



UNIVERSITY OF  
GOTHENBURG

# CORRELATES OF QUALITY OF GOVERNMENT

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# Quality of Government Defined as Impartial Public Administration (IPA)

The index measures to what extent government institutions exercise their power impartially. The impartiality norm is defined as: “When implementing laws and policies, government officials shall not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy or the law.” (Rothstein and Teorell 2008, p. 170) The index is built on five items from the QoG Institute’s Expert Survey:

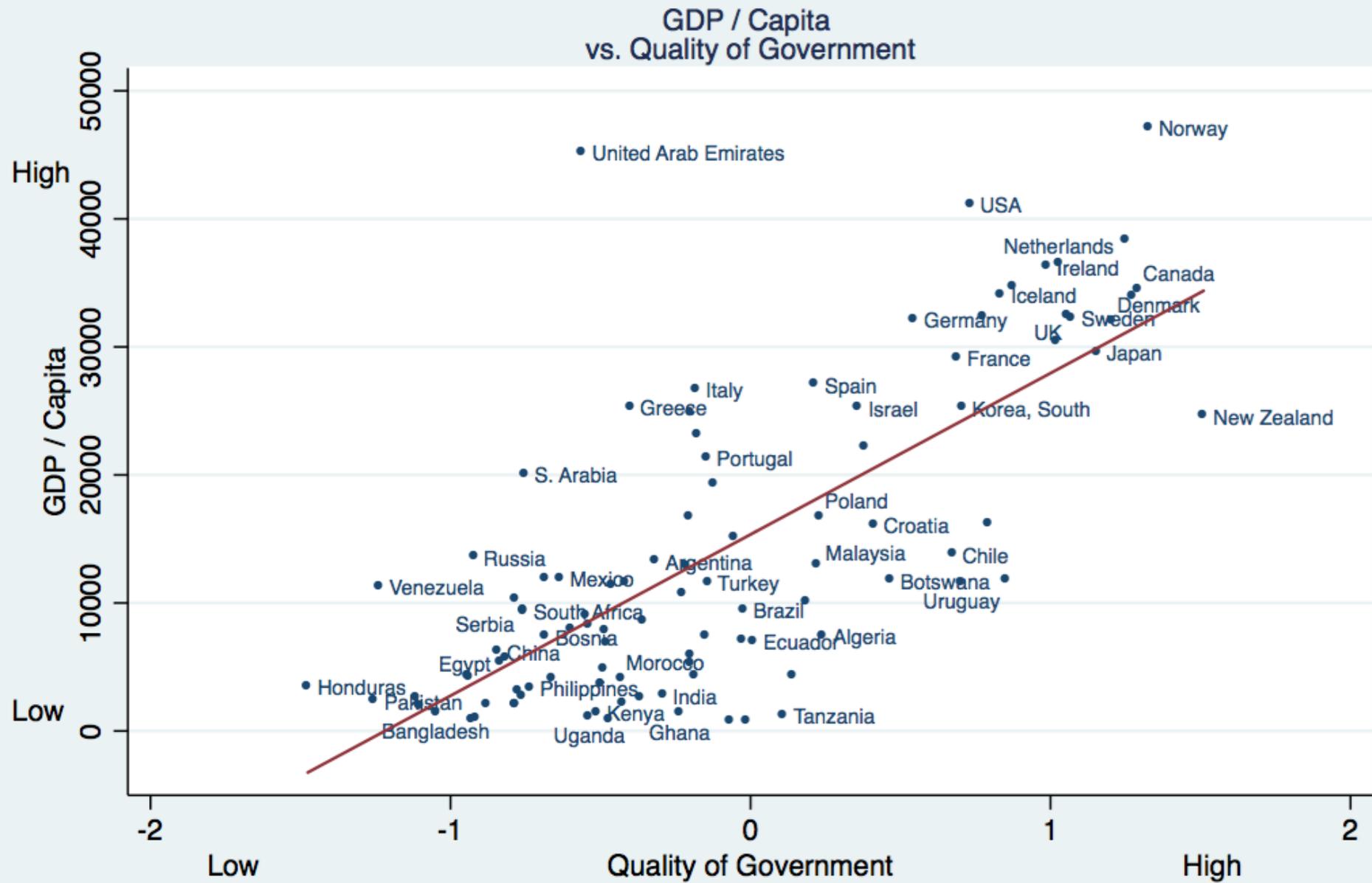
- By a common definition, impartiality implies that when implementing policies, public sector employees should not take anything about the citizen/case into consideration that is not stipulated in the policy. Generally speaking, how often would you say that public sector employees today, in your chosen country, act impartially when deciding how to implement a policy in an individual case? (Response categories from 1-7, “hardly ever” to “almost always”)
- Hypothetically, let’s say that a typical public employee was given the task to distribute an amount equivalent to 1000 USD per capita to the needy poor in your country. According to your judgment, please state the percentage that would reach: (Six response categories for which the respondents could fill in a number from 0 to 100 percent. The percentage reaching “the needy poor” was here used as the indicator of how impartial the policy would be implemented).

Thinking about the country you have chosen, how often would you say the following occurs today?

- Firms that provide the most favorable kickbacks to senior officials are awarded public procurement contracts in favor of firms making the lowest bid?
- When deciding how to implement policies in individual cases, public sector employees treat some groups in society unfairly?
- When granting licenses to start up private firms, public sector employees favor applicants with which they have strong personal contacts? (Response categories from 1-7, from “hardly ever” to “almost always”.)

The index is constructed by adding each measure weighted by the factor loading obtained from a principle components factor analysis. Missing values on one or more of the questions have been imputed on the individual expert level. After that, aggregation to the country level has been made (mean value of all experts per country).

(The QoG Expert Survey) (2011)

