Team Control #18020712

Economic growth has always been the important consideration and goal for governments around the world. This therefore draw force a series of questions concerning growth itself. This paper is thus designed to build a model that can econometrically describe growth using past data, calculate the impact of education, and estimate whether 7% growth is possible for the Chinese economy for the next 20 years.

The first part of our model deals with the question of building an econometric model to empirically describe economic development, especially the relationship between education and development. As the economy is buildup of multiple elements, we first determine the main factors influencing the economy, with the example of education as the independent variable to the model. Then we select 24 countries in the world that are representative accordingly. Utilizing the method of *multi factor linear regression* to historic data in a stable period of 25 years, we ascertain the correlations between growth and the selected factors in a universal model.

The result of the regression is not satisfying because of the huge differences between countries. Thus, we divide the basket of selected countries into three categories based on income level and proceed with the regression process respectively. This gives us three precise models. **Specifically, in middle-income countries, the effect of education to growth is positive and highly significant (with the highest coefficient of 1.53), yet the impact of labor force is slightly negative (the ratio is -1.1).**

The second part of our model mainly deals with predictions to future growth.

Firstly, we use the coefficients of the factors in the previous model to determine how important education is to the economy in future years. **We find out that in low and middle-income countries, the coefficient for education is 0.09 and 1.53, the highest among all coefficients, meaning that the impact of education is the most important boost and greatly significant. In rich countries, however, education's boost seems to have reached its "bottleneck" as its coefficient drops to 0.06.**

For the second part on estimating future growth rates, we use the *ARIMA Model*, a non-linear recursive prediction model, to first expand the time series of the factors in the previous model. By doing this, we can calculate and predict the data of education, endowment, etc. in the future 20 years. Putting the data into the previous regression model, we can calculate the future growth rate. **The result is GDP growth rate would first increase to approximate 10% and slowly decline throughout the two decades.**

For the third part, estimating whether 7% is possible, we substitute the 7% rate and other expanded factors' data into the function, calculating the value that *Education Index* should be if 7% is to be guaranteed. As China would enter the ranks of high-income country in 5 years, the prediction utilizes two separate models. **The result shows that through large educational improvement, 7% growth can be guaranteed.**

Combining the factors above, we give out several suggestions to the Chinese government, including developing education and solving unemployment.

At the end of this paper, we analyze the strengths and weaknesses of our model, including but not limited to feasibility, efficiency and authenticity of our model.

Introduction

Economic growth has always been the important consideration and goal for governments around the world. This expectancy, importance and the complexity of the economy therefore leads to a series of questions concerning growth itself. This paper is thus designed to build a model that can econometrically describe growth using past data, calculate the impact of education, and estimate whether 7% growth is possible for the Chinese economy for the next 20 years.

Restatement

- ✧ The first question requires our team to provide a model to econometrically describe economic growth, using independent variables including education, population and other factors.
- ✧ In the second question, our team is asked to use the model in the first question to analyze how education affects the economic growth in the future, evaluate whether it is plausible for China to maintain an economic growth of 7% in the following 20 years and to offer suggestions to the Chinese Government on this issue.

Definition of Important Terms

Capital Endowment: the amount of land, labor, capital that a country possesses and can be exploited for manufacturing

Labor Force: Labor force comprises people ages 15 and older who supply labor for the production of goods and services during a specified period. It includes people who are currently employed and people who are unemployed but seeking work as well as first-time job-seekers. Not everyone who works is included, however. Unpaid workers, family workers, and students are often omitted, and some countries do not count members of the armed forces. Labor force size tends to vary during the year as seasonal workers enter and leave. [1]

Arable Land Proportion: Arable land refers to the share of land area that is arable, under permanent crops, and under permanent pastures. Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded. Land under permanent crops is land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber. This category includes land under flowering shrubs, fruit trees, nut trees, and vines, but excludes land under trees grown for wood or timber. Permanent pasture is land used for five or more years for forage, including natural and cultivated crops.[2]

General Assumption and Justifications

- ✧ **Assumption I**: War, political crisis, huge natural disasters, systematic financial crisis and phenomena that have a low possibility of occurring in today yet might cause huge destruction to the world economy is not considered in the model.
  Justification: The events stated in Assumption I are rare, hard to predict, yet may cause catastrophic damage and fluctuation to economic development and growth. Thus, it is a surplus to consider it.
- ✧ **Assumption II**: A country's governance index can be seen as a constant in the future 20 years.
  Justification: As according to historic data published by the World Bank[3], a country's governance do not change significantly throughout the past decades. And also as there is no justification to believe that a country's governance moves in a specific trend (it is mainly influenced by election results), it is justifiable to see it as a constant that seldom fluctuates in the future 20 years.
- ✧ **Assumption III**: Economic growth and the factors relating to it have an approximate linear relationship.
  Justification: Previous works done by Buyuan Zhang[4], Jing Wen[5], Fang Guo[6] all adopt the assumption of linear relationship between studied factors and growth. Thus, it is justifiable to adopt the same assumption that the relationship is linear.

