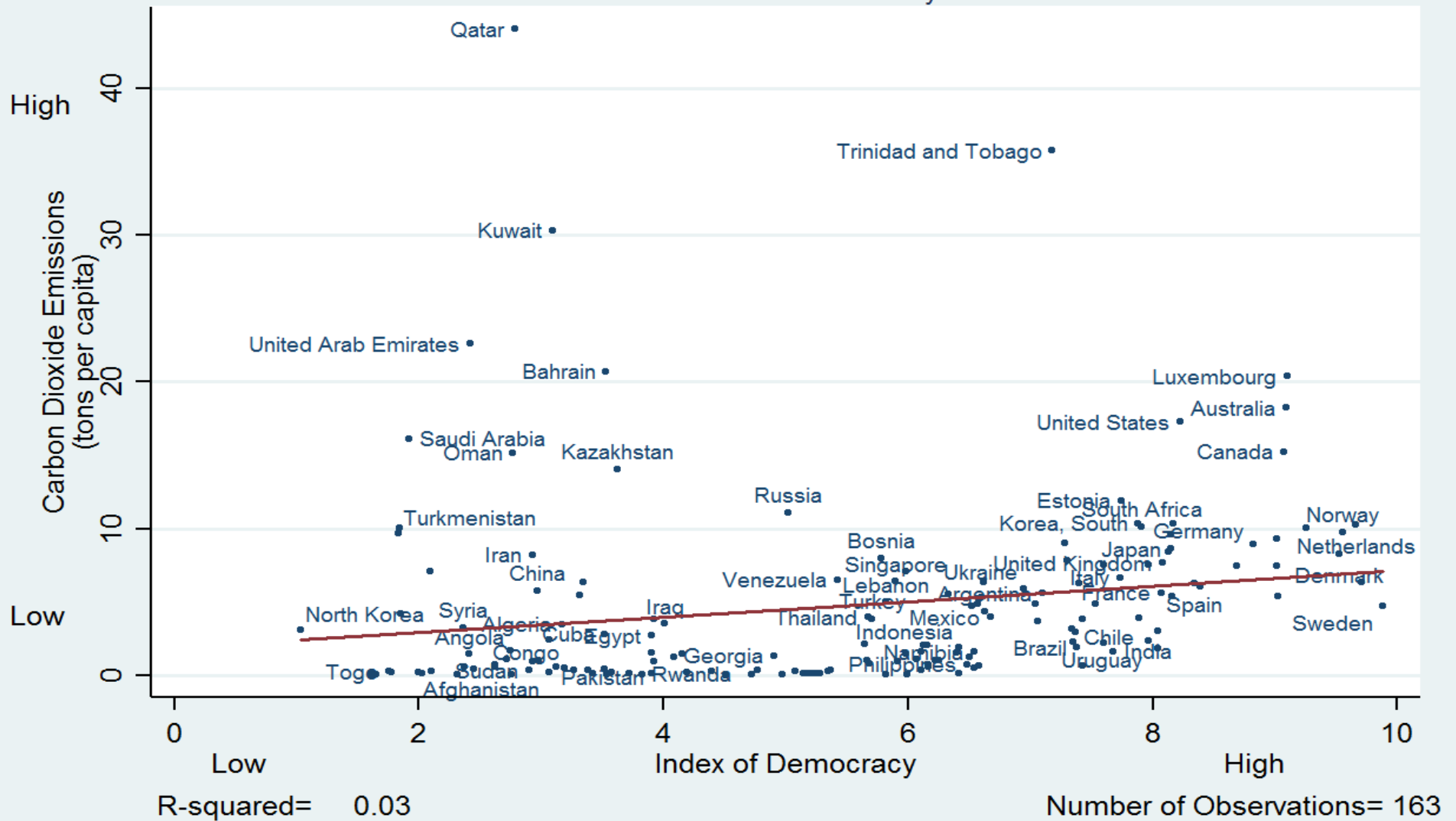
Sources: World Bank WDI 2013 (2009), Economist Intelligence Unit (Data: 2007)