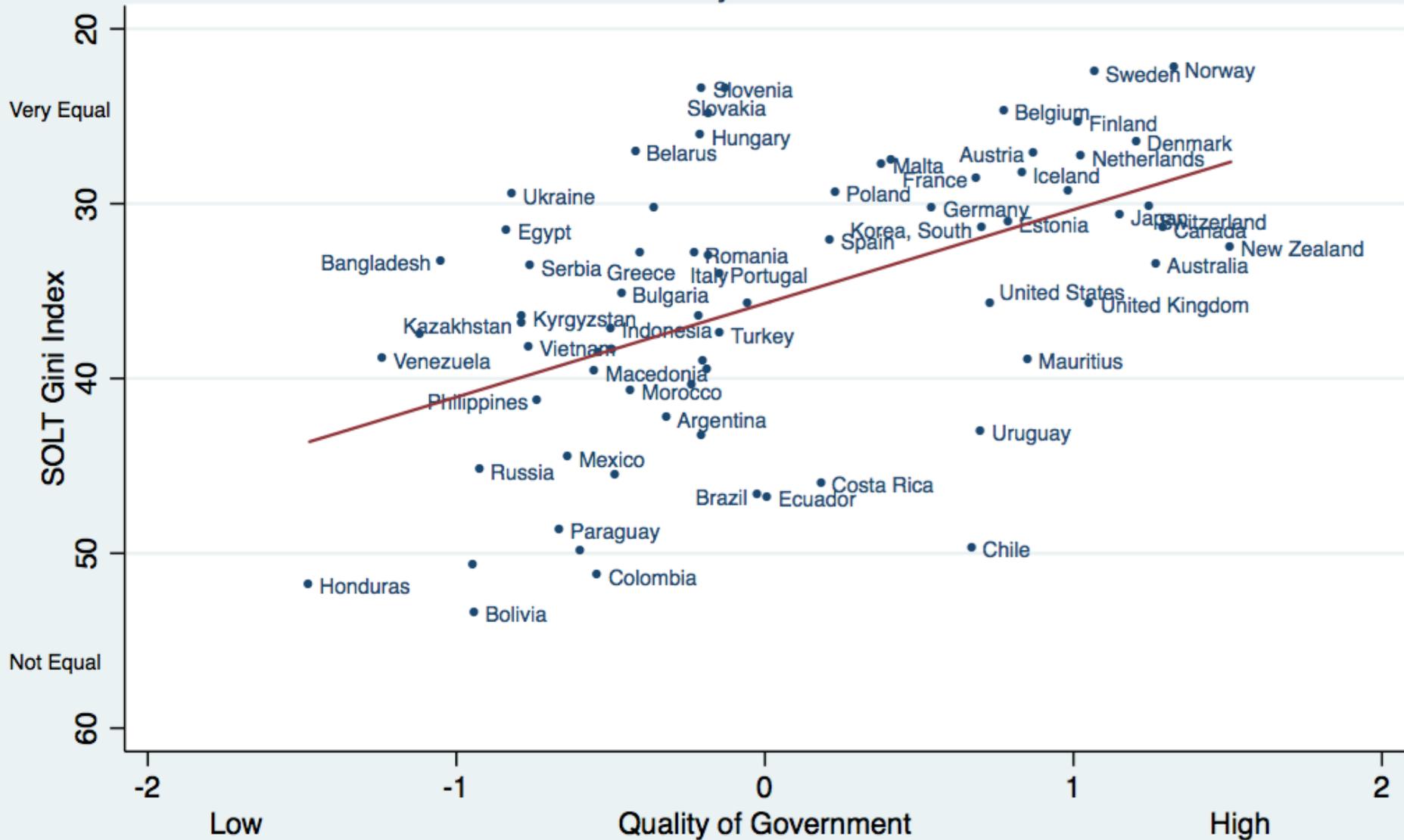


R-squared= 0.55

Number of Observations= 102

Sources: Teorell et al. 2011; World Bank WDI 2013

### SOLT Gini Index vs. Quality of Government

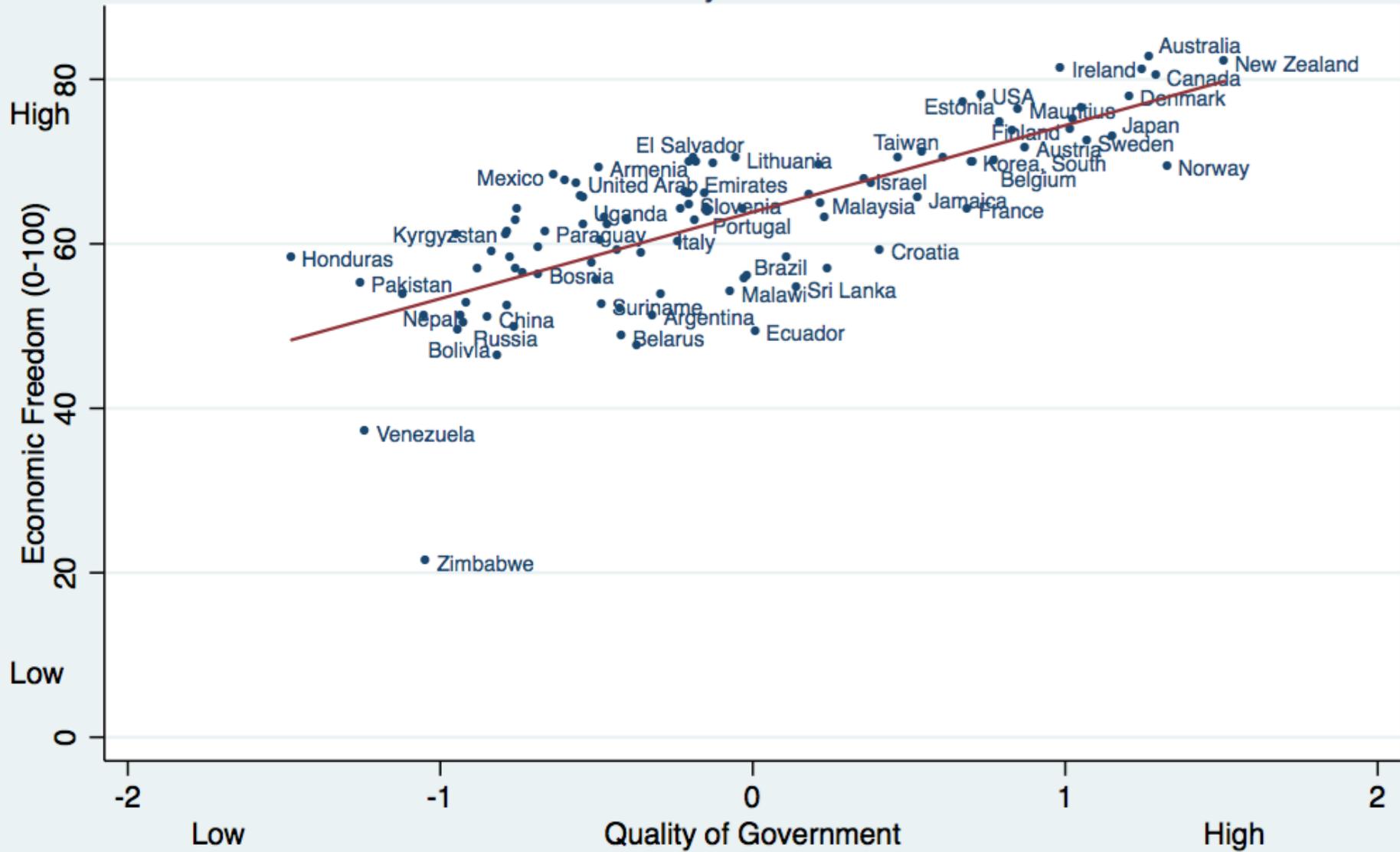


R-squared= 0.26

Number of Observations= 73

Sources: Teorell et al. 2011; The Standardized World Income Inequality Database

### Economic Freedom vs. Quality of Government

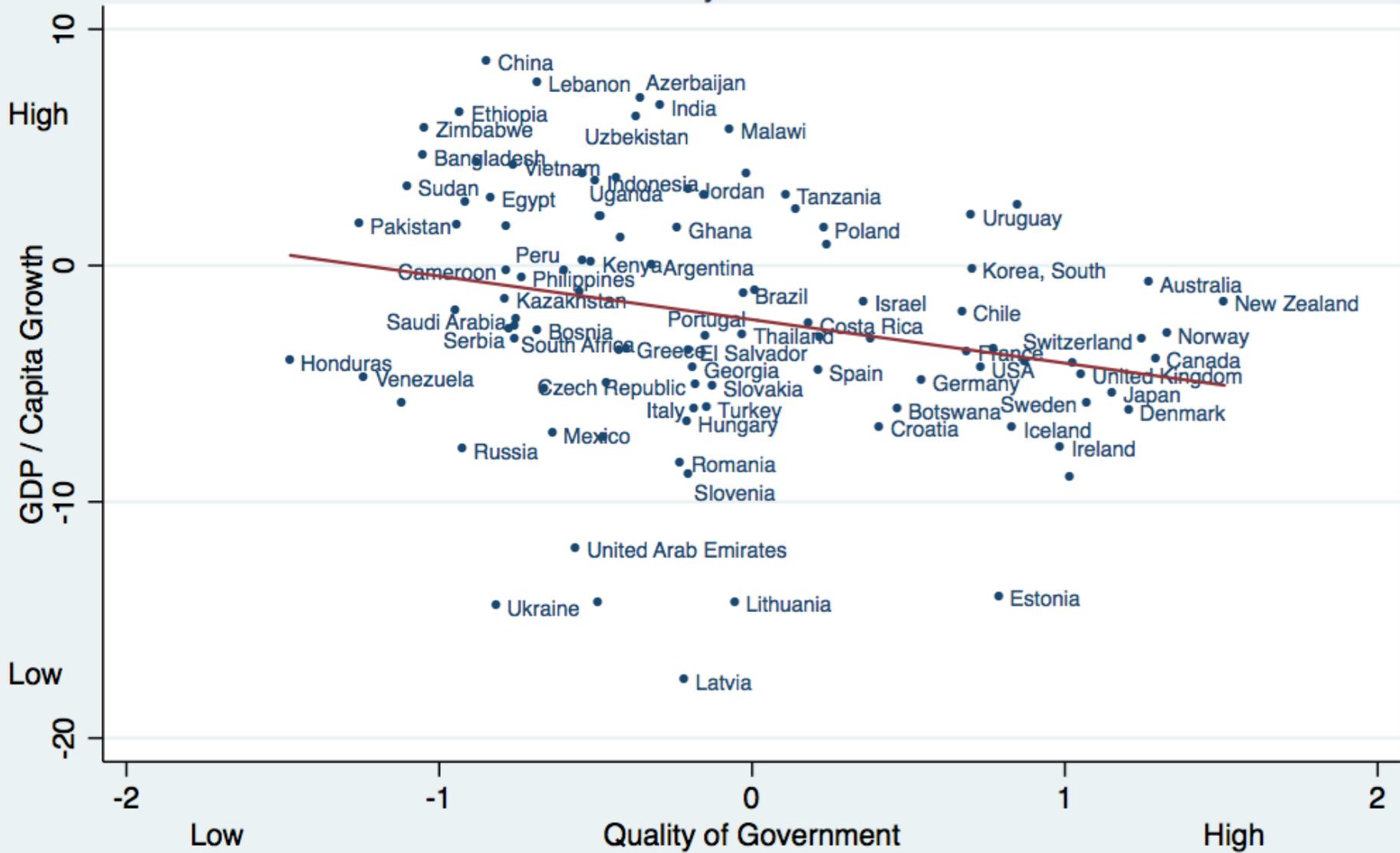


R-squared= 0.56

Number of Observations= 104

Sources: Teorell et al. 2011; Heritage Foundation 2013 (2009)

### GDP / Capita Growth vs. Quality of Government

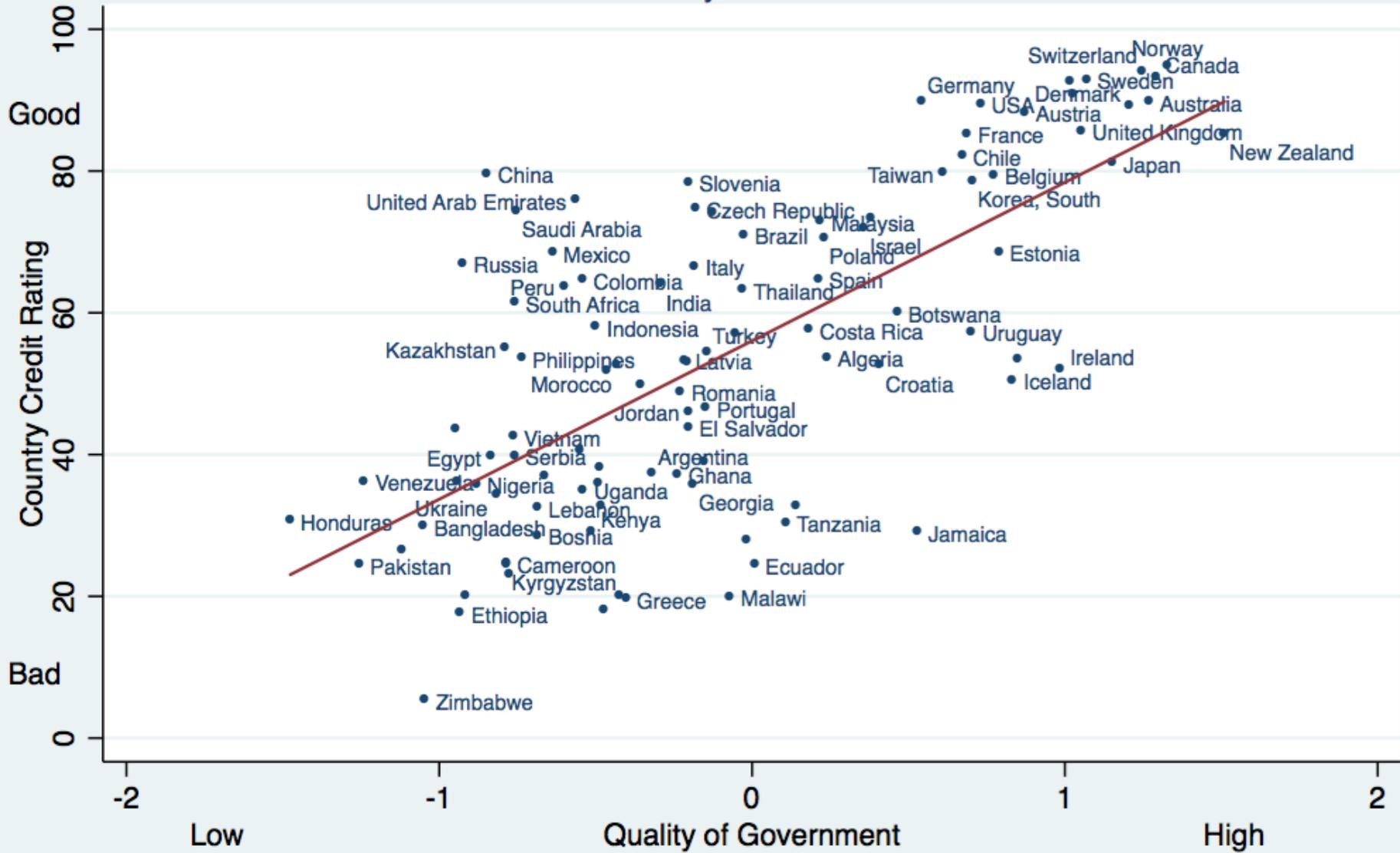


R-squared= 0.06

Number of Observations= 103

Sources: Teorell et al. 2011; World Bank WDI 2013 (2008-2009)

### Country Credit Rating vs. Quality of Government



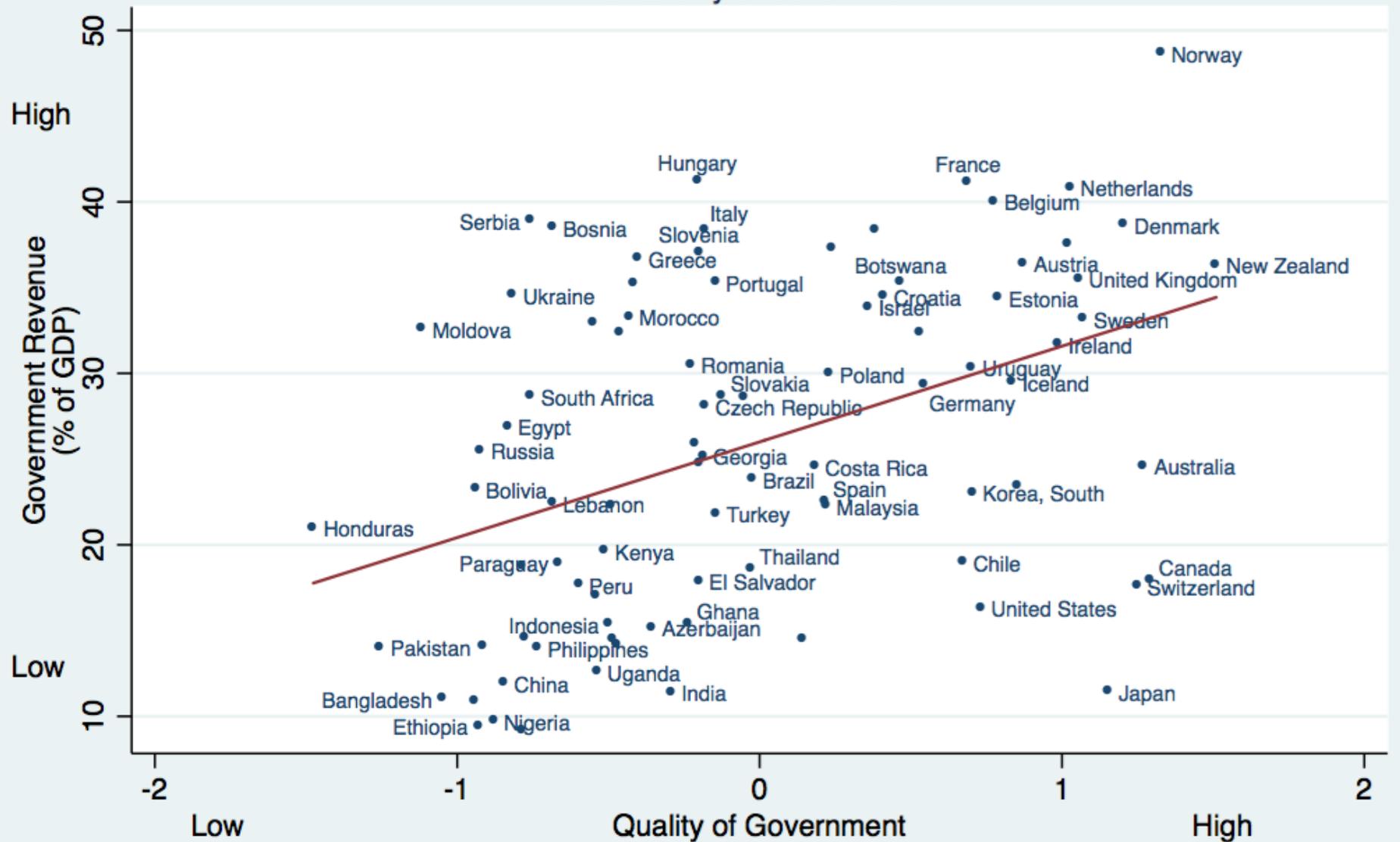
R-squared= 0.48

Number of Observations= 102

Sources: Teorell et al. 2011; WEF (Schwab 2012)