Symbols

Table 1 Symbols

Symbols	Meaning
G	GDP growth
ALP	Arable land proportion to a country's total land
EI	Education Index
FLP	Forest land proportion to a country's total land
LF	Labor force (defined in the definition section)
PGDP	Previous year GDP
POP	Population
GOV	Government Efficiency Index
C	Regression constant
X	A vector that includes all independent variables
a	A vector that includes all the coefficient for the variables

Analysis of the Model

1. Model for the First Question

For the first question on building an econometric model to describe growth, we are required to give out a function that can describe economic growth based on a cluster of other factors. Econometrics is defined as the application of statistical methods to economic data that aims to give empirical content to economic relations. As we need to determine the relationship between different economic indicators, the idea of using the method of multi factor linear regression naturally come to mind.

1.1 Determine the factors

In order to regress and calculate the function, we need to first determine the factors that are needed. The initial GDP per capita, used to represent the base for economic development, is a key factor that determines the baseline for a countries development. Education, as according to Sameeo Sheesh et al. at the BRAC University, have a high influence on the economy and especially in Medium-Income Countries[7]. Factor endowment, as defined as the amount of land, labor, capital that a country possesses and can be exploited for manufacturing[8], is also highly related to economic growth as according to Natasha Xingyuan Che from the IMF.[9] Governance, a factor indicating a country's government's effectiveness and efficiency is also crucial in discussing economic growth states a paper from the World Bank Institute.[10] Population should also be considered as it decides the scale of a country's development.

For initial income level, we use the previous years' GDP per capita as the indicator.

As there is not a direct index or variable to represent capital endowment directly, we split this variable into multiple factors, including a country's labor force, arable land and forest land's percentage to total land.

For education, we use the *United Nations Education Index*, an index indicating the average years of education a country's people is estimated to receive at a given year. The index is a number in the range [0, 1] that considers the mean years and expected years of schooling for a country's citizens.

For governance, we use the *Government Efficiency Index* published by the World Bank to show how effective the country's government is.

The other factors including population is described using data from the world bank.

1.2 Preprocess the data

Before going through the regression process, we need to pre-process our data.

We first determine the year span that we need to consider. As according to the Heritage Foundation [11], the first part of the 20th Century is not a good period to study as the huge fluctuation on the economy caused about by the two world wars is greatly distracting to a model aimed at predicting future growth in peace times. The middle and last part of the 20th Century is also a bad choice as the Cold War, a rare political event that has a huge and possibly negative effect on economic growth, is also not relevant to the 21th Century. Thus, we select the period between 1990 to 2014, a span of 25 years that avoids massive political events and huge scale wars as many as possible.

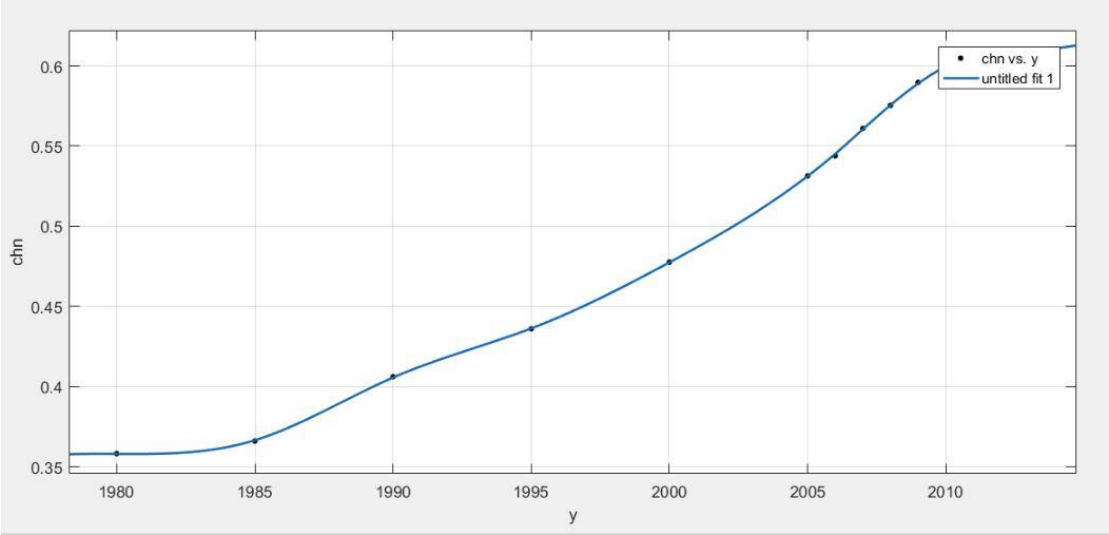
Also, as there is no point in processing every single country in the world, we select some of the most representative countries out of the entire more than 200 countries. In such a process we need to select countries from all regions, with all levels of income and sufficient statistical data (countries with the example of South Africa have large pieces of data missing in the late 20th century). In the end, we select 24 countries throughout the world including Albania, Australia, Bolivia, Brazil, Botswana, Canada, Chile, China, Democratic Republic of Congo, Germany, Egypt, United Kingdom, Haiti, India, Indonesia, Iran, Italy, Japan, Kazakhstan, Mexico, Russia, Saudi Arabia, Sweden and United States of America. These countries are all representative in there all way.