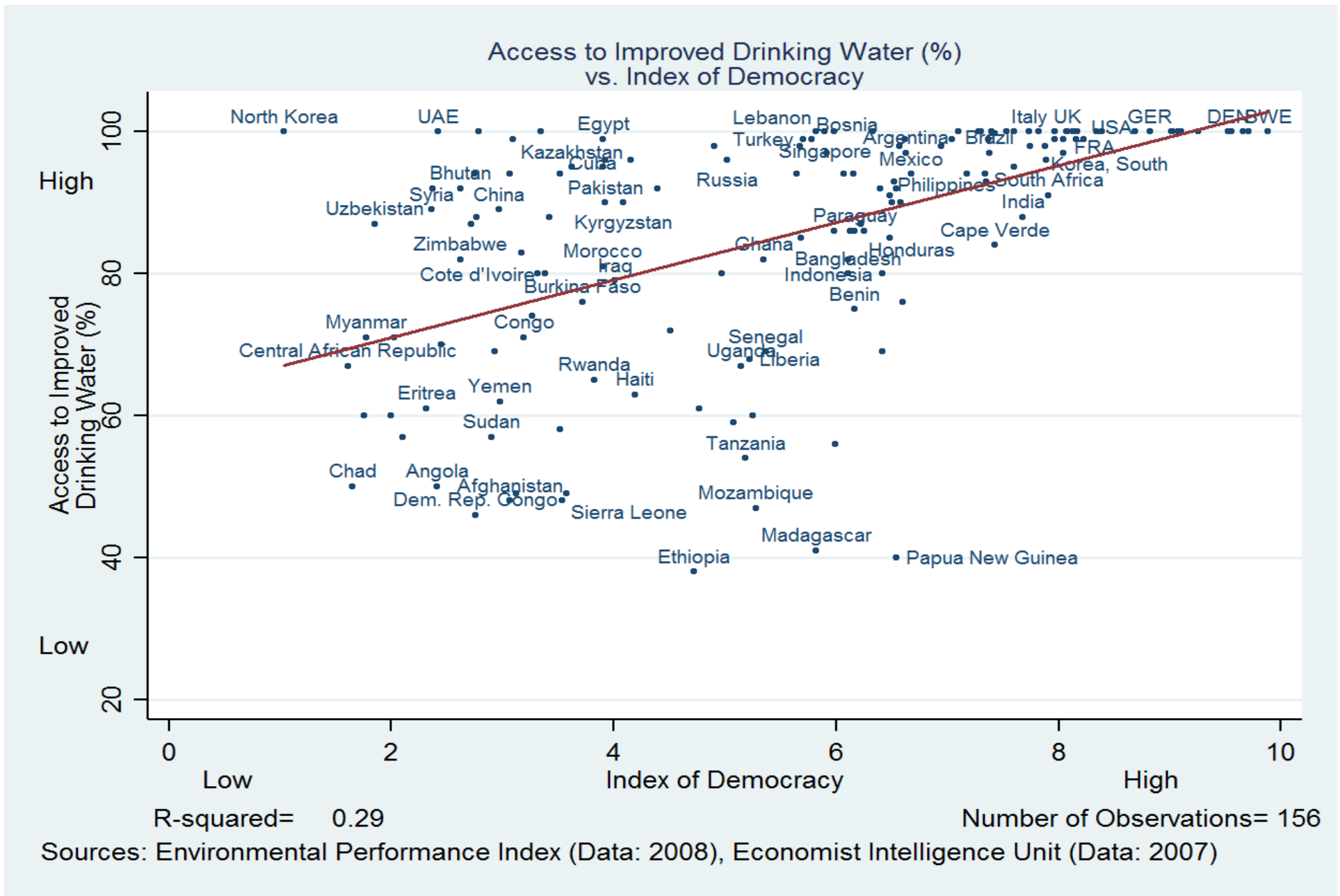


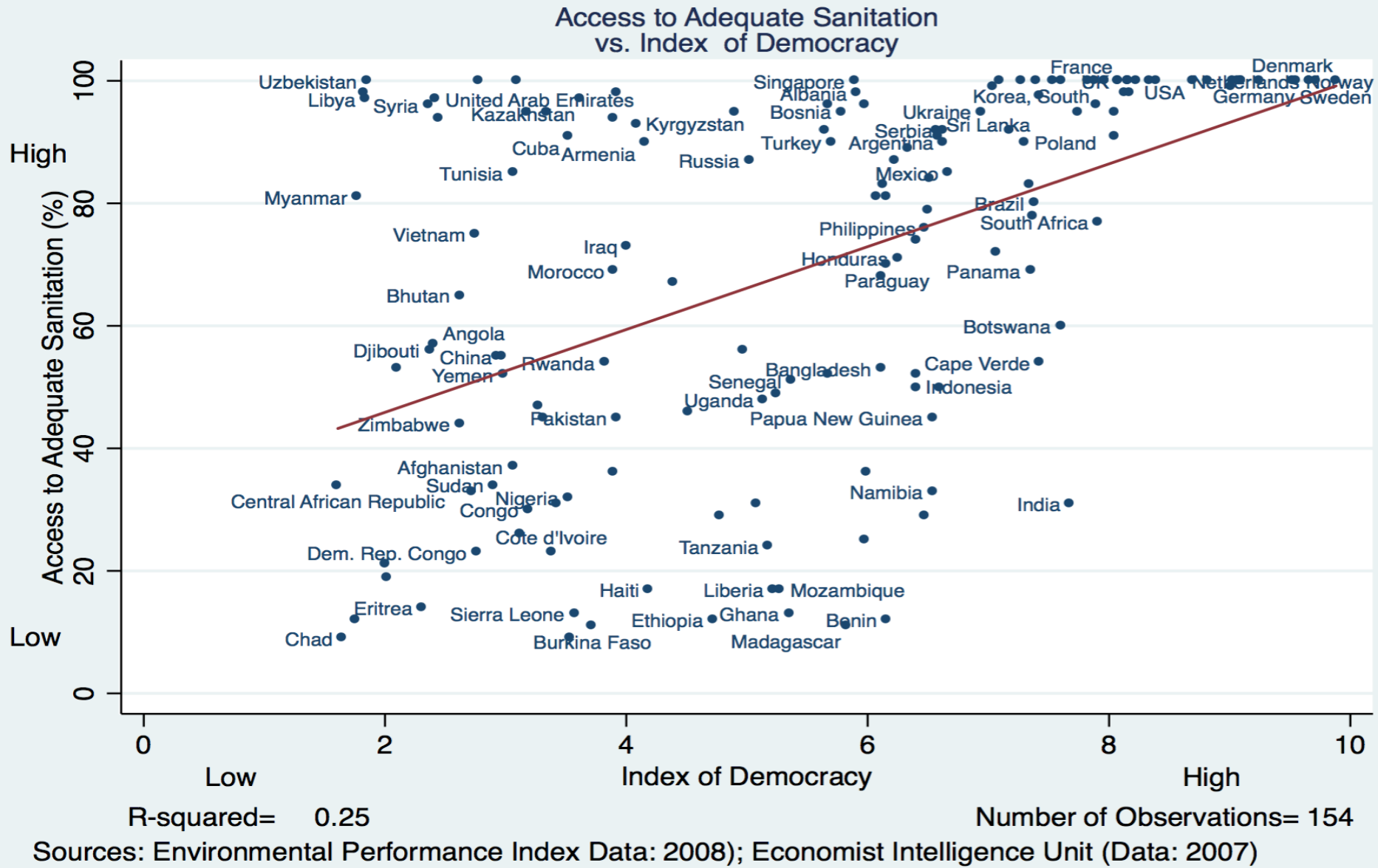


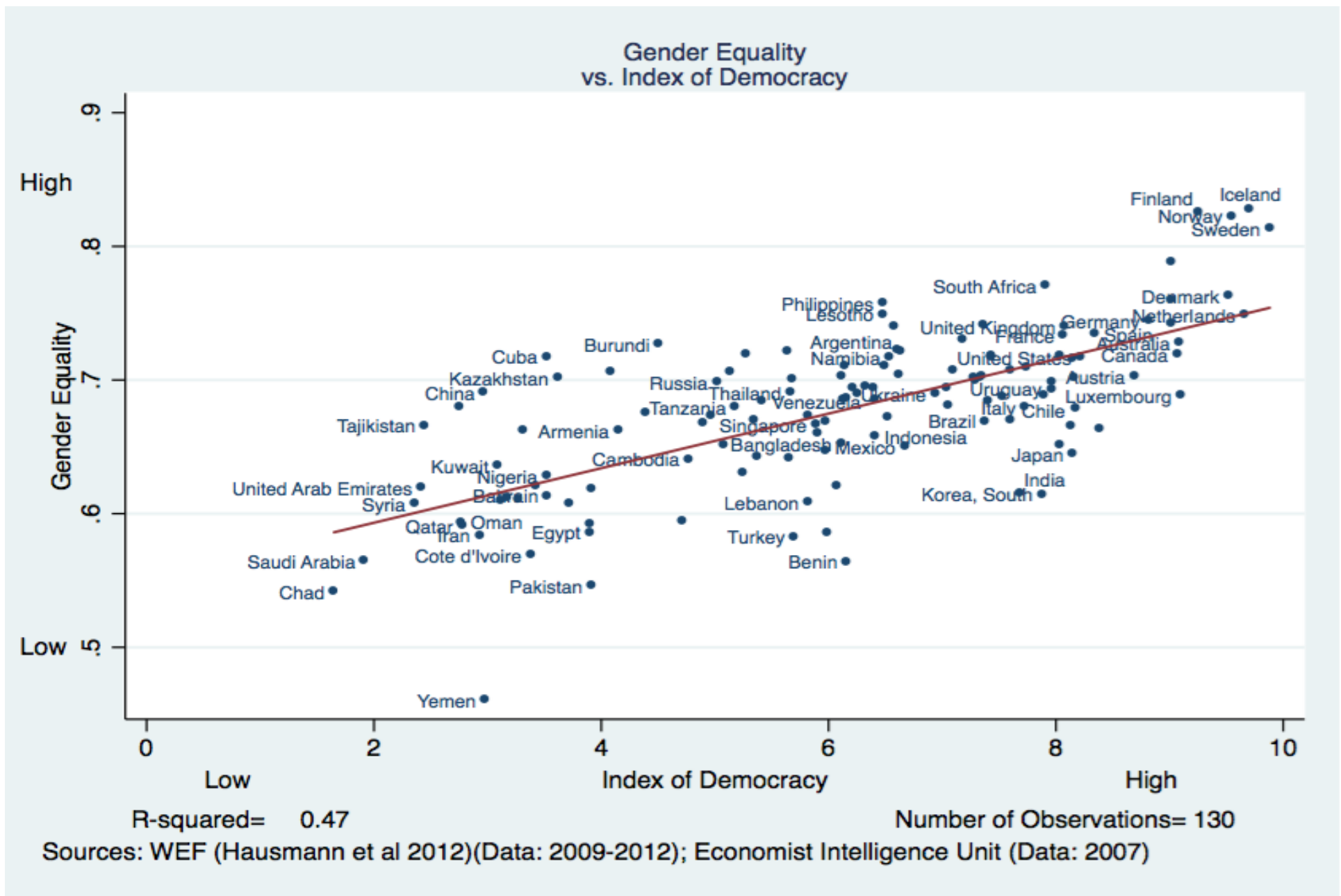
Carbon Dioxide Emissions vs. Index of Democracy