### Government Revenue vs. Quality of Government

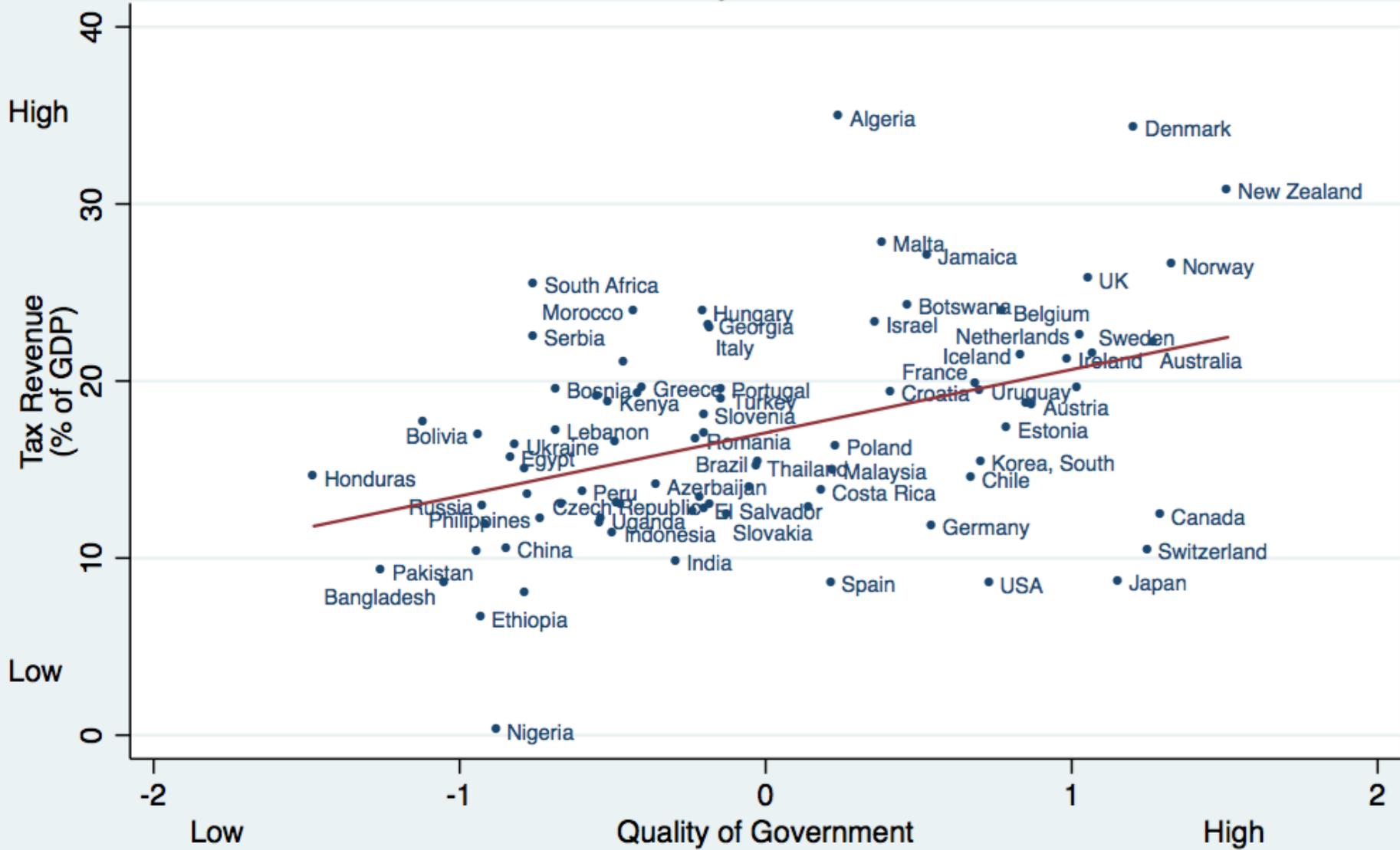


R-squared= 0.18

Number of Observations= 87

Sources: Teorell et al. 2011; World Bank WDI 2013 (2006-2009)

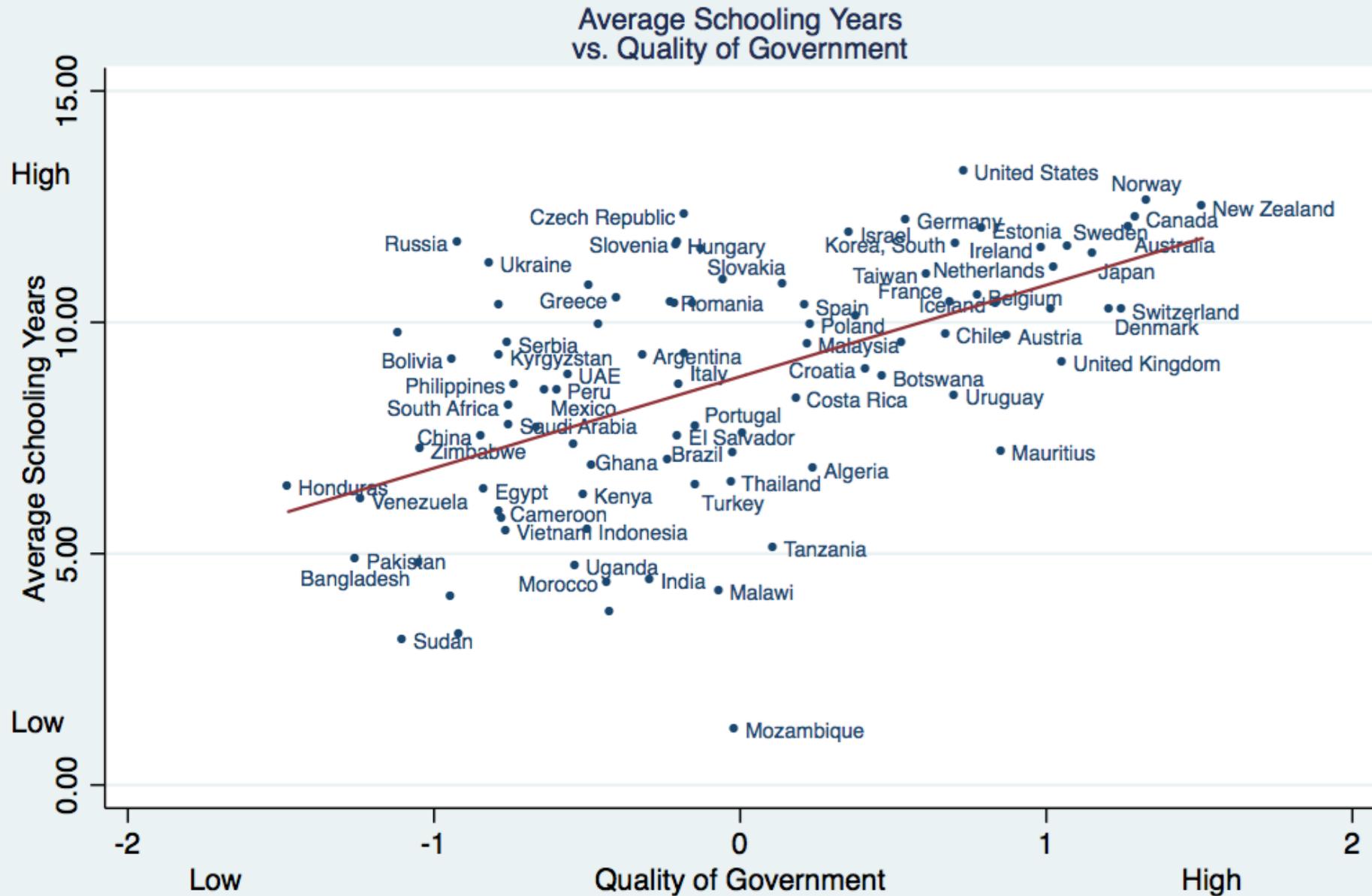
### Tax Revenue vs. Quality of Government



R-squared= 0.18

Number of Observations= 87

Sources: Teorell et al. 2011; World Bank WDI 2013 (2006-2009)

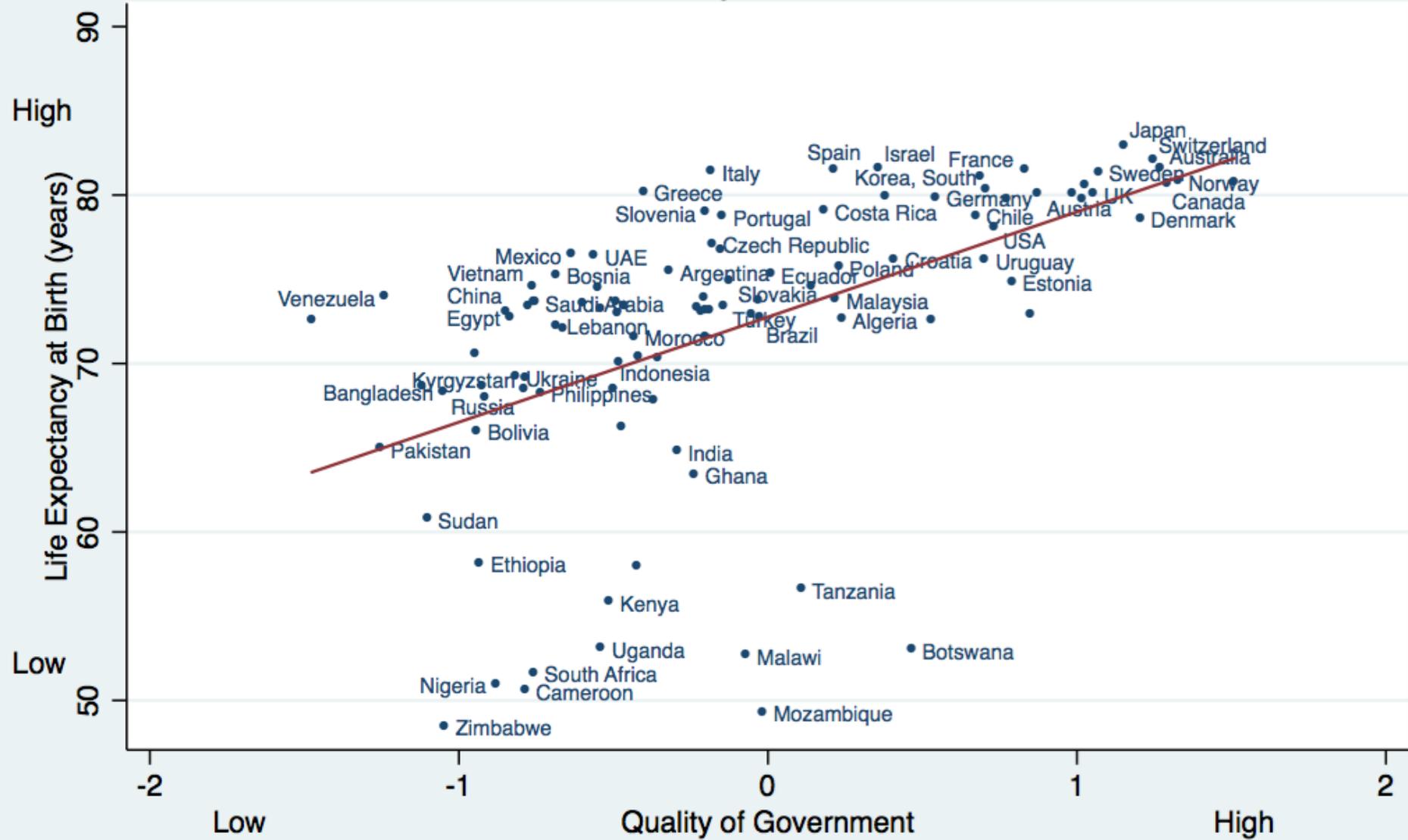


R-squared= 0.30

Number of Observations= 94

Sources: Teorell et al. 2011; Barro &amp; Lee 2011 (2010)

### Life Expectancy at Birth vs. Quality of Government

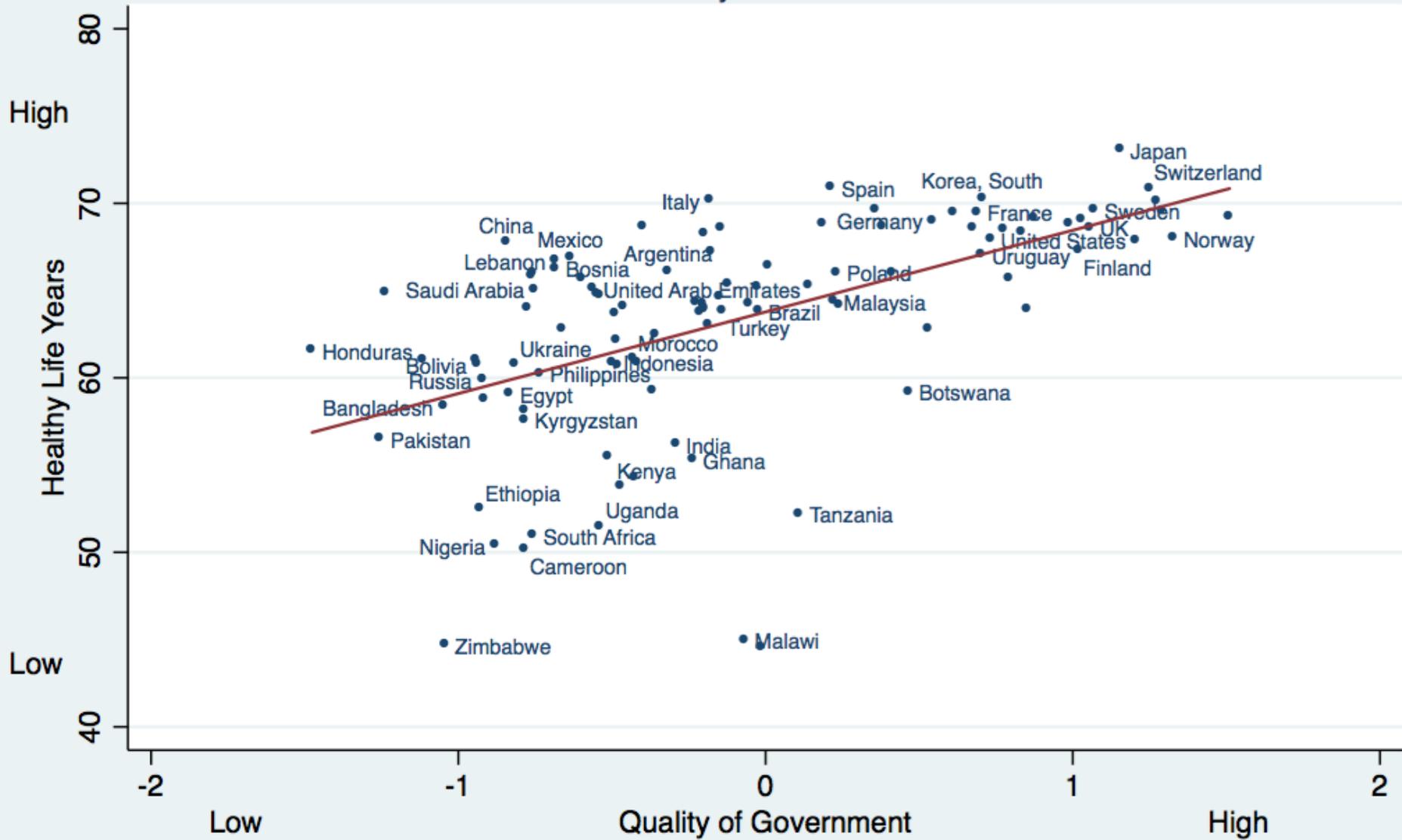


R-squared= 0.29

Number of Observations= 104

Sources: Teorell et al. 2011; World Bank WDI 2013 (2009-2012)