The Democratic Republic of Congo, for example, is a representative for low income countries and African countries while Kazakhstan is a typical Central Asian country with middle income. We extract the data from the 24 countries, forming the ones we need to process.

As data in some countries are not complete and some even lack specific statistical data in certain years, we use spline curves to fit the data points as a function of time and to interpolate the data points in the middle that are missing. Spline curves are utilized because the indicator of data fitness, R^2, should exceed a certain leverage to be acceptable, and spline curves' R^2 could exceed 0.95 in this specific scenario. By utilizing this method, we fill the gaps in the data matrices. An example of this process is demonstrated in Graph 1 and Table 2 below using China's Education data.

Table 2 Data Before Interpolation

Year	1990	1995	2000	2005	2006	2007
EI	0.406	0.436	0.478	0.531	0.544	0.561
Year	2008	2009	2010	2011	2012	2013
EI	0.575	0.590	0.599	0.610	0.610	0.610



Graph 1 Spline Fitting Curves

Then we go through a process of data standardization. This process is necessary as variables with different dimensions have no meaning when calculating. Also, to narrow the influence brought about by the difference of inherently large and small numbers (population might seem to have a smaller impact than education simply because of its large scale), we map all data points into the interval [0, 1].

For most *PGDP*, we first calculate the difference between a country's specific data and the mean of all 24 countries and year span of 25 years before dividing it by the range of the 24 x 25 variables. The expression of the standardization process is shown below:

$$y_{ij} = \frac{x_{ij} - m_s}{M_s - m_s}$$

In which:

$$m_s = \min_{p \in [1,24], q \in [1,25]\ p,q \in Z} x_{pq}$$

$$M_s = \max_{p \in [1,24], q \in [1,25]\ p,q \in Z} x_{pq}$$

As the *Education Index* is already a number in the interval [0, 1], *EI* does not need to be changed.

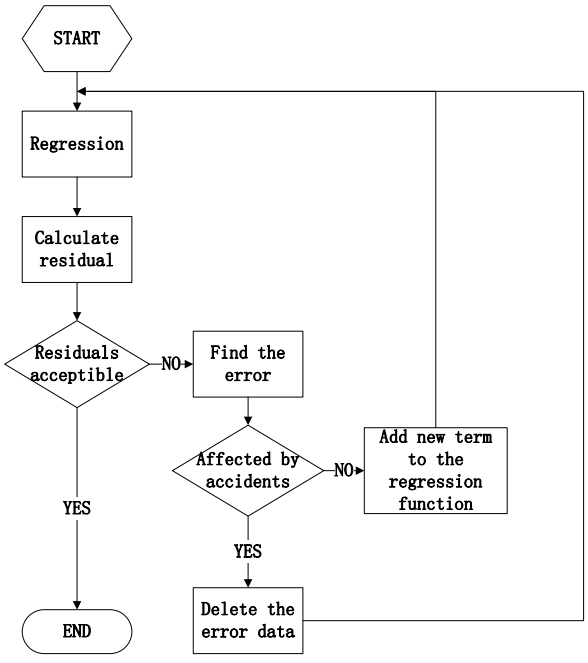
To demonstrate the population growth relative to the global average, we standardize the factor indicating population, which is to calculate the proportion of the country's population to the total sum of the population in 24 countries. The expression is shown in the expression below:

$$POP = \frac{POP}{Total\ sum\ of\ \ population\ in\ 24\ countries}$$

LF is standardized by dividing it to the country's total population.

1.3 Regress of a universal model

The process of the MATLAB program that regresses the data is shown in the flowchart below.



Graph 2 Regression Flowchart

We then use MATLAB to carry out the regression process using data from all 24 countries we chose, we reached the result that 202 of the 24 x 25 data points' confidence interval is not acceptable. Even though certain data points can be explained using international political, environmental and other extreme events, the number of data points erased is a little too much to be acceptable. Thus, we concluded that a universal

model is not the best fit to represent the function and therefore cannot be applied. To countries of different levels of development, the impact of these independent variables on their GDP growth rates should vary.

1.4 Regression of three separate models

Based on the average income level of the 24 countries, we divide the countries into three categories. According to the World Bank, countries in the world are separated into low-income countries, lower-middle income countries, upper-middle income countries and high-income countries[12]. Countries that belong to low-income countries or lower-middle income countries are put in the first category. Those with upper-middle income countries are put in the second category. Countries that belong to high-income countries are put in the third category. The result of the categorization is listed in Table 3:

Table 3 The Three Category of Countries Divided by Income

Category I: Low and Lower-Middle Income Countries	*Category II: Middle Income Countries*	*Category III: High-Income Countries*
Bolivia	Albania	Australia
Congo, Democratic Republic	Brazil	Canada
Egypt, Arab Republic	Botswana	Germany
Haiti	Chile	United Kingdom
Indonesia	China	Italy
India	Iran, Islamic Republic	Japan
	Kazakhstan	Saudi Arabia
	Mexico	Sweden
	Russia	United States of America

Then we calculate the regression model with the three specific categories, reaching the result. The expression of the model is shown as below:

$$X = (ALP, EI, FLP, LF, PGDP, POP, GOV, 1)$$
$$a = (a_1, a_2, a_3, a_4, a_5, a_6, a_7, \mathrm{C})$$
$$G = a \cdot X^T$$

2. Model for the Second Question

2.1 Impact of education on the economy

We use the coefficient of the factors in the previous model to determine how important education is to the economy in future years. As the coefficients of the model will not change along with time, the impact would be similar.