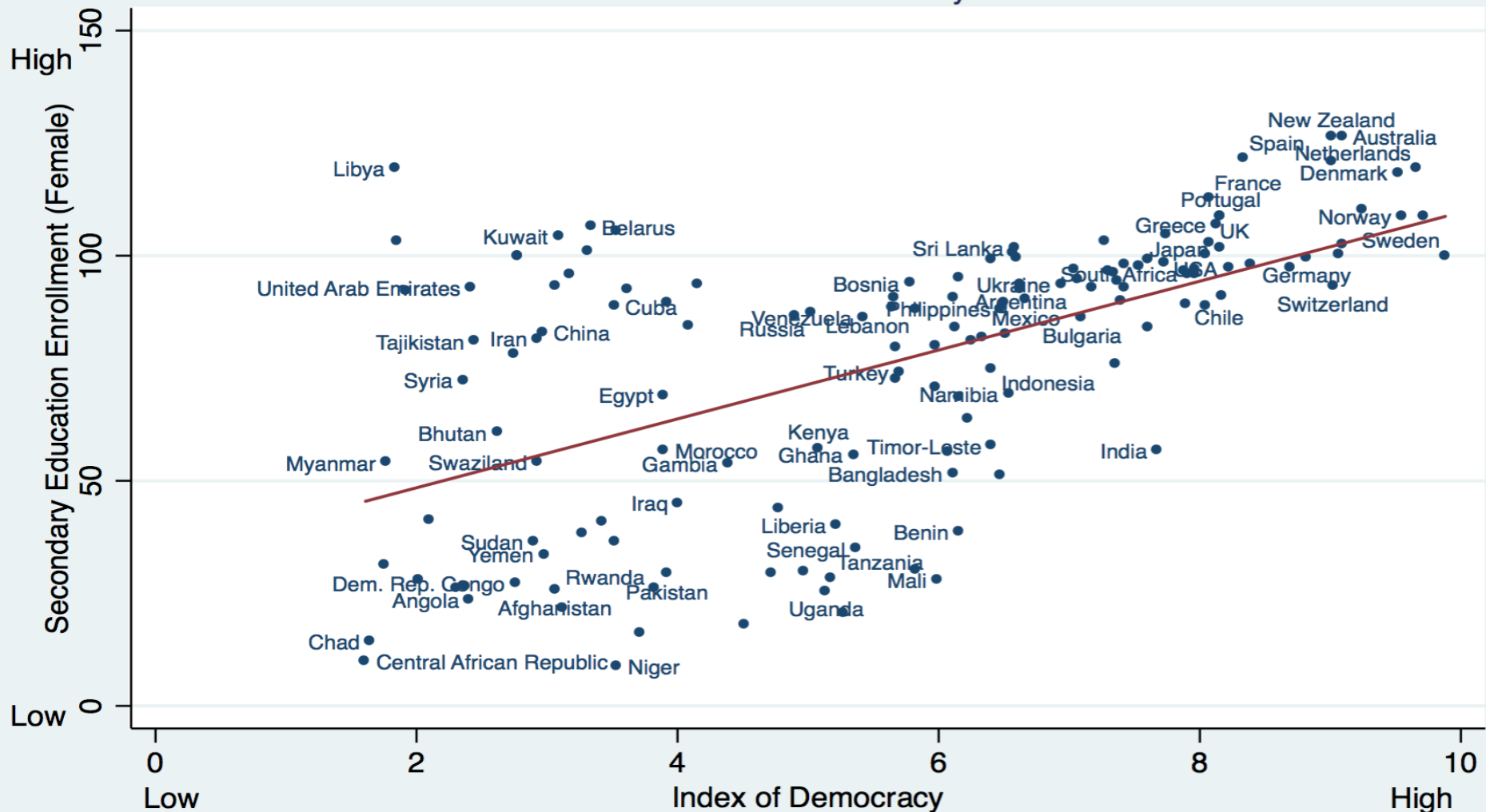
Sources: World Bank WDI 2013 (Data: 2009); Economist Intelligence Unit (Data: 2007)







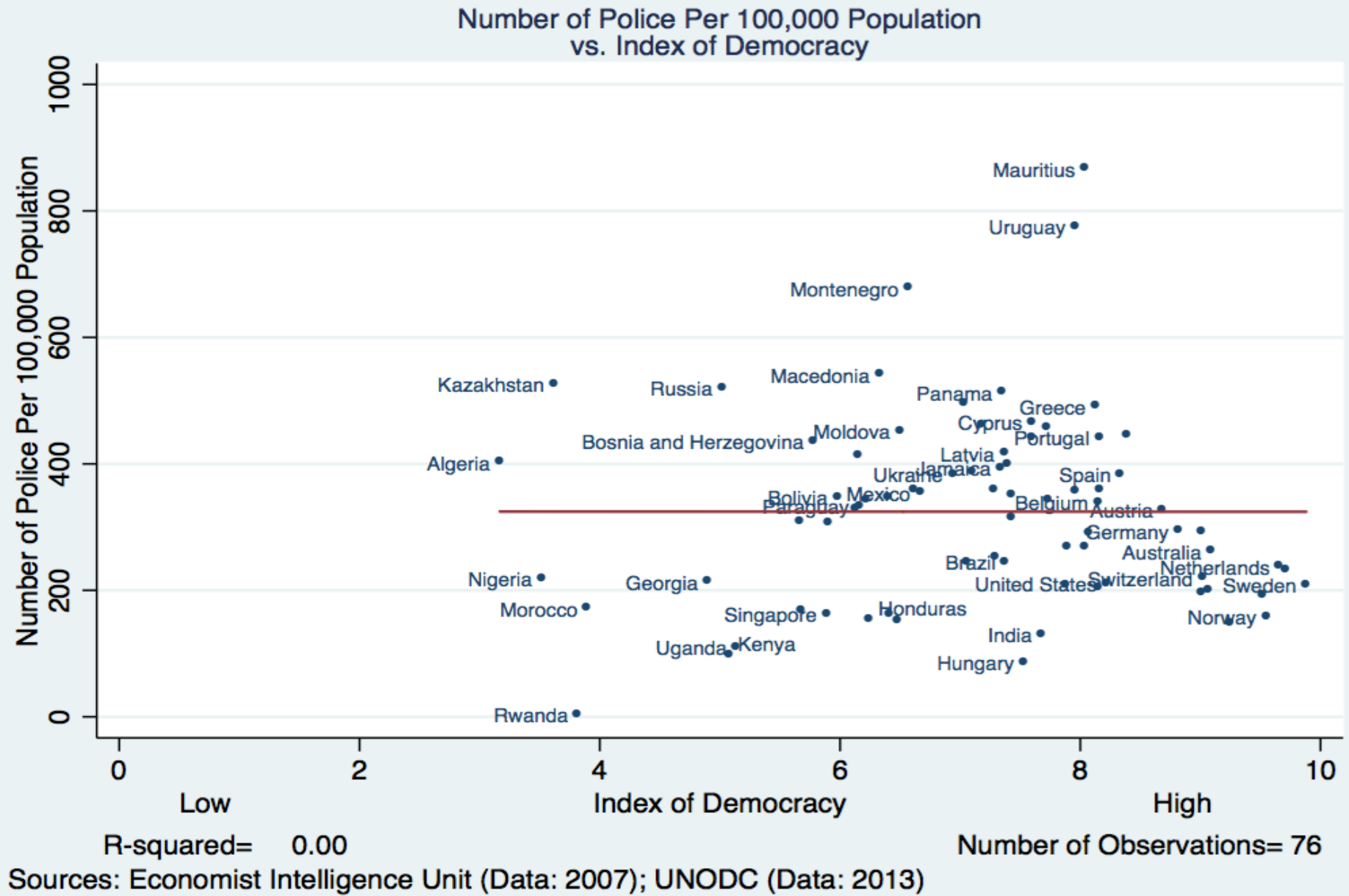
Secondary Education Enrollment (Female) vs. Index of Democracy