### Healthy Life Years vs. Quality of Government

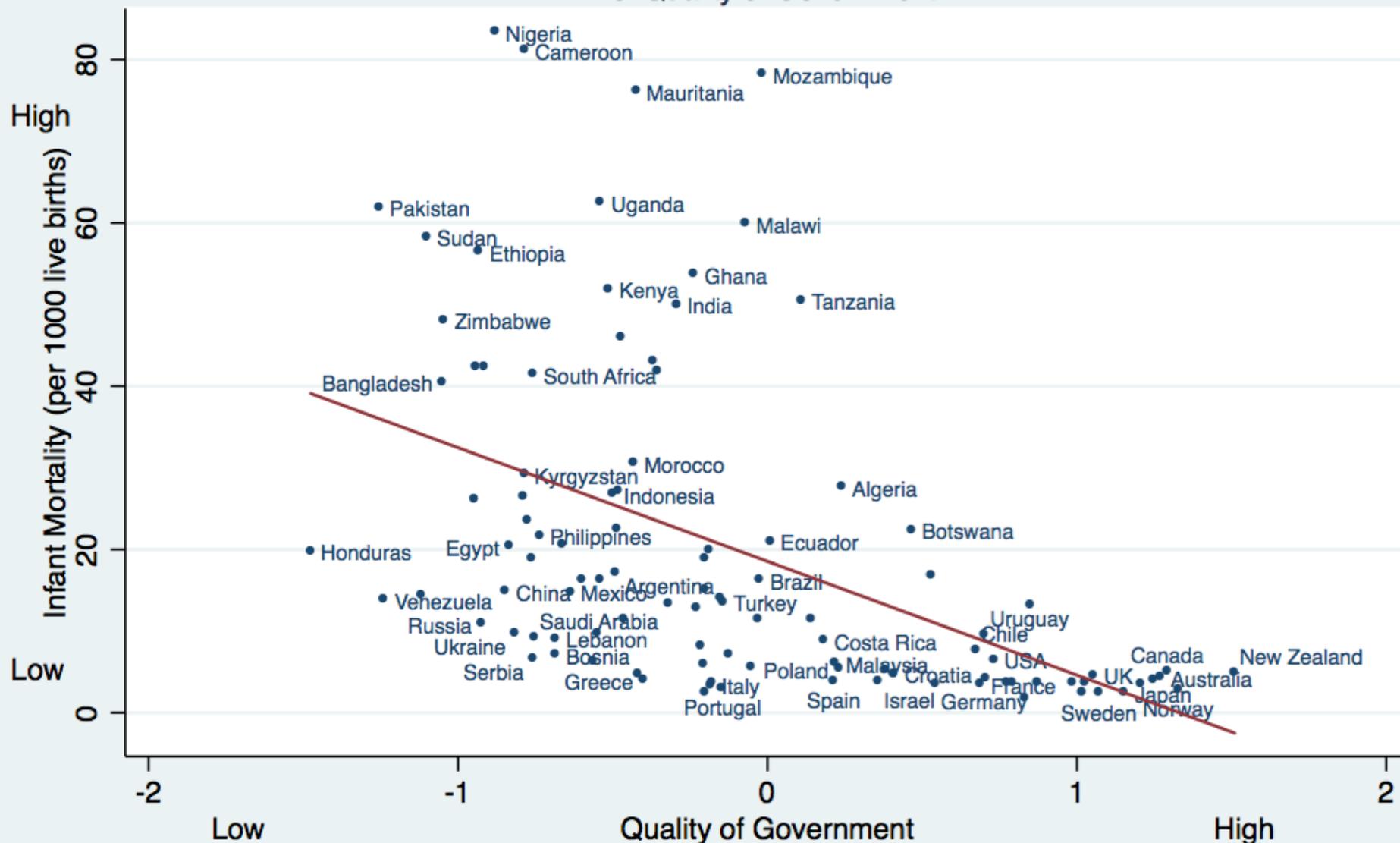


R-squared= 0.30

Number of Observations= 104

Sources: Teorell et al. 2011; Salomon et al. 2012 (Data: 2010)

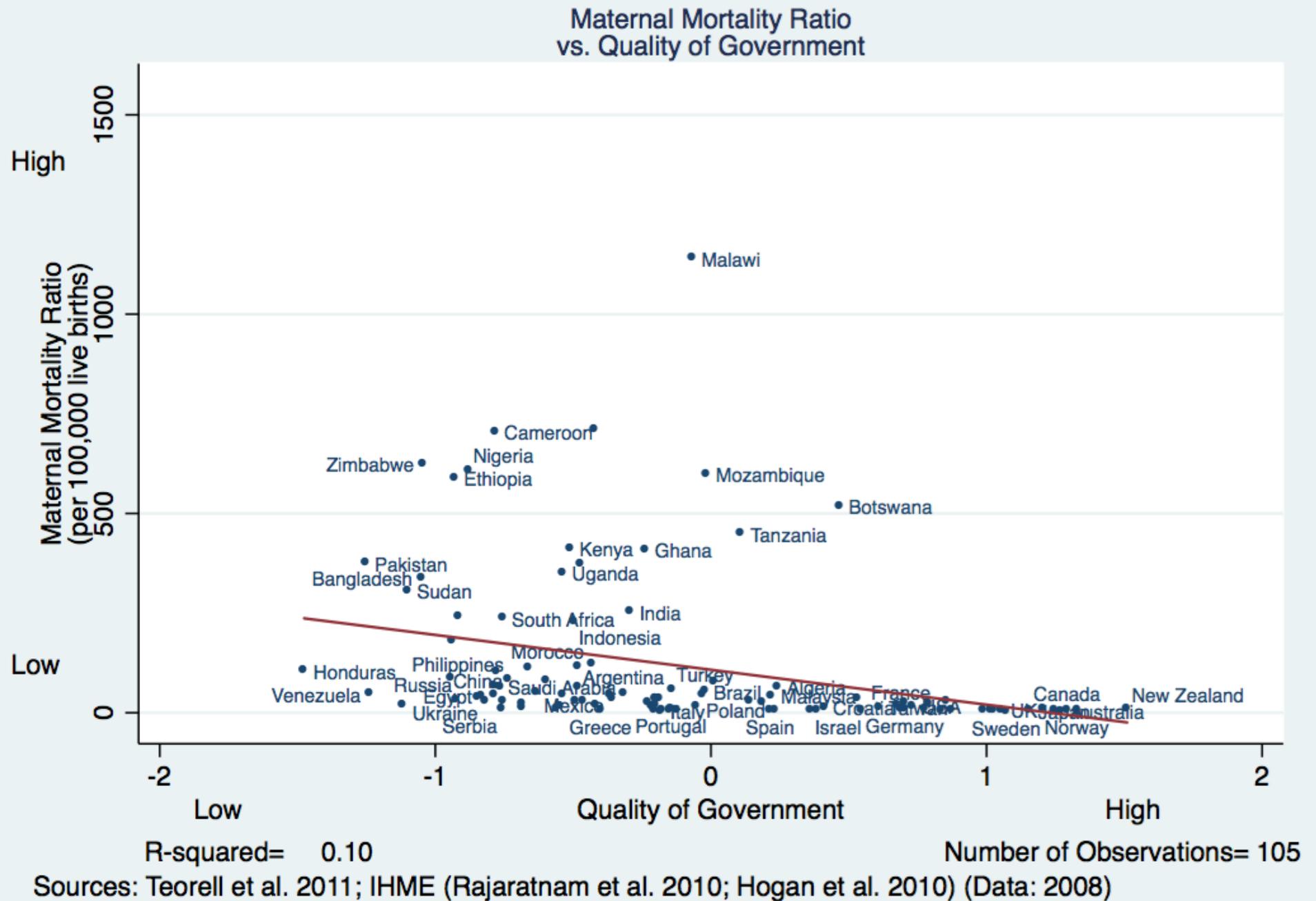
### Infant Mortality vs. Quality of Government