2.2 Expanding time series

For the question on predicting future growth, we are required to forecast future growth on the base of present data, more specifically education. This requires us to extend our present data into future times and, in other words expand the time series of historical data of all the factors utilized. To achieve this, we use a version of the *ARIMA Model*, or the *Autoregressive Integrated Moving Average Model*, because ordinary

regression models have flaws and cannot be used to predict time series. If a series of data is not *statistically stable*, or if the series of averages, variances and covariances is related to time, the result of the regression has a huge probability of being spurious. A good example is that the height of a growing tree and the amount of a developing countries' economy may have a high match as the growing trend is similar even though the two phenomena have no connection.

The *ARIMA Model* is a non-linear recursive model used to analyze the trend of a particular discrete variable x. Let x_t denote the value of variable x at the t^{th} data point.

First of all, we compute the difference of variable x to the order of *d,* and we then obtain sequence $\Delta^d x_t$, in which *d* is the smallest integer that satisfies that $\Delta^d x$ is *statistically stable.*

Then, we determine the parameter p, where p represents the lags of the time series data. Thus, the autoregression expression can be written as:

$$\Delta^d x_t = \varepsilon_t + \sum_{j=1}^{p} (\Delta^d x_{t-j} \phi_j)$$

In this expression, ϕ_j is an undetermined coefficient, and ε_t denotes the residual at the t^{th} data point.

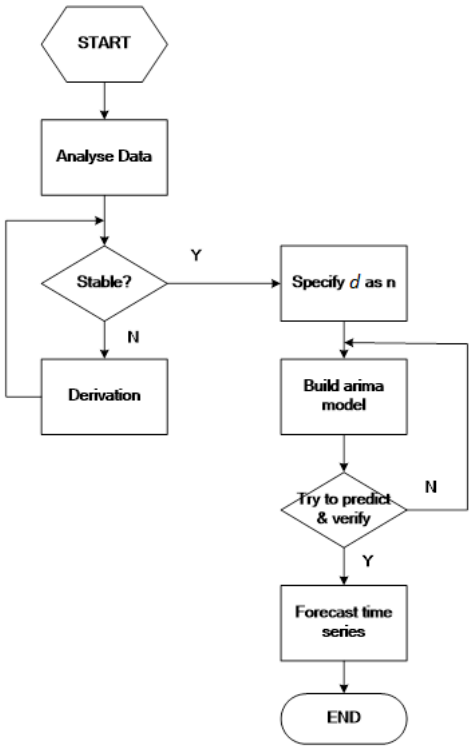
However, in many cases, $\Delta^d x_t$ has certain correlation with residuals. We assume $\varepsilon_{t-1}, \varepsilon_{t-2}, \dots, \varepsilon_{t-q}$ have influence on the value $\Delta^d x_t$. Therefore, we put q additional terms containing $\varepsilon_{t-1}, \varepsilon_{t-2}, \dots, \varepsilon_{t-q}$ respectively to the original formula and generates the expression below:

$$\Delta^d x_t = \varepsilon_t + \sum_{j=1}^{p} (\Delta^d x_{t-j} \phi_j) + \sum_{j=1}^{q} ((\varepsilon_{t-j})\, \theta_j)$$

In this expression, θ_j is an undetermined coefficient.

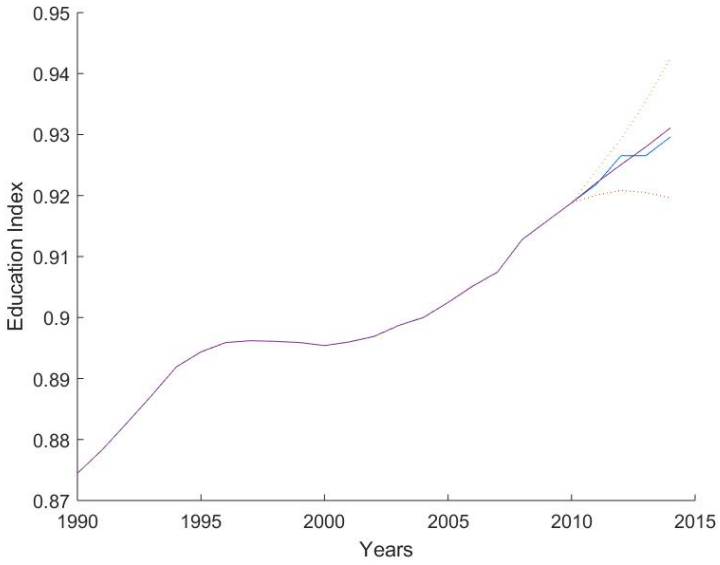
Through regression, for any integer *t*, the values for $\phi_1, \phi_2, \dots, \phi_p$ and $\theta_1, \theta_2, \dots, \theta_q$ can be determined.