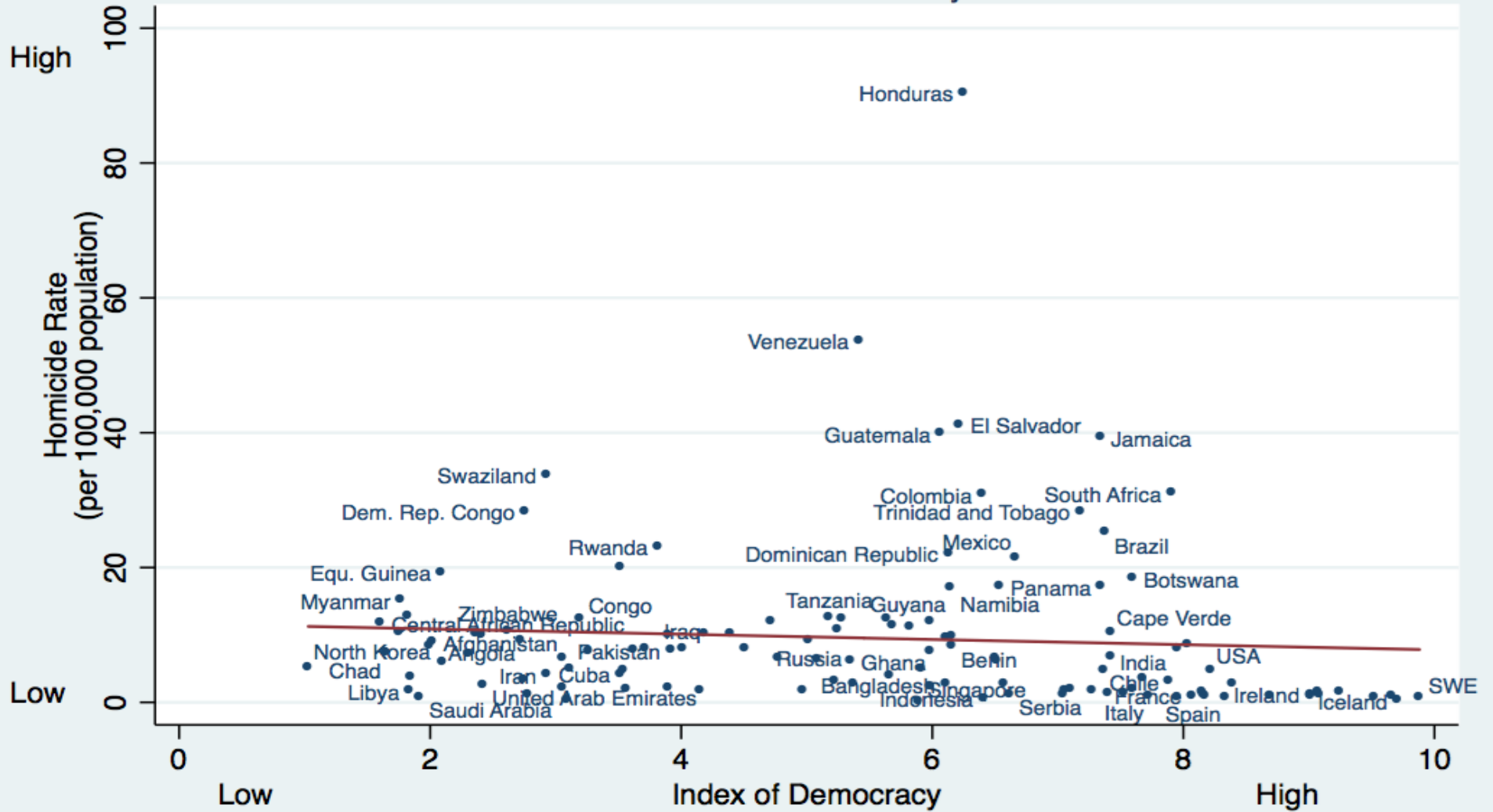
R-squared= 0.33

Number of Observations= 148

Sources: UNESCO 2012 (Data: 2006-2011); Economist Intelligence Unit (Data: 2007)