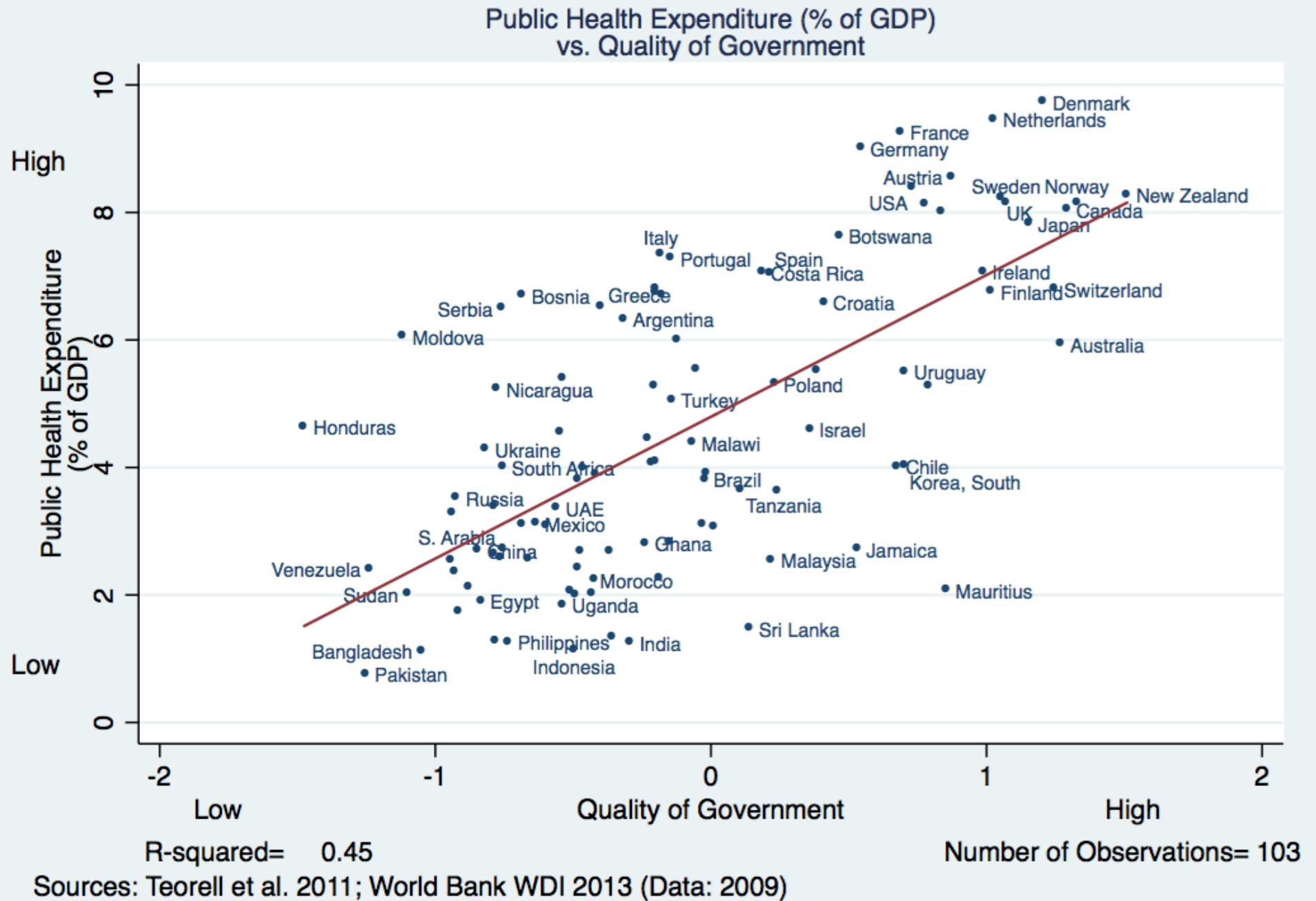


R-squared= 0.24

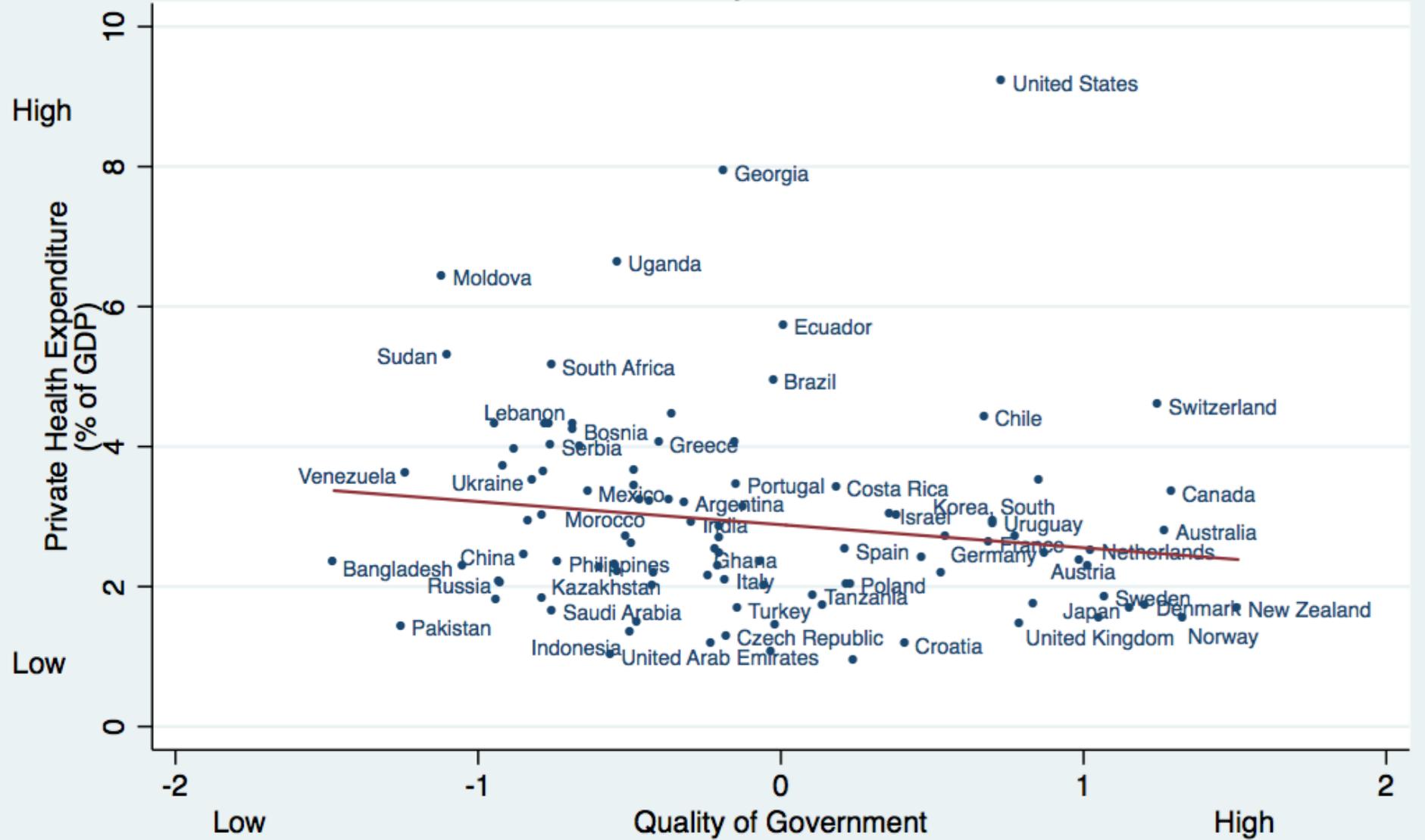
Number of Observations= 104

Sources: Teorell et al. 2011; World Bank WDI 2013 (2009)





### Private Health Expenditure (% of GDP) vs. Quality of Government

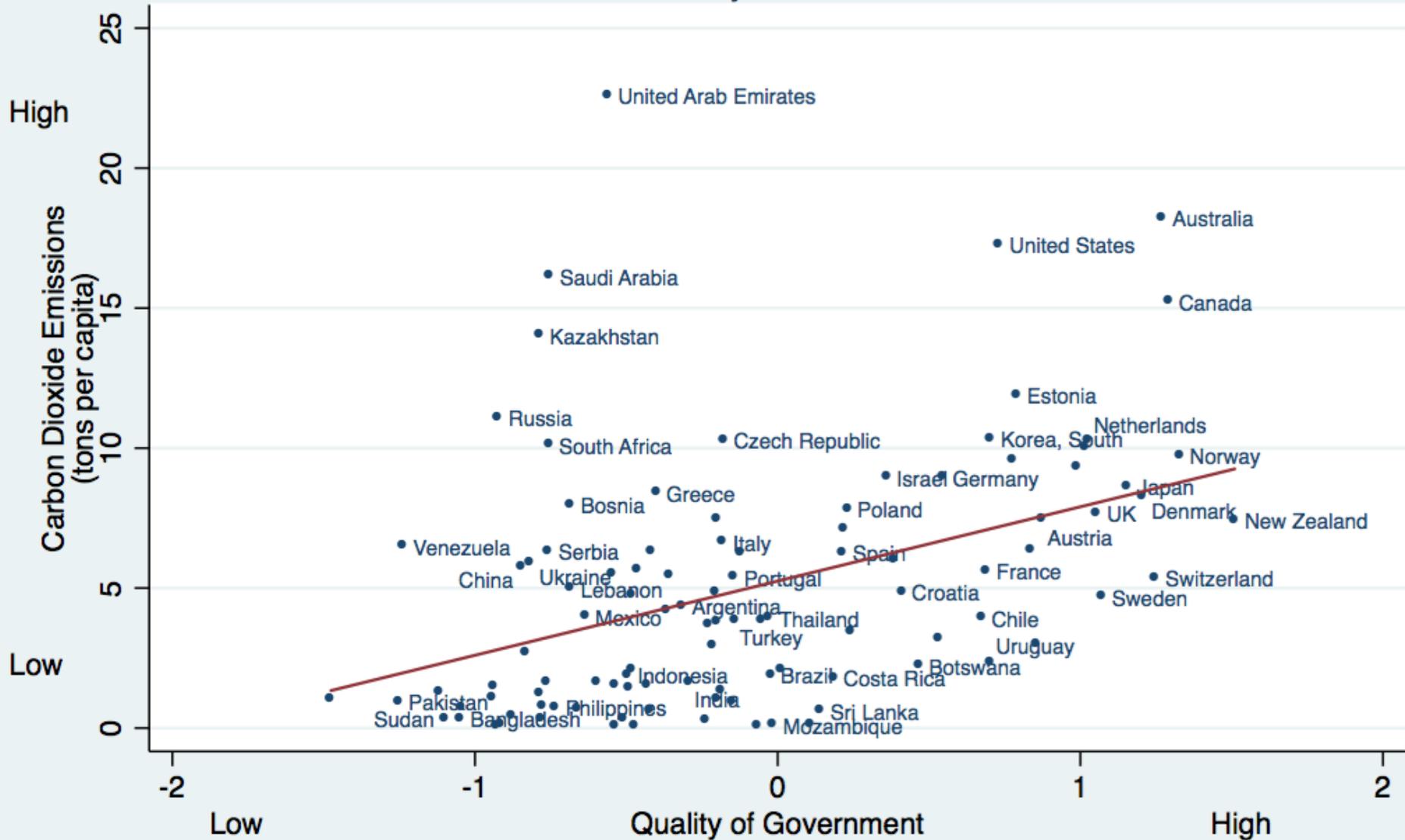


R-squared= 0.03

Number of Observations= 103

Sources: Teorell et al. 2011; World Bank WDI 2013 (Data: 2009)

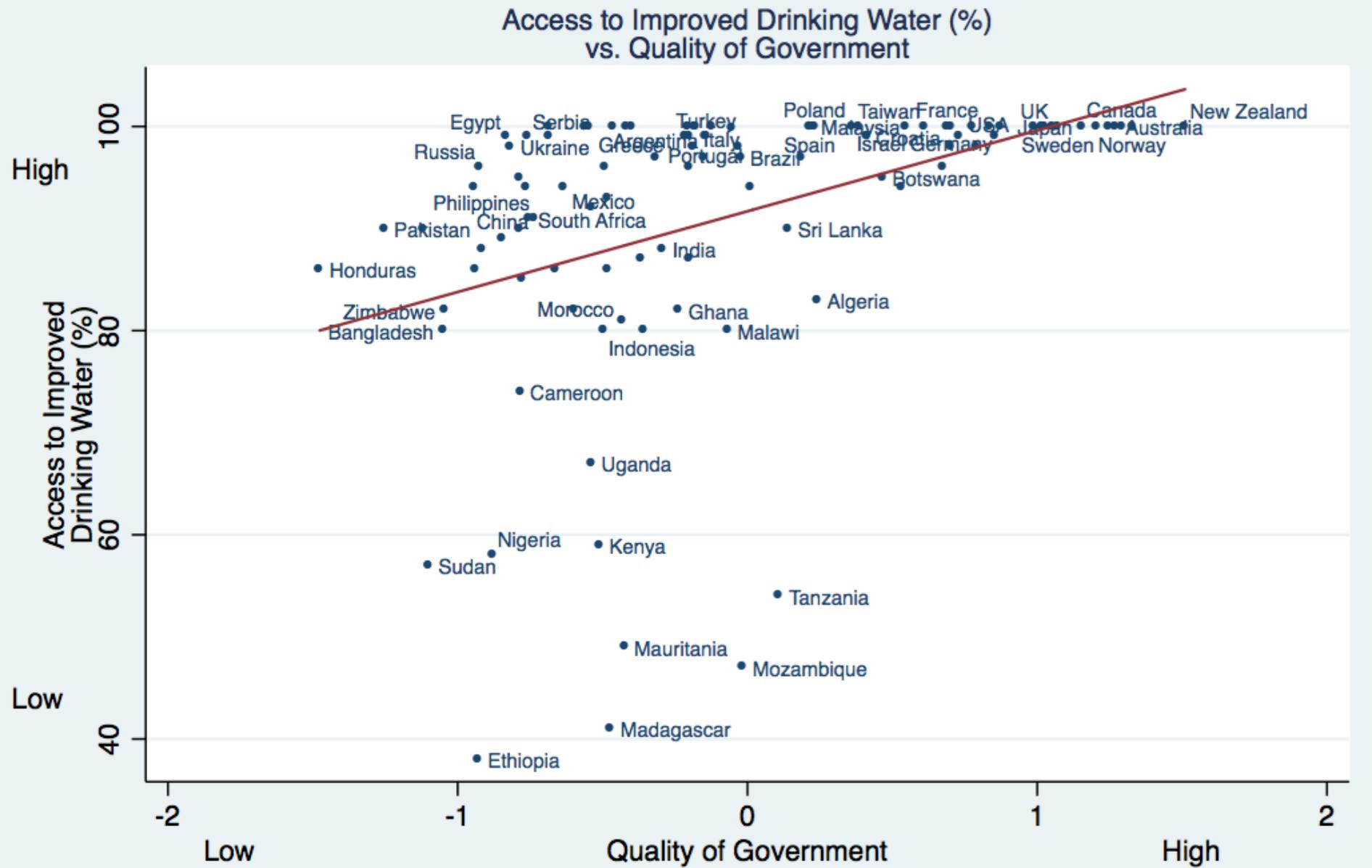
### Carbon Dioxide Emissions vs. Quality of Government



R-squared= 0.18

Number of Observations= 104

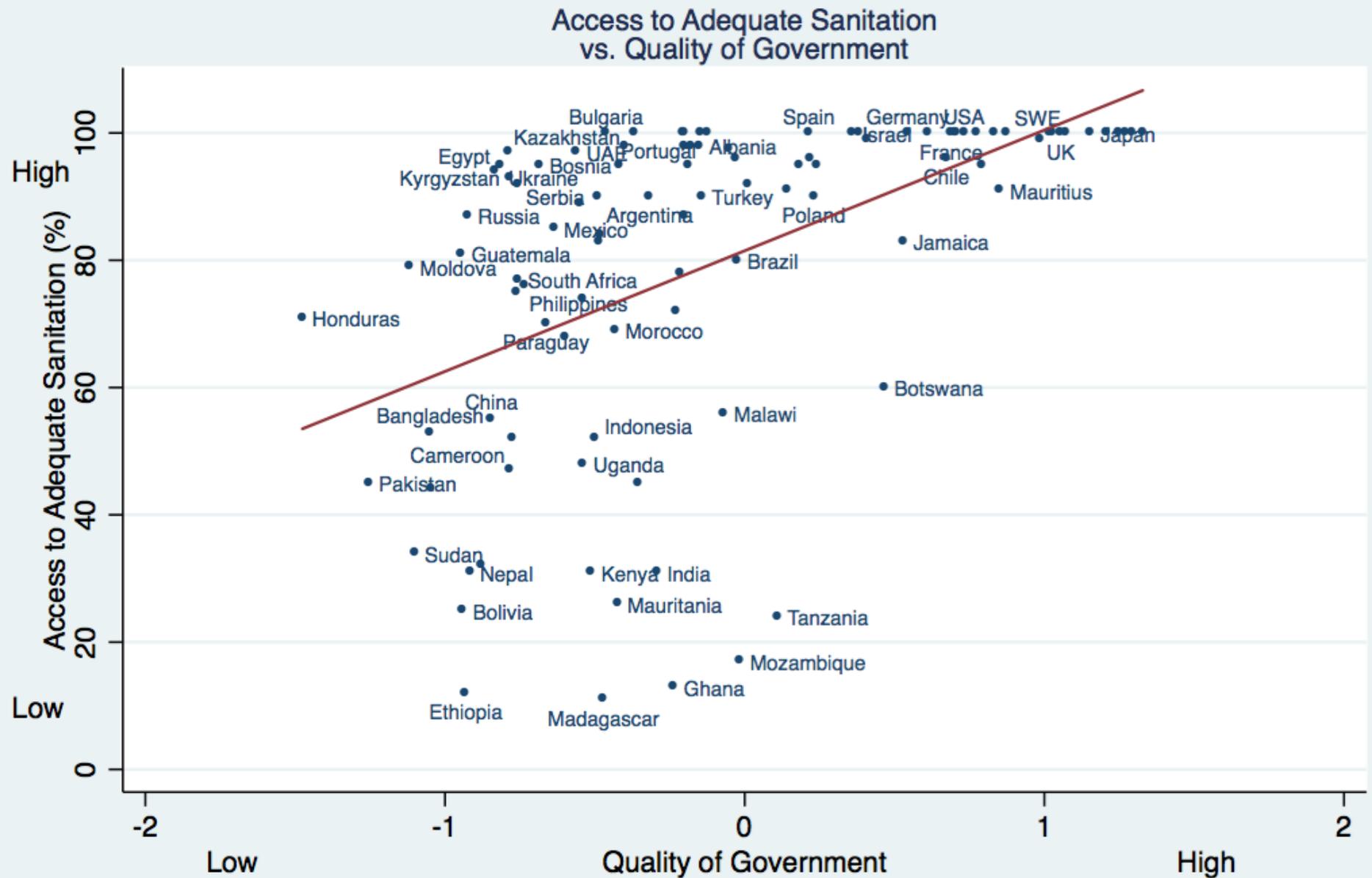
Sources: Teorell et al. 2011; World Bank WDI 2013 (Data: 2009)