The flow chart of the MATLAB program to run the *ARIMA Model* is shown in the flowchart below.



Graph 4 Expand Time Series Flowchart

A test of the *ARIMA Model* can be shown in Graph below.



Graph 5 Test of the *ARIMA Model*

Using the data of the *Education Index* from the past 20 years and use it to predict the data in the last 4 years and then compare it to the real data. The purple curve in Graph is the predicted data, while the blue curve is the actual data. The curve is reached with $p = 4, d = 3, q = 2$. The high fit between the two curves show that the model is appropriate.

2.3 Forecast GDP growth

After expanding the time series, we need to give out a forecast of future GDP growth. This can be achieved by substituting the expanded time series into the previous model, therefore reaching the result.

2.4 Calculate the feasibility growth

Then, we need to answer the question of whether 7% growth is achievable by adapting the level of education in a reasonable range. We first assume that 7% growth is reachable. This requires us to substitute the other value into the model, then in turn solving it to calculate the level of the Education Index needed to achieve the proposed growth. With the targeted GDP growth in mind, we can substitute the 7% growth into the model. Thus, we now have got all the other data in the equation except education.

Solving the Model

1. Solving the First Question

1.1 Data processing

We first gather the data that is needed, data sources include the World Bank (data of the countries' initial GDP, governance, population, labor force, forest and arable land proportion) and the United Nations (*United Nations Education Index*). An example of the transformation of the agricultural data in Albania is shown below in Table 4.

Table 4 Standardization of data

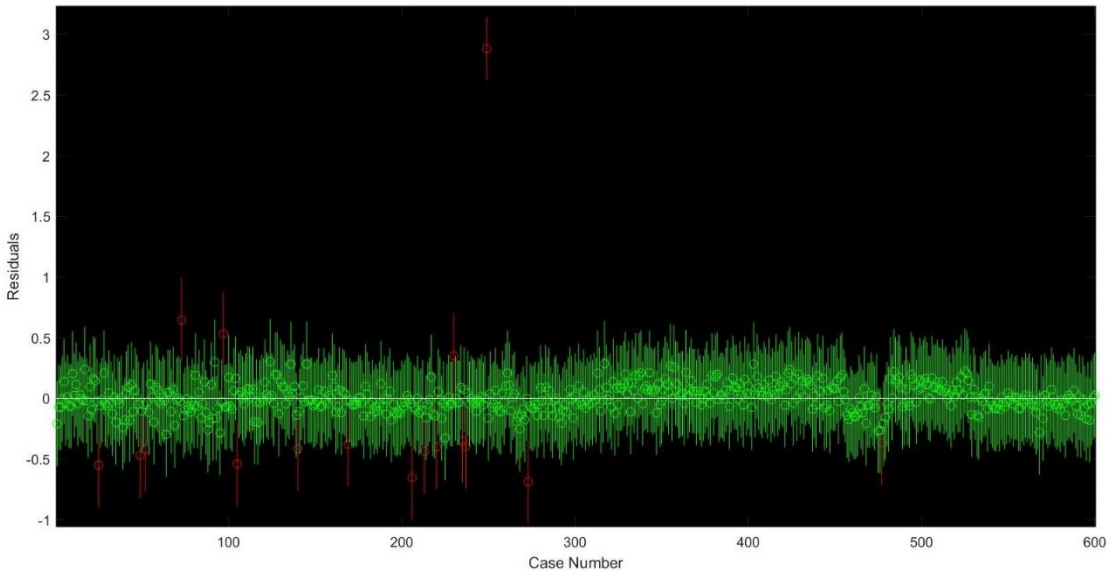
Year	*ALP* before	*ALP* after
1990	40.91241	0.4091241
1991	41.13139	0.4113139
1992	41.13139	0.4113139
1993	41.09489	0.4109489
1994	41.09489	0.4109489
1995	41.13139	0.4113139
1996	41.27737	0.4127737
1997	41.42336	0.4142336
1998	41.56934	0.4156934
1999	41.78832	0.4178832
2000	41.75182	0.4175182
2001	41.56934	0.4156934
2002	41.60584	0.4160584
2003	40.91241	0.4091241
2004	40.94891	0.4094891
2005	39.30657	0.3930657
2006	40.87591	0.4087591
2007	40.83942	0.4083942
2008	43.10219	0.4310219
2009	43.84307	0.4384307

2010	43.84307	0.4384307
2011	43.83212	0.4383212
2012	43.84307	0.4384307
2013	43.33212	0.4333212
2014	42.85730	0.4285730

The data in the left row is the original data, while the data in the right row is the data after standardization.