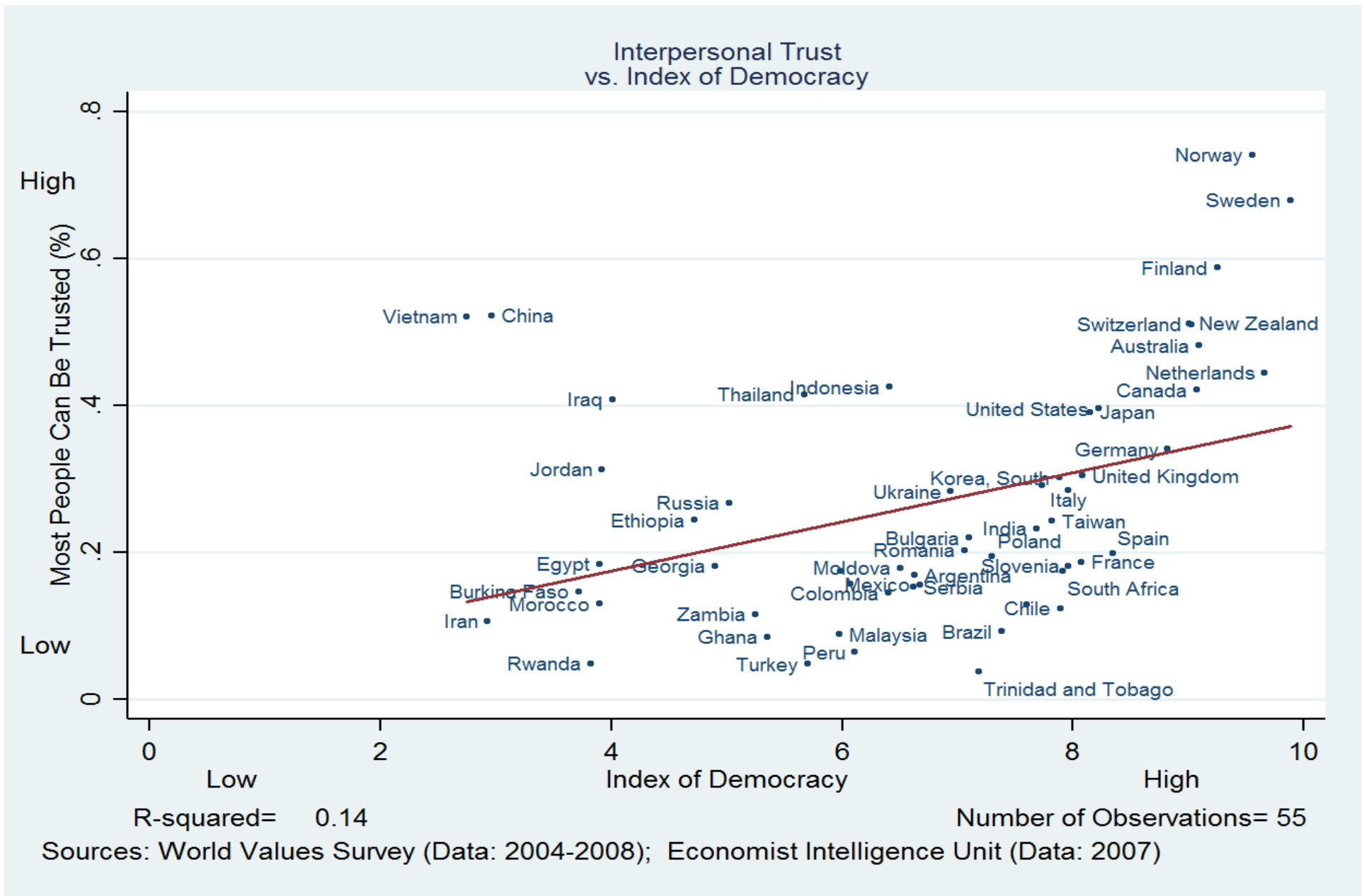
Homicide Rate vs. Index of Democracy



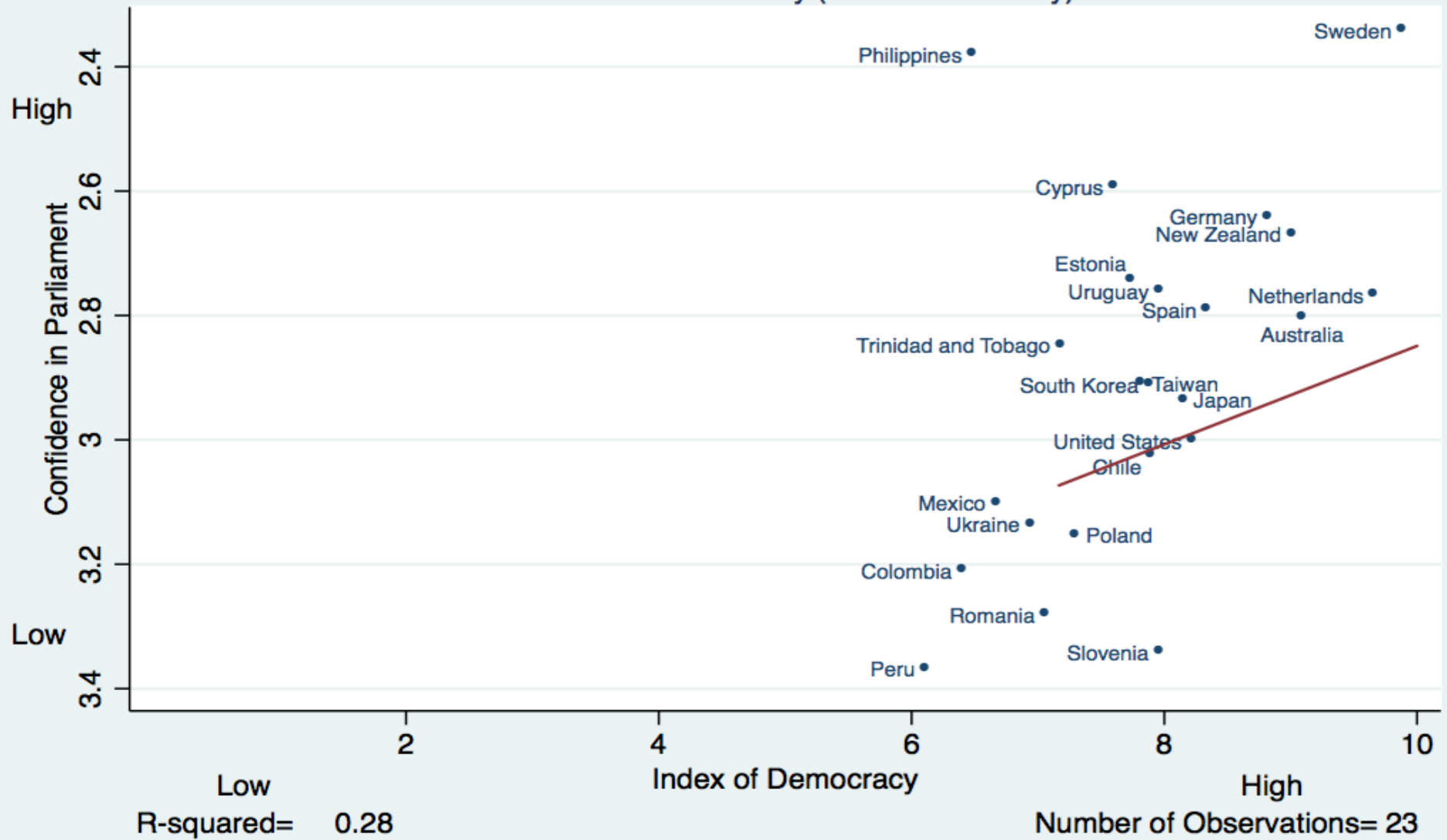
R-squared= 0.01

Number of Observations= 122

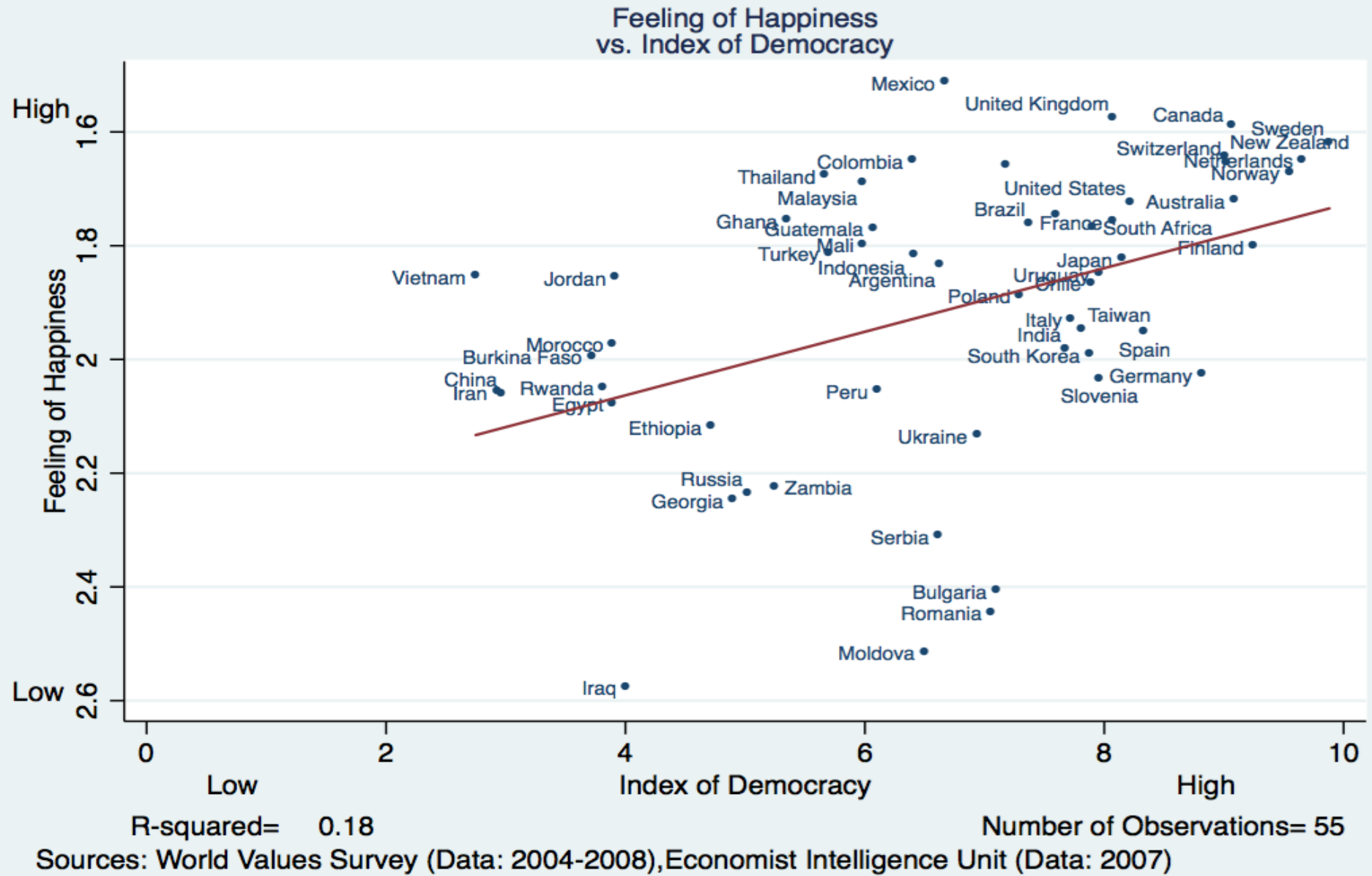
Sources: UNODC (Data: 2012); Economist Intelligence Unit (Data: 2007)



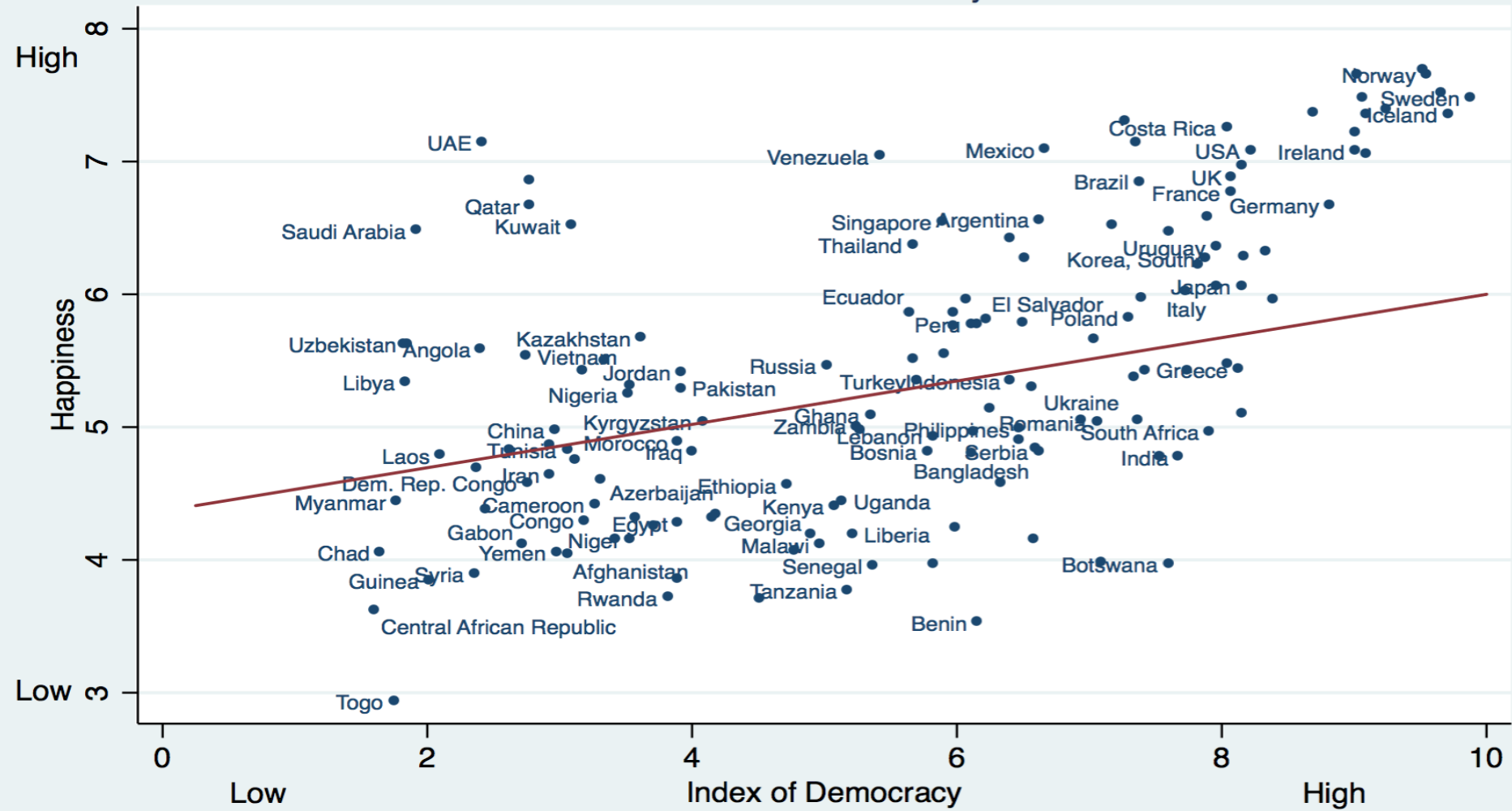
Confidence in Parliament
vs. Index of Democracy (Democracies only)