R-squared= 0.16

Number of Observations= 102

Sources: Teorell et al. 2011; Environmental Performance Index (Esty et al. 2008) (Data: 2008)

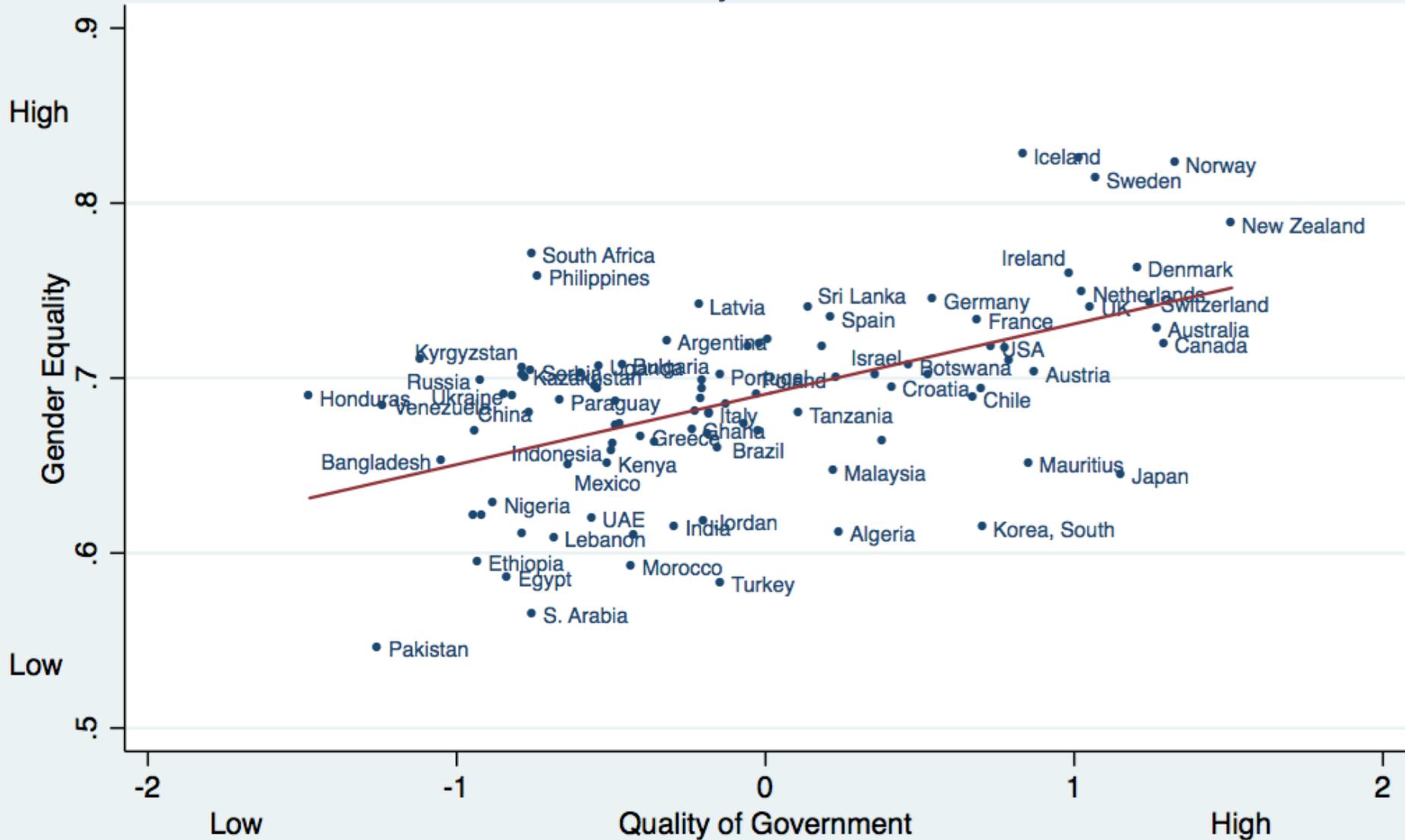


R-squared= 0.26

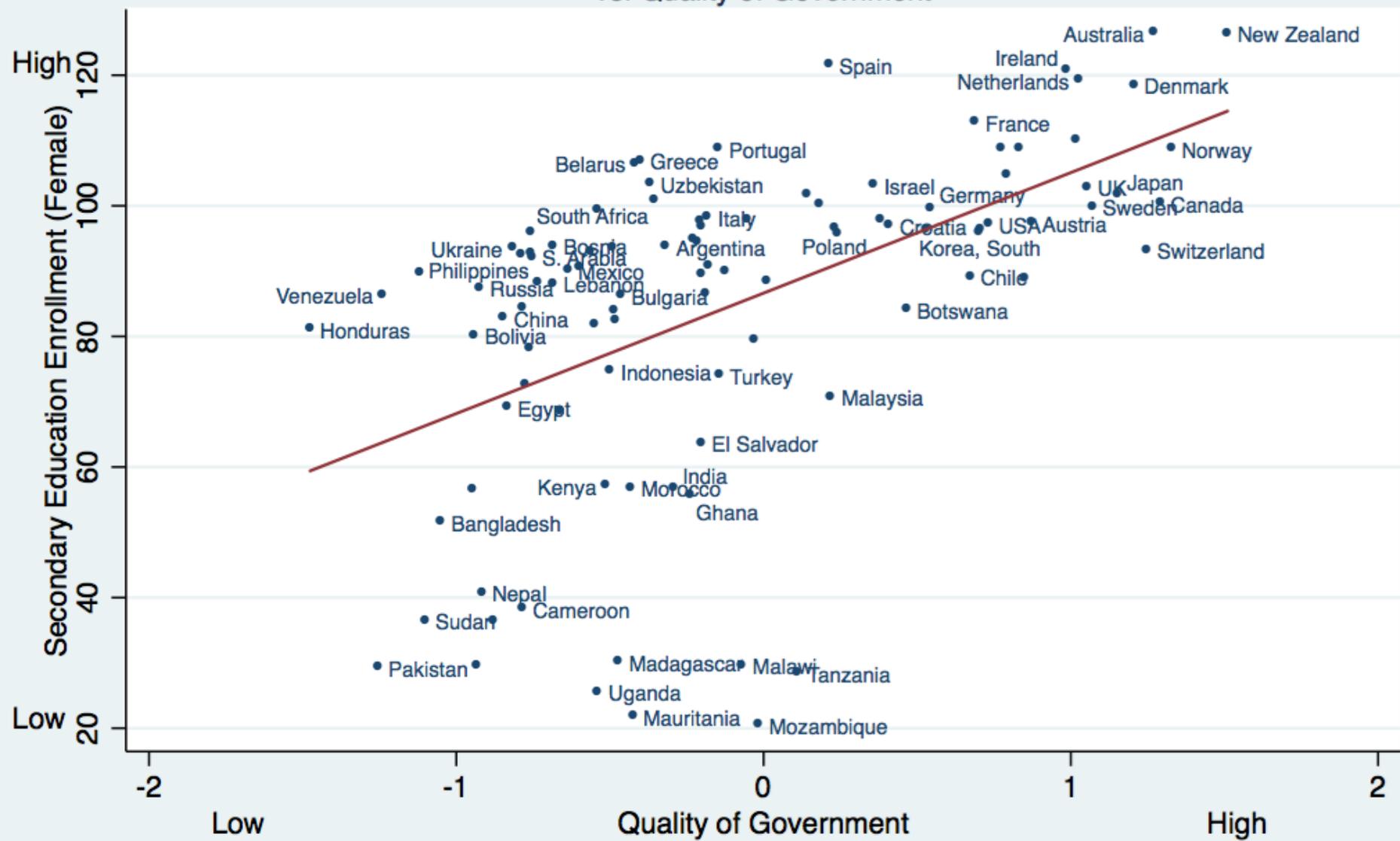
Number of Observations= 100

Sources: Teorell et al. 2011; Environmental Performance Index (Esty et al 2008) (Data: 2008)

## Gender Equality vs. Quality of Government



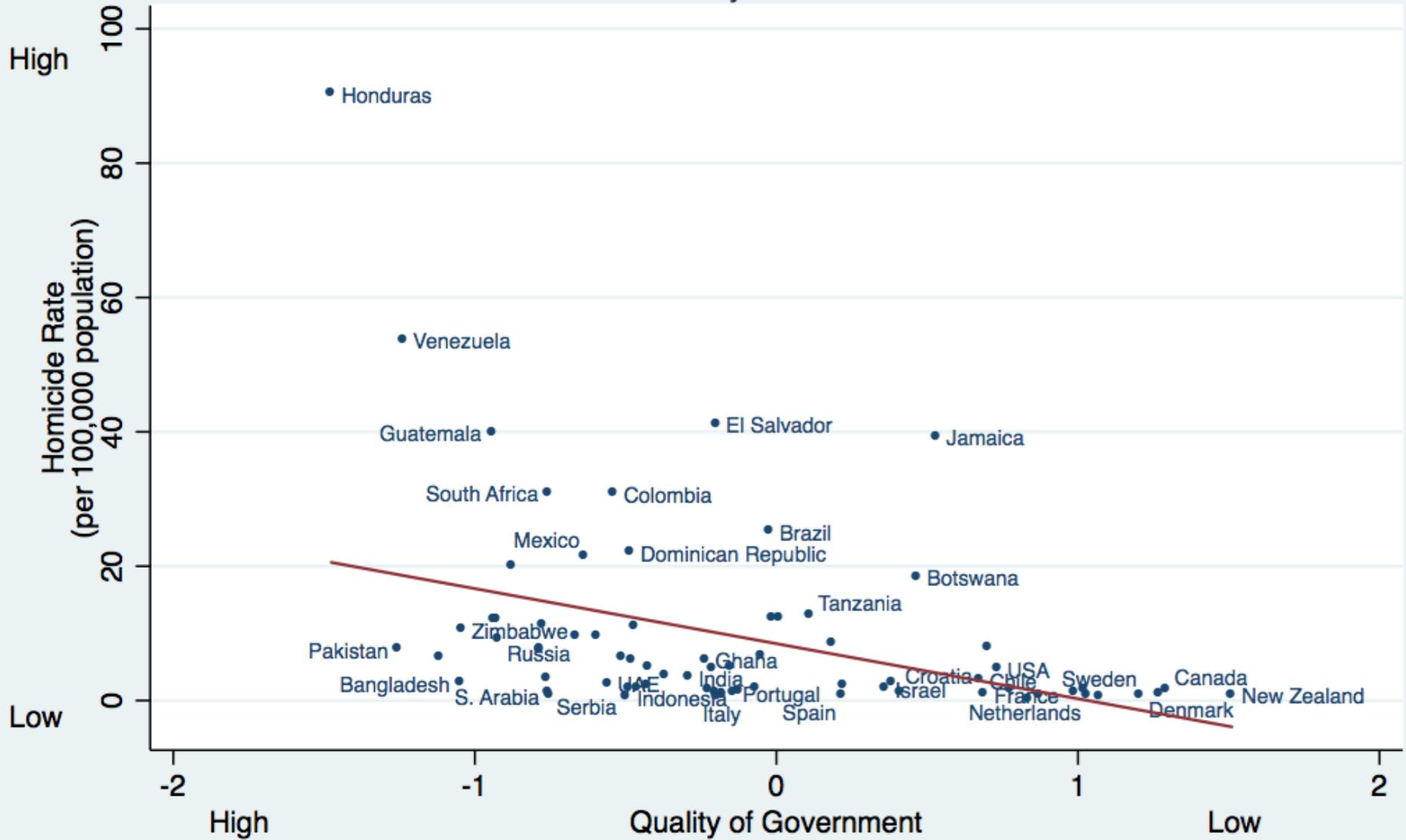
### Secondary Education Enrollment (Female) vs. Quality of Government



Sources: Teorell et al. 2011; UNESCO 2012 (Data: 2006-2011)