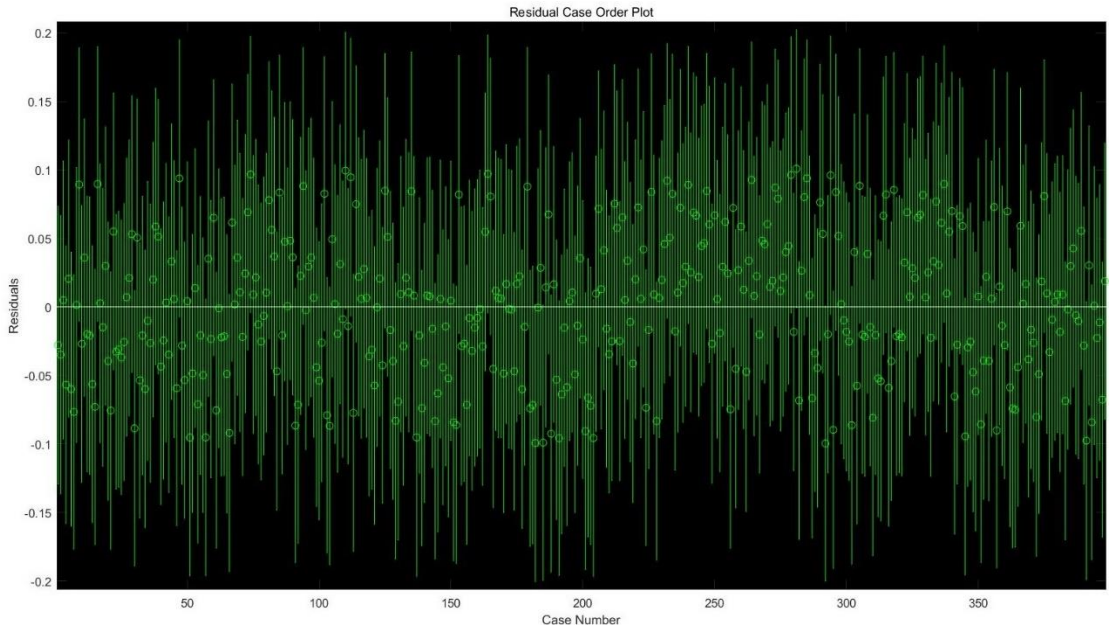
1.2 Regression of the universal model

The data then go through the process of linear regression model to fit the function. The result of the first regression process is shown in Graph below.



Graph 6 Original Residual Map

If the residual of a specific data point does not include the predicted value, in other words the *confidence interval* does not include 0, this data point should not be considered and therefore deleted. After each regression process, we delete the data point which has the largest residual and carry out the linear regression again. This process is repeated for a certain number of times until the residual of every data point is reliable. Eventually, 202 of the 600 data points are deleted. This final residual graph is shown below:



Graph 7 Final Residual Map

We then analyze the 202 deleted data points and check if any unpredictable incidents happened to the country in that particular year. We found out that most deviated data points are results of warfare, financial crisis and natural disasters.

For instance, the residual of Congo in 2000 is 2.6274, while the residual at 2001 is 0.3886. This huge deviation is a result of the Second Congo War lasting from 1998 to 2003. In 2000, both sides reached a ceasefire agreement, and Congo's economy underwent a sudden boom, increasing from 102 dollars to 405 dollars per capita. However, in 2001, after the assassination of President Laurent-Désiré Kabila, the war restarted, and Congo's economy fell rapidly, decreasing to 153 dollars per capita. [13] As these steep changes are caused by political changes with low possibility, the data is not relevant and can be ignored.

Another example is the Ruble Crisis that occurred in Russia during late 1990s[14]. This caused the residual of Russia in 1998 to be an abnormal 0.2080. Systematic financial risks of low possibility that are hard to calculate and irrelevant today is the cause of this unusual change in trend, thus it could also be ignored.

An additional example is the Hurricane Katrina in the US. This event caused a significant decline in the figure of the US's GDP per capita[15]. The residual at this data point is 0.0127. Natural Disasters like this are incidental and can't be predicted. Thus, neglecting data like this is justified.

Even if some data points can be reasonably neglected because of Assumption I, the number of the neglected points is a little bit too much to be satisfying.

1.3 Regression of the separate model

1.3.1 Low and lower-middle income model

In the lower and lower-middle income model designed of countries in *Category I*, the values of the coefficients are:

$$\begin{cases} a_1 = -0.4468 \\ a_2 = 0.0944 \\ a_3 = 0.5658 \\ a_4 = 0.0000 \\ a_5 = 0.0215 \\ a_6 = 0.7264 \\ a_7 = 0.0484 \\ C = -0.0883 \end{cases}$$

Therefore, it can be inferred from this expression that labor force is slightly negatively affecting the economic growth. As labor force contains both the employed and the unemployed at a certain age.[1] In these low-income and middle-income states, a considerable fraction of the labor force remains unemployed. For example, the unemployment rate in Botswana, Brazil and Haiti is 13.8%, 10.1% and 13.0%,[16] respectively. With the low-income level and poor economic condition in mind, the unemployed population has a high possibility of becoming criminals, causing harm to the society rather than good. This logic could be used to explain the negative coefficient of the labor force

1.3.2 Middle income model

In the model of countries in Category II, the values of the coefficients are:

$$\begin{cases} a_1 = 0.158156 \\ a_2 = 1.527256 \\ a_3 = 0.306215 \\ a_4 = -1.0677 \\ a_5 = -0.27165 \\ a_6 = 1.023103 \\ a_7 = -0.01159 \\ C = -0.48658 \end{cases}$$

The circumstance for countries in this category is in some ways similar to the ones in the previous category, only the impact of education is more significant (1.53), probably because of the refinement of infrastructure and other basic necessities. As basic infrastructure and country building increase in these countries, the impact of education increases and result in the coefficient of 1.53. Labor force on the other hand is still slightly negative with the same reason in low income countries.