Sources: World Values Survey (2010-2014); Economist Intelligence Unit (Data: 2007)



Happiness vs. Index of Democracy

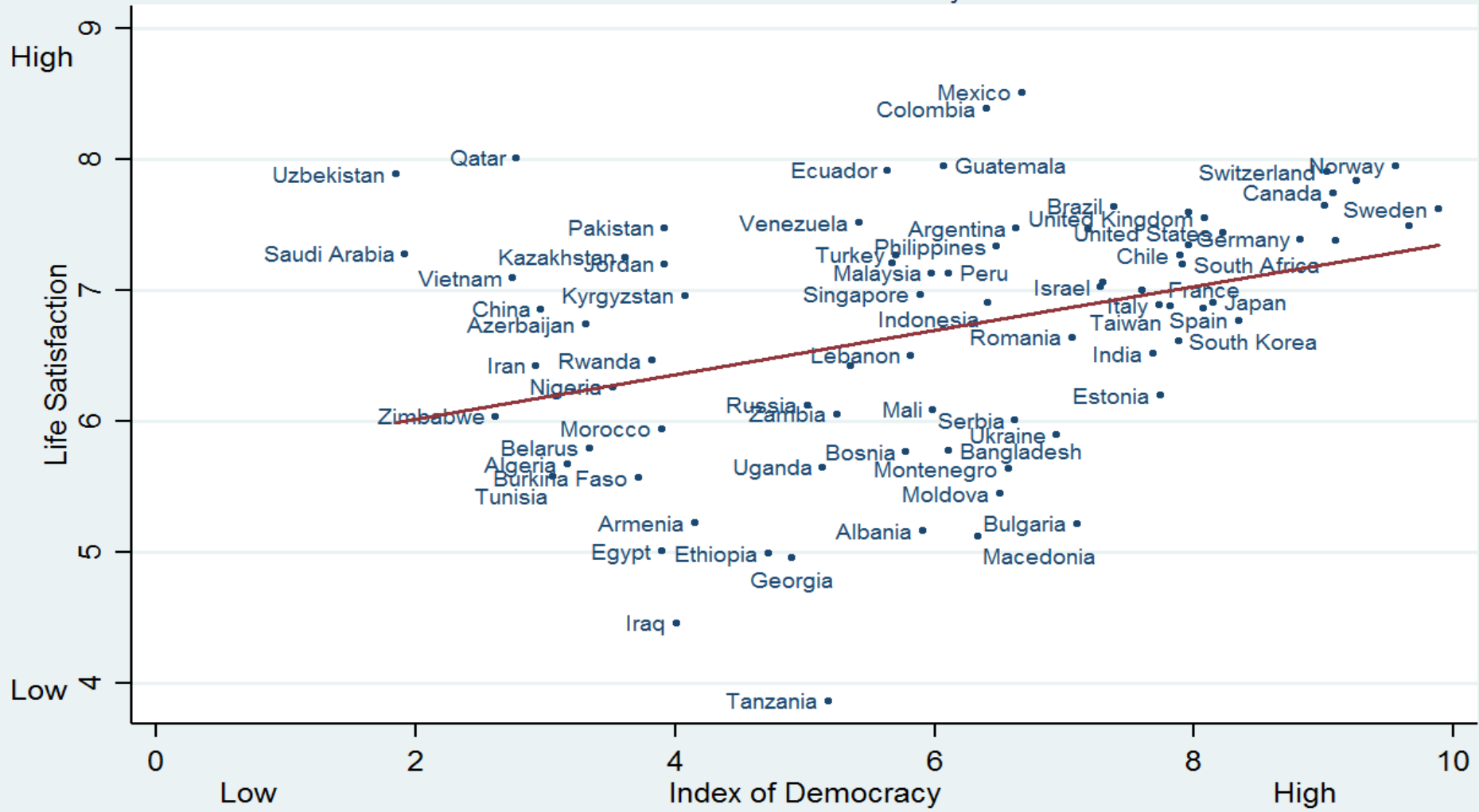


R-squared= 0.36

Number of Observations= 150

Sources: World Happiness Report (Data: 2013); Economist Intelligence Unit (Data: 2007)

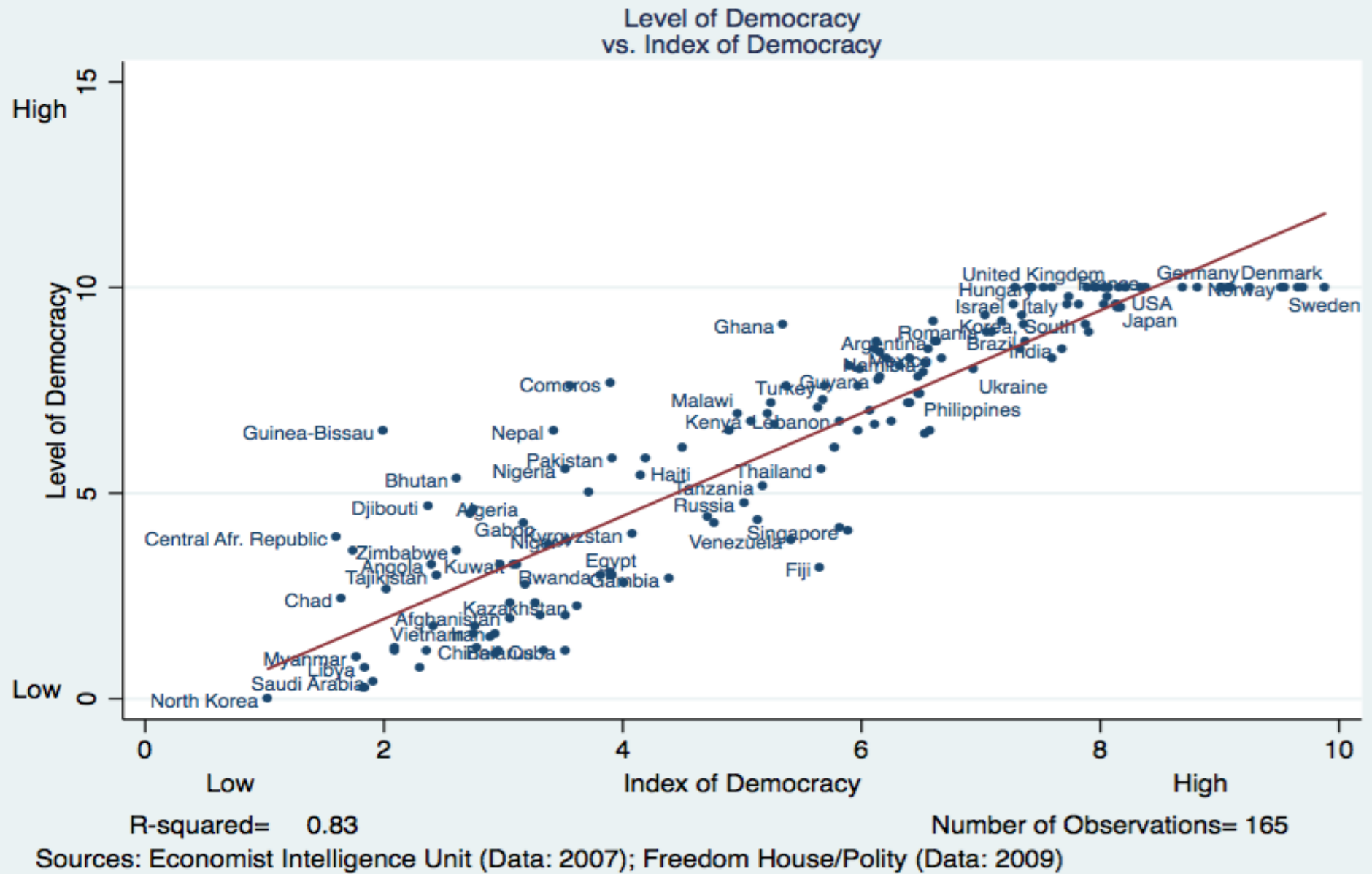
Life Satisfaction vs. Index of Democracy