### Homicide Rate vs. Quality of Government

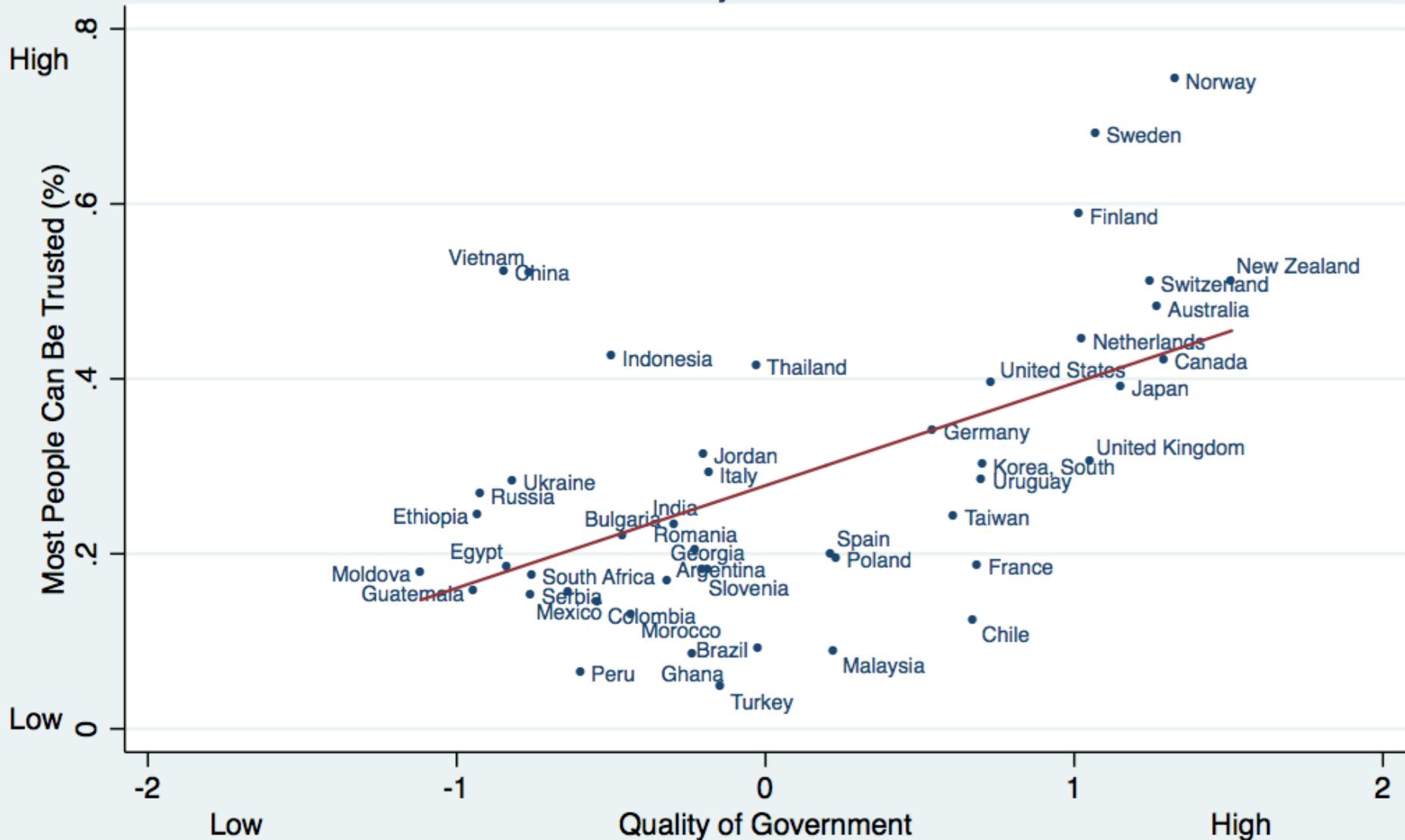


R-squared= 0.16

Number of Observations= 74

Sources: Teorell et al. 2011; UNODC (Data: 2012)

### Interpersonal Trust vs. Quality of Government

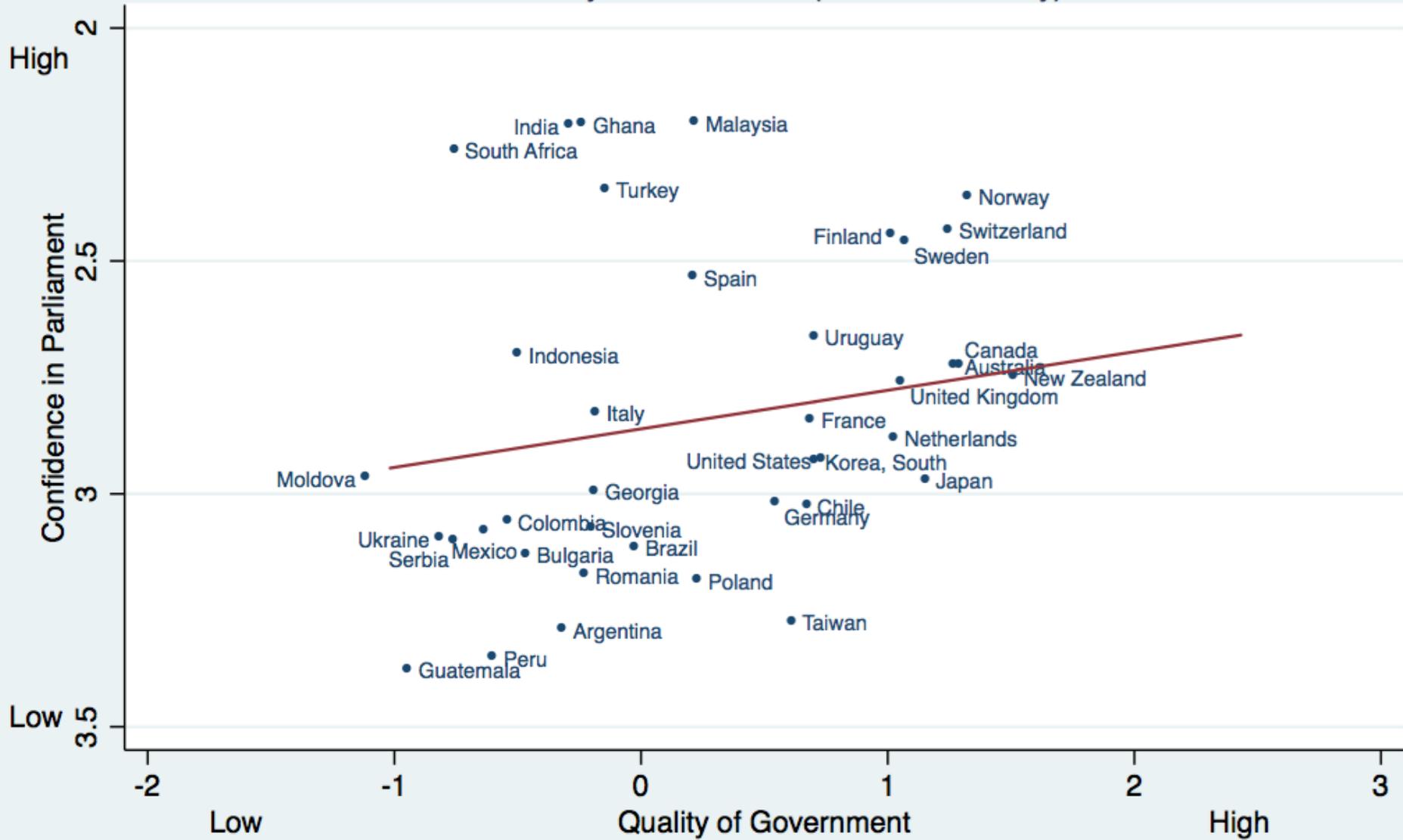


R-squared= 0.30

Number of Observations= 47

Sources: Teorell et al. 2011; World Values Survey (Data: 2004-2008)

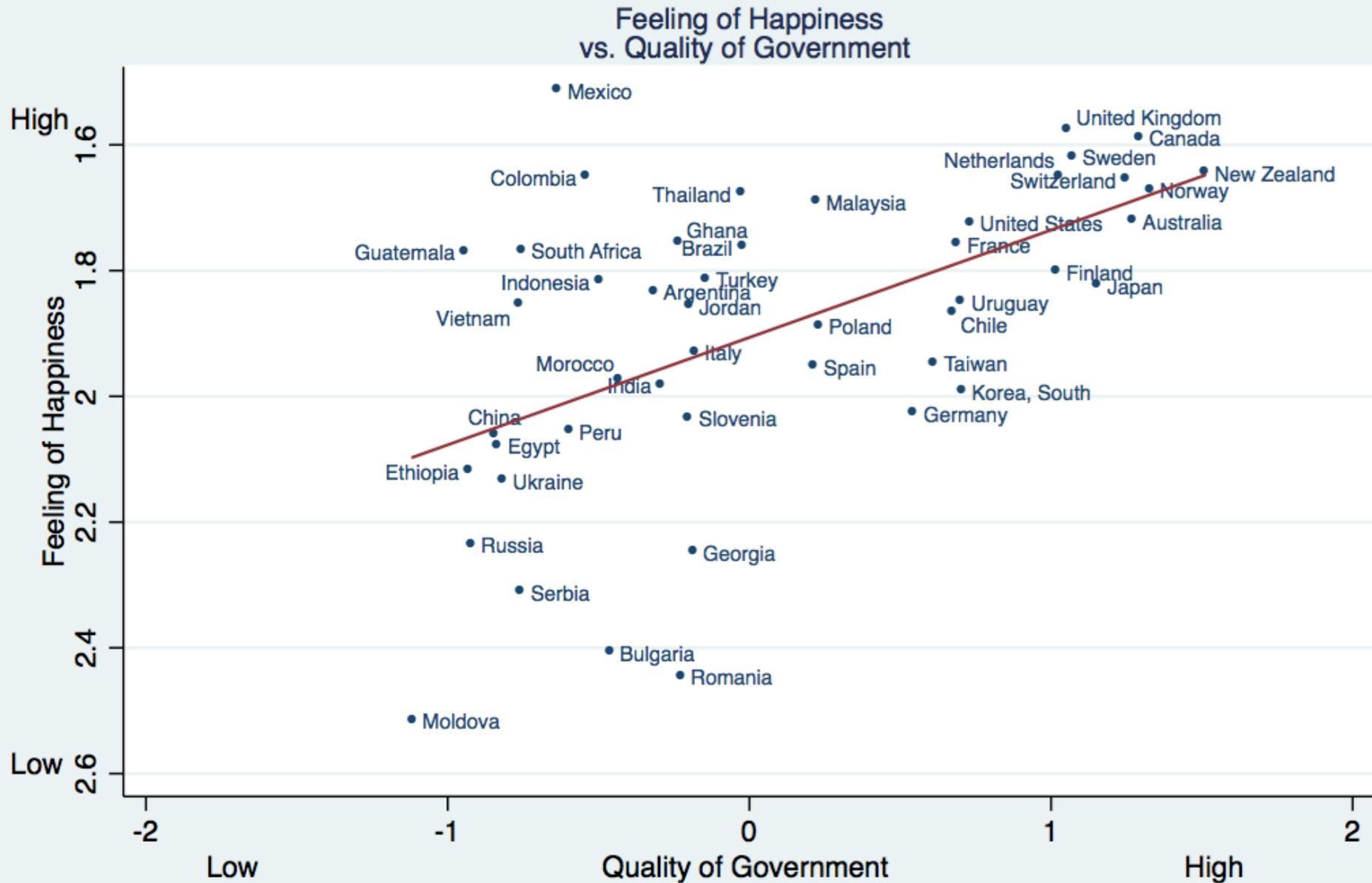
### Confidence in Parliament vs. Quality of Government (Democracies only)



R-squared= 0.09

Number of Observations= 39

Sources: Teorell et al. 2011; Freedom House / Polity; World Values Survey (Data: 2004-2008)