1.3.3 High income model

In the model of countries in *Category III*, the values of the coefficients are:

$$\begin{cases} a_1 = 0.052308 \\ a_2 = 0.066746 \\ a_3 = 0.126723 \\ a_4 = 0.01278 \\ a_5 = 0.057036 \\ a_6 = 0.036103 \\ a_7 = -0.01876 \\ C = -0.03798 \end{cases}$$

Therefore, it can be inferred from this expression that labor force is a vital factor that positively affects the economic growth in developed states as its coefficient a_4 reached 1.27. We conclude that in high-income countries, the level of education is usually high, ergo every single labor force creates a relatively high wealth. In contrast, education seems to have reached its "bottleneck" and does not make that a significant impact to GDP growth rates because in these countries, education is extremely developed, and the differences of these figures are not significant.

2. Solving the Second Question

2.1 Education's future impact on economic growth

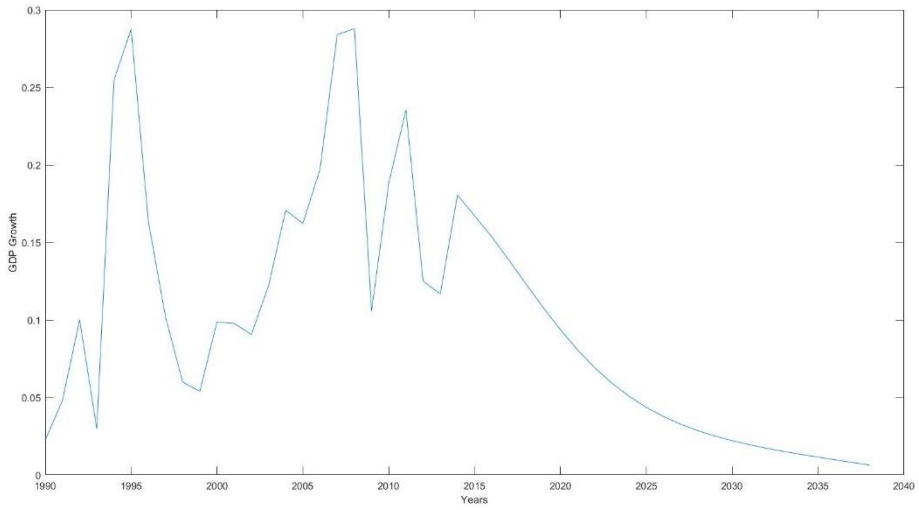
We find out that in low and middle-income countries, the coefficient for education is 0.09 and 1.53, the highest among all coefficients, meaning that the impact of education is the most important boost and highly significant. In rich countries, however, education's boost effect seems to have reached its "bottleneck" as its coefficient drops to 0.06.

2.2 Forecasting GDP growth

The result of future GDP growth is shown in Table 5 and Graph 8.

Table 5 GDP Future Growth Rate

Year	Growth Rate	Year	Growth Rate
2018	13.85%	2028	3.27%
2019	12.30%	2029	2.86%
2020	10.79%	2030	2.51%
2021	9.36%	2031	2.21%
2022	8.06%	2032	1.95%
2023	6.91%	2033	1.72%
2024	5.91%	2034	1.51%
2025	5.07%	2035	1.32%
2026	4.36%	2036	1.15%
2027	3.77%	2037	0.98%

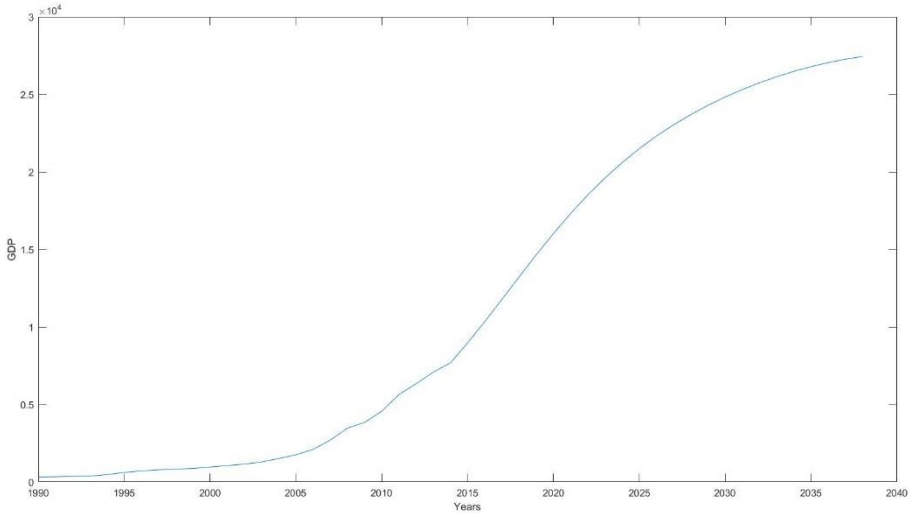


Graph 8 GDP Growth Rate

The forecasted GDP is shown in Table 6 and Graph 9.