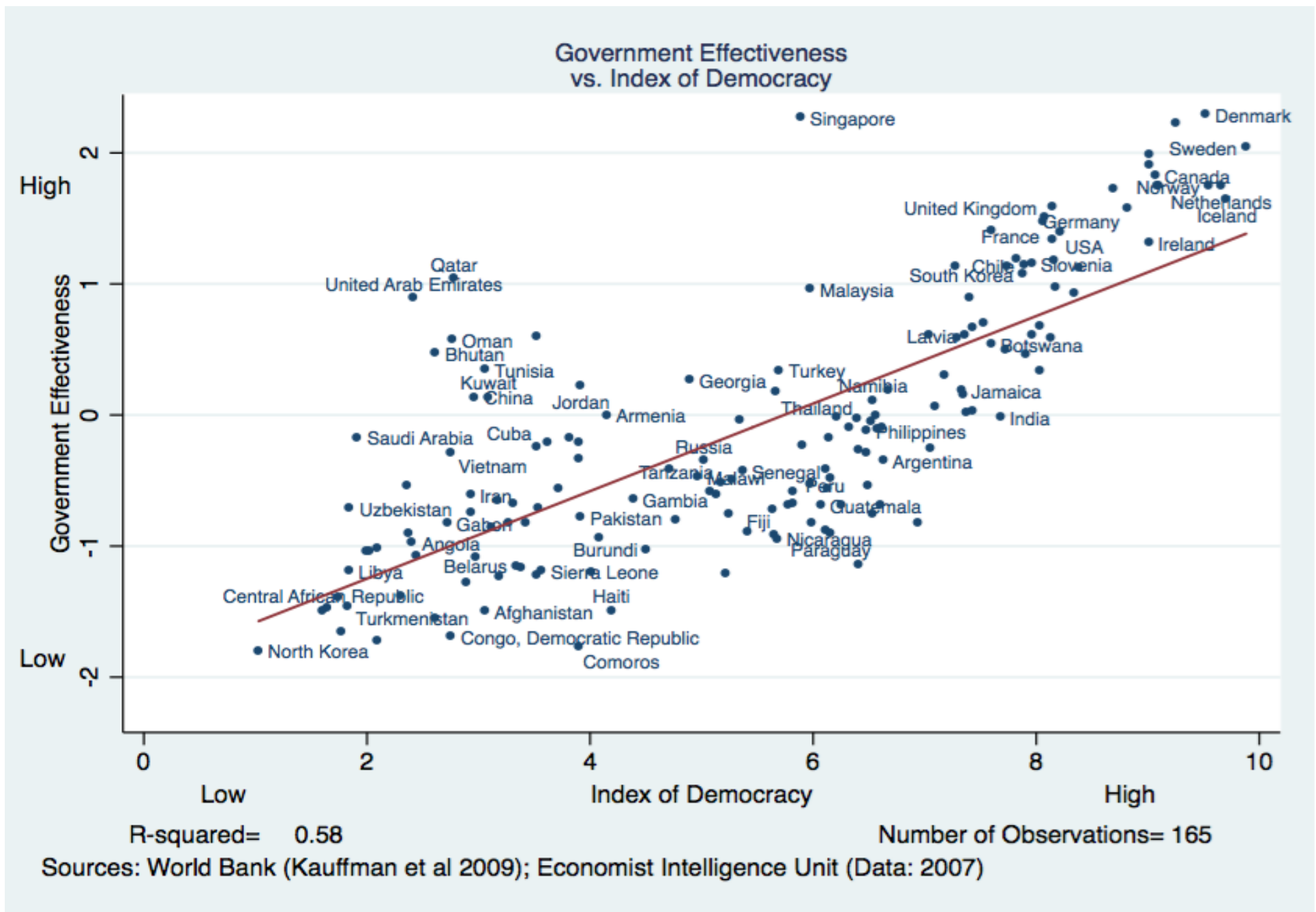


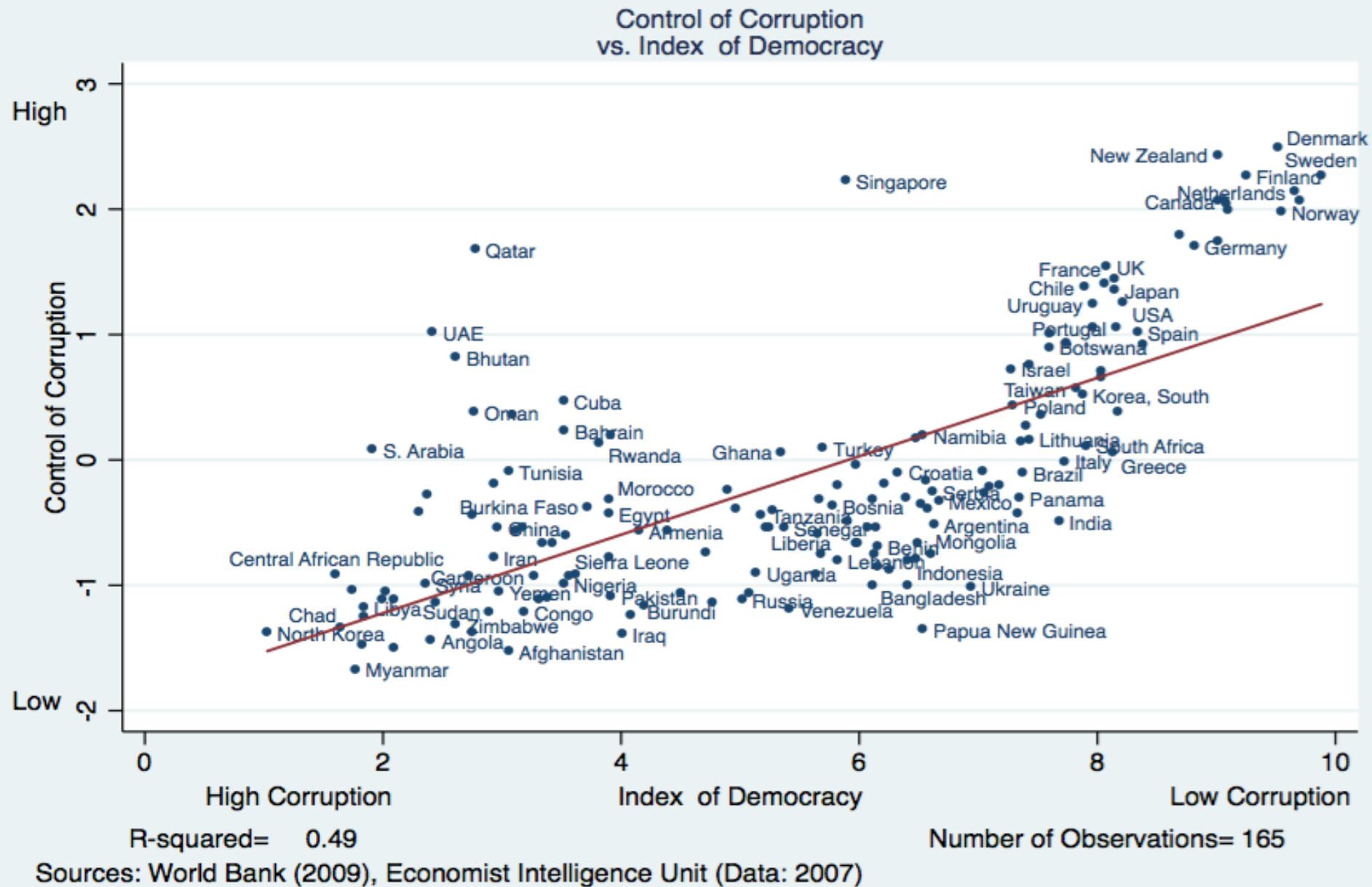
R-squared= 0.13

Number of Observations= 82

Sources: World Values Survey (Data: 2010-2014); Economist Intelligence Unit (Data: 2007)







Correlates of The Economist's Index of Democracy¹

GDP per Capita – Gleditsch Expanded Trade and GDP Data

In order to fill in gaps in the Penn World Table's mark 5.6 and 6.2 data (see below: Heston, Summers & Aten), Gleditsch has imputed missing data by using an alternative source of data (the CIA World Fact Book), and through extrapolation beyond available time-series. This is his estimate of GDP per Capita in US dollars at current year international prices

Economic Equality (Gini index) SOLT

Estimate of Gini index of inequality in equivalized (square root scale) household disposable income, using Luxembourg Income Study data as the standard.