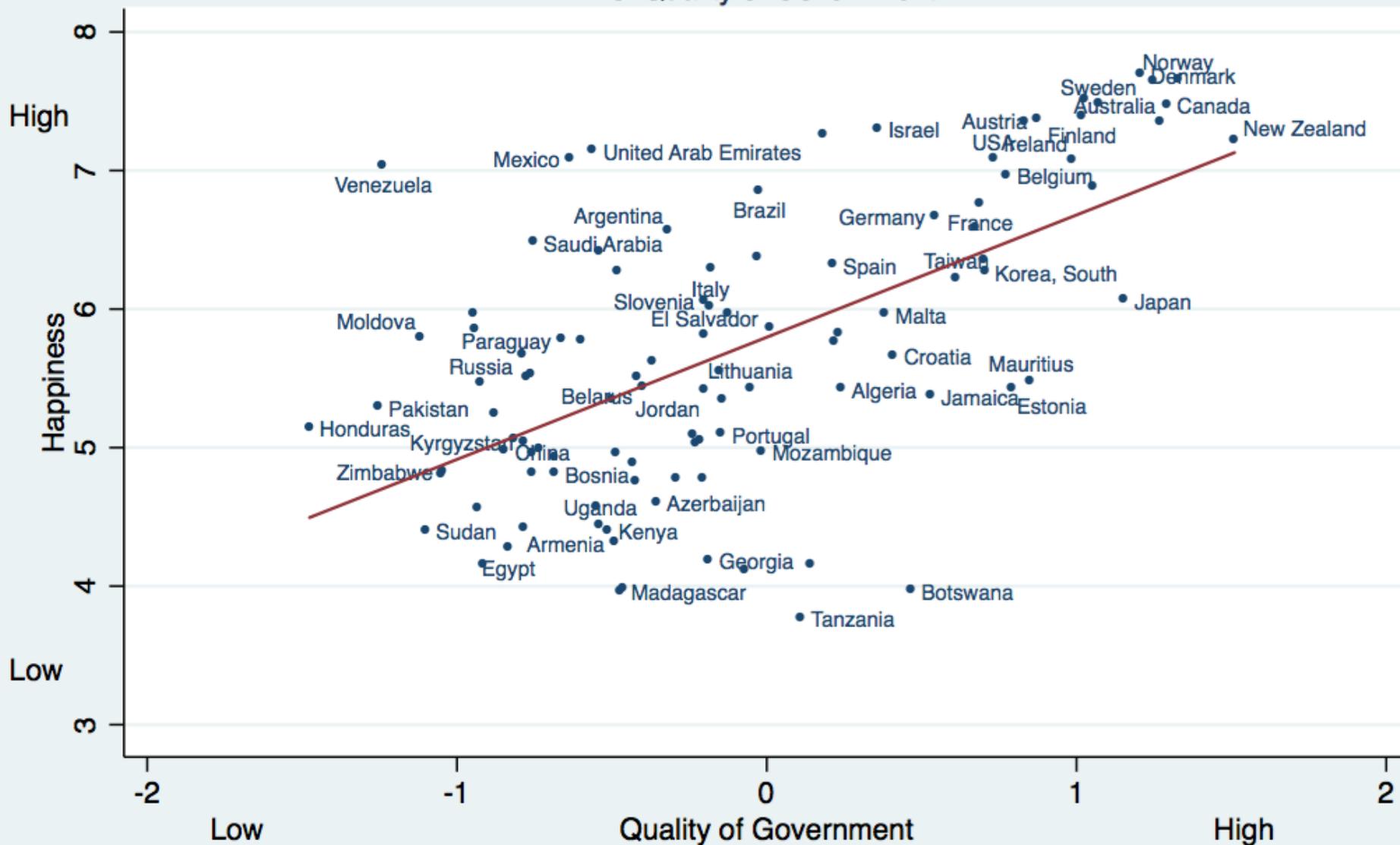


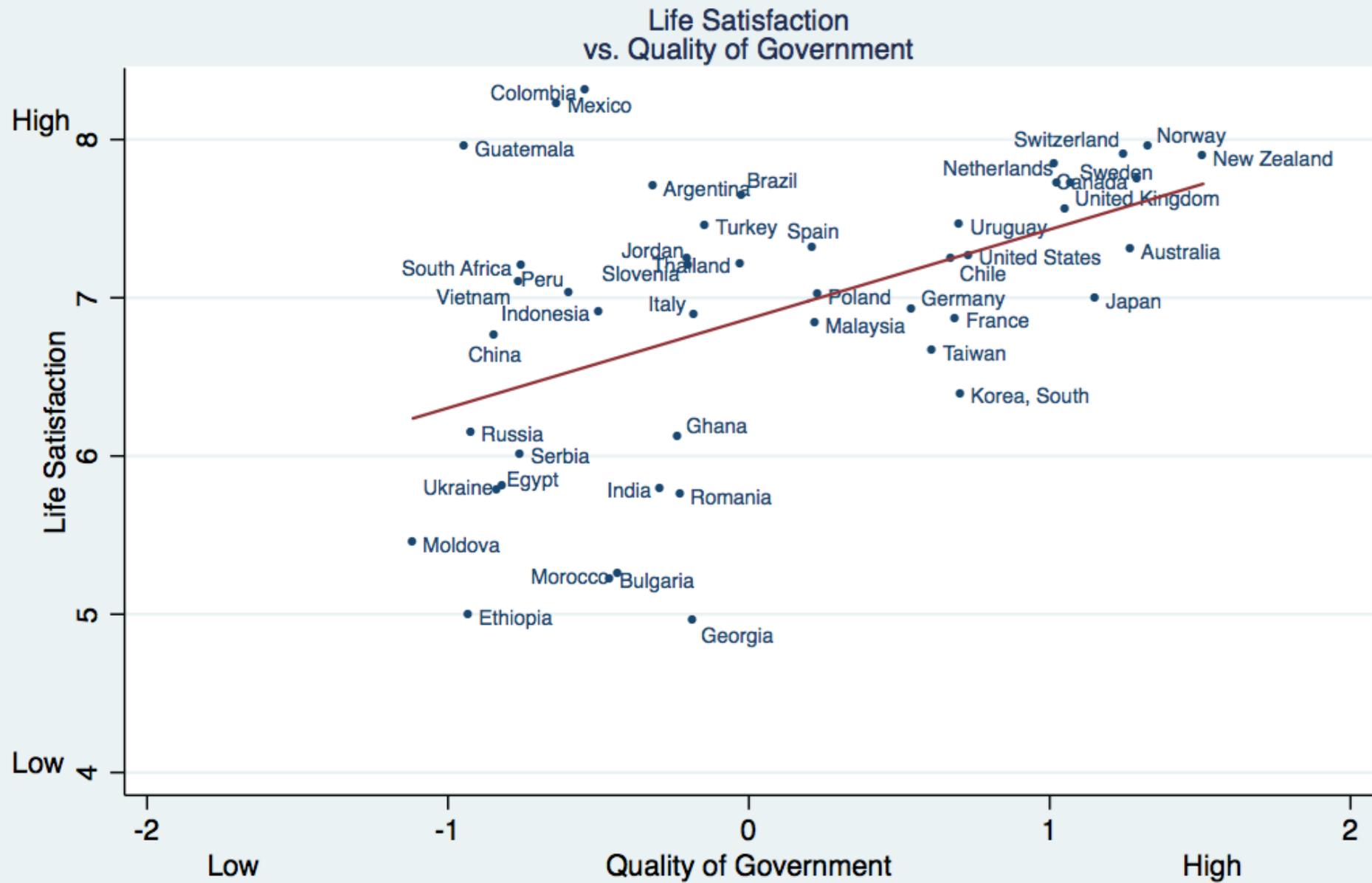
R-squared= 0.31

Number of Observations= 47

Sources: Teorell et al. 2011; World Values Survey (Data: 2004-2008)

### Happiness vs. Quality of Government



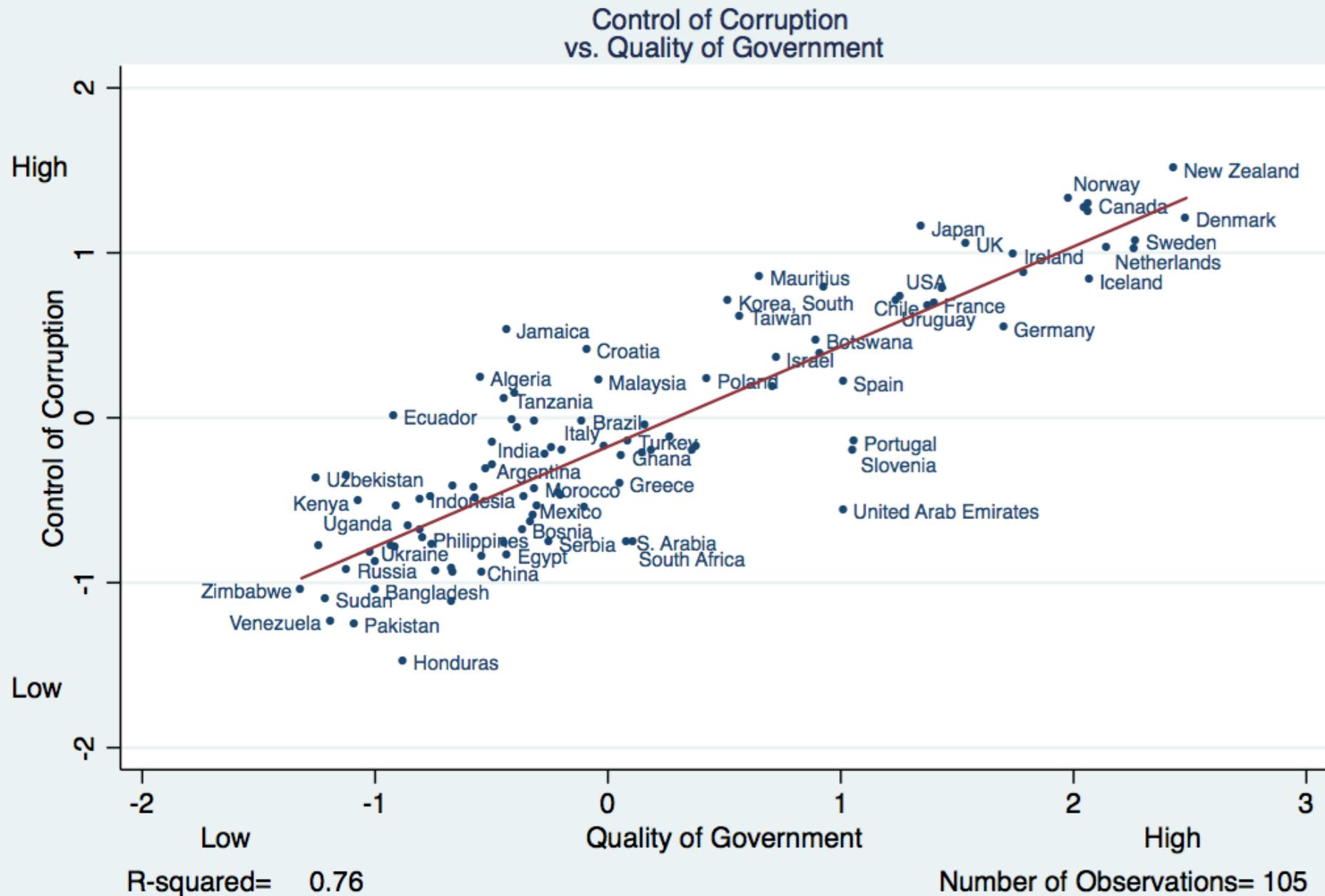


R-squared= 0.24

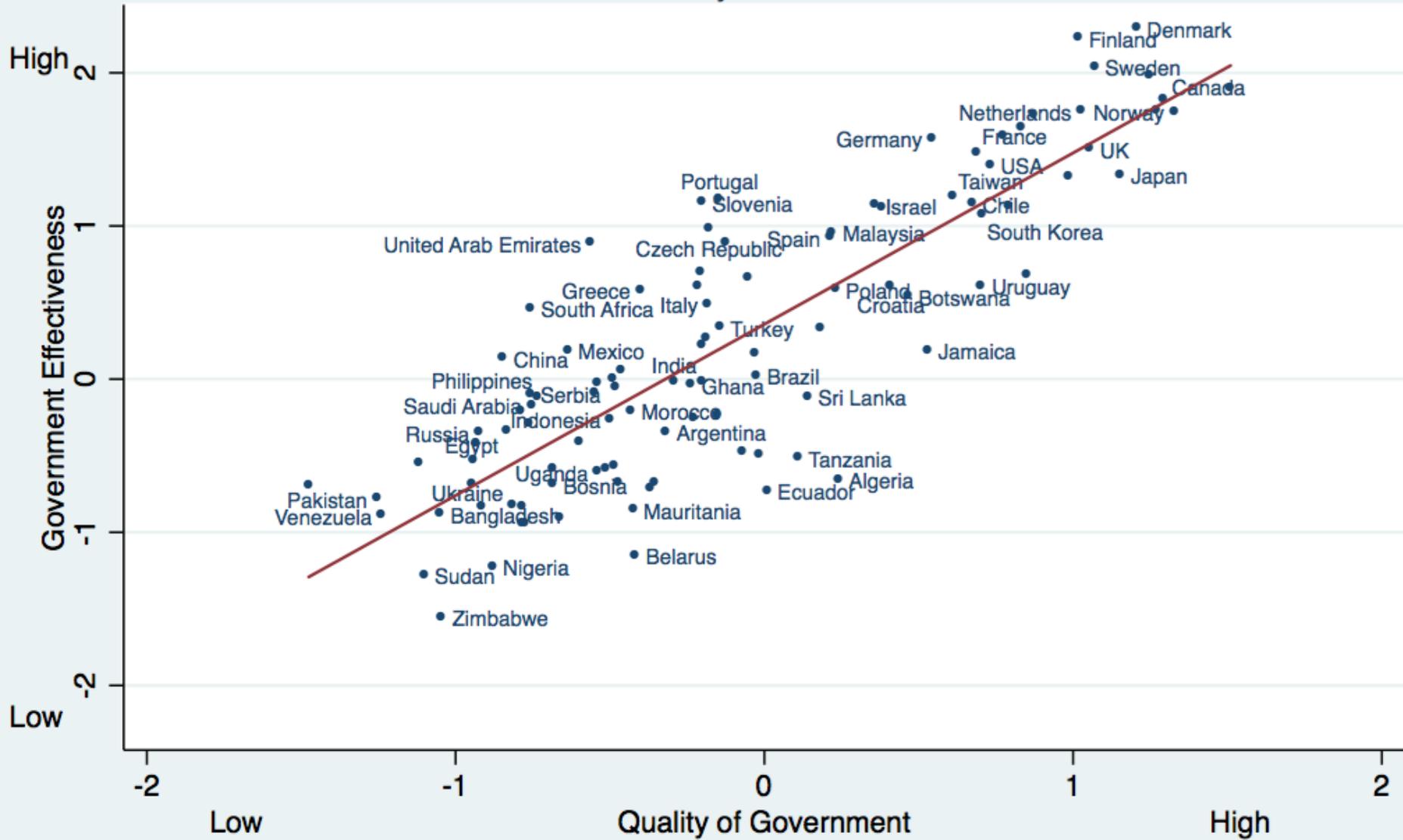
Number of Observations= 47

Sources: Teorell et al. 2011; World Values Survey (Data: 2004-2008)





### Government Effectiveness vs. Quality of Government



R-squared= 0.73

Number of Observations= 105

Sources: Teorell et al. 2011; World Bank (2009)



# Correlates of Quality of Government– Description of variables<sup>1</sup>

## **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 equalized (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.

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<sup>1</sup> Some of the variables have been reversed in the scatterplots in order to make the interpretation more intuitive. Felix Hartmann provided research assistance.

### **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

## **Feeling of Happiness World Values Survey**

Taking all things together, how happy would you say you are?

- 1. Very happy
- 2. Quite happy
- 3. Not very happy
- 4. Not at all happy

## **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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