Economic Freedom Heritage Foundation

The Economic Freedom index uses 10 specific freedoms, some as composites of even further detailed and quantifiable components:

- Business freedom (hf_business)
- Trade freedom (hf_trade)
- Fiscal freedom (hf_fiscal)
- Freedom from government (hf_govt)
- Monetary freedom (hf_monetary)
- Investment freedom (hf_invest)
- Financial freedom (hf_financ)
- Property rights (hf_prights)
- Freedom from corruption (hf_corrupt)
- Labor freedom (hf_labor)

Each of these freedoms is weighted equally and turned into an index ranging from 0 to 100, where 100 represents the maximum economic freedom. Although changes in methodology have been undertaken throughout the measurement period, continuous backtracking has been used to maximize comparability over time.

GDP / Capita growth World Development Indicators

Annual percentage growth rate of GDP per capita based on constant local currency. Sources: World Bank and OECD.

Population below \$2 a Day (%) World Development Indicators

¹ Some of the variables have been reversed in the scatterplots in order to make the interpretation more intuitive. Felix Hartmann provided research assistant.

Percentage of the population living on less than \$2.00 a day at 2005 international prices. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database.

Country Credit Rating – World Economic Forum

Expert assessment of the probability of sovereign debt default on a 0–100 (lowest probability) scale. March 2012.

Human Development Index UNDP Human Development Report

The Human Development Index (HDI) is a composite index that measures the average achievements in a country in three basic dimensions of human development: a long and healthy life, as measured by life expectancy at birth;; knowledge, as measured by the adult literacy rate and the combined gross enrolment ratio for primary, secondary and tertiary schools;; and a decent standard of living, as measured by GDP per capita in purchasing power parity (PPP) US dollars.

Government Revenue (% of GDP) World Development Indicators

Revenue is cash receipts from taxes, social contributions and other revenues. Grants are excluded here. Measured as a percentage of GDP. Source: International Monetary Fund. (World Bank and OECD for GDP estimates.)

Tax Revenue (% of GDP) World Development Indicators

Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Measured as a percentage of GDP. Source: International Monetary Fund. (World Bank and OECD for GDP estimates.)

Average Schooling Years Barro & Lee

Average schooling years in the total population aged 25 and over.

Life Expectancy World Development Indicators

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. Sources: United Nations Population Division, national statistical offices, Eurostat, Secretariat of the Pacific Community, and U.S. Census Bureau.

Healthy life expectancy – Salomon et al. (IHME)

HALE was calculated by extending the conventional life table that is used to translate a schedule of agespecific death rates into estimates of life expectancy at different ages. Information on the average level of health experienced over each age interval was incorporated into the life table.

Three sets of inputs from GBD 2010 were used, including age-specific information on mortality rates and prevalence of 1,160 conditions resulting from specific diseases, by sex, country, and year, and disability weights associated with the set of 220 distinct health states relating to those sequelae.

Estimates of average levels of overall health were computed for each age-sex group, adjusting for comorbidity using a Monte Carlo simulation approach to capture the many ways in which multiple prevalent morbidities may combine in a given individual. These estimates of average health were incorporated in the life table using the Sullivan method, yielding healthy life expectancy estimates for each population in the study.

Results were evaluated across country and over time, and changes were evaluated to estimate the relative contributions of changes in child mortality, adult mortality, and disability prevalence as drivers of overall change in population health between 1990 and 2010

Infant Mortality Rate World Development Indicators

Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. Source: Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UNPD, universities and research institutions).

Maternal Mortality Rate Institute for Health Metrics and Evaluation University of Washington

Number of maternal deaths per 100,000 live Births.

Government Expenditure on Health (% of total health) WHO Statistical Information System

Government expenditure on health care services and goods as a percentage of total expenditure on health. Expenditures on health include final consumption, subsidies to producers, and transfers to households (chiefly reimbursements for medical and pharmaceutical bills). Besides domestic funds it also includes external resources (mainly as grants passing through the government or loans channeled through the national budget).

Private Expenditure on Health (% of total health) WHO Statistical Information System

Private expenditure on health-care services and goods as a percentage of total expenditure on health.

CO2 Emissions / Capita Environmental Performance Index

Emissions of greenhouse gases per capita, measured in tons of carbon dioxide equivalents.

Access to Improved Drinking Water Environmental Performance Index

The percentage of population with an access to an improved water source. Original source is WHO.

Access to Adequate Sanitation Environmental Performance Index

The percentage of population with an access to an improved source of sanitation. Original source is WHO.

Gender Equality World Economic Forum

All scores are reported on a scale of 0 to 1, with 1 representing maximum gender equality. The study measures the extent to which women have achieved full equality with men in five critical areas:

- Economic participation
- Economic opportunity
- Political empowerment
- Educational Attainment
- Health and well-being

Secondary Education Enrollment (female) UNESCO Institute for Statistics

All values given are gross enrollment rate (GER). GER is defined as the number of pupils enrolled at a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. Gross enrollment rate can be over 100% due to the inclusion of over-aged and under-aged pupils/students because of early or late entrants, and grade repetition. In this case, a rigorous interpretation of GER needs additional information to assess the extent of repetition, late entrants, etc.

UNODC – Persons Convicted

Definition "Persons Convicted" means persons found guilty by any legal body authorized to pronounce a conviction under national criminal law, whether or not the conviction was later upheld. The total number of persons convicted should also include persons convicted of serious special law offences but exclude

persons convicted of minor road traffic offences and other petty offences.

UNODC – Intentional homicide count and rate per 100,000 population, by country/territory (2000-2012)

Intentional homicide is defined as unlawful death purposefully inflicted on a person by another person.

UNODC – Police Personnel

"Police Personnel" means personnel in public agencies as at 31 December whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders. Data concerning support staff (secretaries, clerks, etc.) should be excluded.

Interpersonal Trust World Values Survey

Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

- (1) Most people can be trusted
- (2) Can't be too careful

Confidence in Parliament World Values Survey

The respondents level of confidence in the parliament.

- 1. A great deal
- 2. Quite a lot
- 3. Not very much
- 4. Not at all

Ranking of Happiness: UN World Happiness Report (Gallup World Poll)

In the Gallup World Poll respondents are asked (using fresh annual samples of 1,000 respondents aged 15 or over in each of more than 150 countries) to evaluate the quality of their lives on an 11-point ladder scale running from 0 to 10, with the bottom rung of the ladder (0) being the worst possible life for them and 10 being the best possible.

Life Satisfaction World Values Survey

All things considered, how satisfied are you with your life as a whole these days?

- (1) Dissatisfied
- (2)
- (3)
- (4)
- (5)
- (6)
- (7)
- (8)
- (9)
- (10) Satisfied

Level of Democracy Freedom House / Polity

Scale ranges from 0-10 where 0 is least democratic and 10 most democratic. Average of Freedom House (fh_pr and fh_cl) is transformed to a scale 0-10 and Polity (p_polity2) is transformed to a scale 0-10. These variables are averaged into fh_polity2. The imputed version has imputed values for countries where data on Polity is missing by regressing Polity on the average Freedom House measure. Hadenius & Teorell (2005) show that this average index performs better both in terms of validity and reliability than its constituent parts.

Government Effectiveness World Bank Governance Indicators

“Government Effectiveness” combines into a single grouping responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitment to policies. The main focus of this index is on “inputs” required for the government to be able to produce and implement good policies and deliver public goods.

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