Table 6 Future GDP Per Capita

Year	GDP	Year	GDP
2018	$13,902.99	2028	$27,196.43
2019	$15,613.64	2029	$27,973.25
2020	$17,297.85	2030	$28,674.37
2021	$18,916.51	2031	$29,307.42
2022	$20,440.71	2032	$29,878.58
2023	$21,852.80	2033	$30,392.60
2024	$23,145.34	2034	$30,852.90
2025	$24,318.83	2035	$31,261.70
2026	$25,379.11	2036	$31,620.15
2027	$26,334.99	2037	$32,391.59



Graph 9 GDP Per Capita

As the coefficients fluctuates in a region, it is possible that GDP growth will fluctuate in a region, it is also possible that the growth rate and GDP will fall into the upper and lower area on Graph 8 and 9.

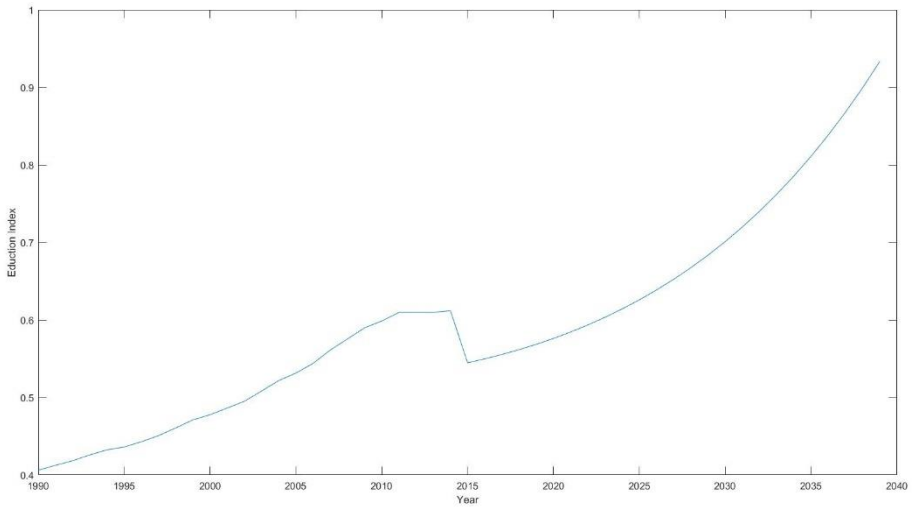
2.3 Determining whether 7% is possible

In this section, we need to consider two scenarios, the first when China is a Medium-Income country, the second when China reached the leverage between medium and high-income and become a high-income country. Thus, the result is divided into two sections. From the section above, we observe that after 5 years, in 2022, China would enter the ranks of a high-income country, thus we need to apply the high-income model and to analyze the data.

The Education Index needed to achieve 7% growth in the medium-income model is shown in Table 7 and Graph 10.

Table 7 *Education Index*

Year	GDP	Year	GDP
2018	0.576109089	2028	0.701013508
2019	0.584397313	2029	0.719872452
2020	0.593463251	2030	0.740210285
2021	0.60335978	2031	0.762126523
2022	0.614142598	2032	0.785728249
2023	0.625870539	2033	0.811130819
2024	0.638605924	2034	0.838458658
2025	0.652414963	2035	0.867846131
2026	0.667368176	2036	0.89943852
2027	0.683540847	2037	0.93339312



Graph 10 *Education Index* in the Medium-Income scenario

In the medium-income scenario, we can see that the level of education needed is in a reasonable level, in other words, the 7% growth rate is achievable in the medium-scenario, in other words the first 5 years.

As the relationship between education and growth is lower in the high-income scenario, the Education Index would definitely be in an acceptable range.

2.4 Suggestions to the Chinese government

Based on the results we concluded from the model and the current situation of China, we provide the following suggestions to the Chinese Government.

First, according to the linear regression formula for middle-income states, education is strongly and positively correlated with economic growth (the coefficient is 1.53). Thus, in order to promote economic growth in China, the most straightforward and effective way is to invest in education.

Also, we discovered that, in many cases, such as in Brazil and Haiti, labor force is actually negatively related to growth. This is caused by high unemployment which is actually causing harm to the economy as the unemployed population are potential criminals. Nowadays, China's college graduates are struggling to find a job. More than 10% of Chinese college graduates remain unemployed. The Chinese Government should take certain measures to improve the marketization of education. Such practices can not only solve the problem of unemployment but also put advanced labors into the society, creating more wealth to the country.

Strengths and Weaknesses

1. Strengths

✧ Our model provides separate developmental models for countries of different income levels. The accuracy of this econometric model is higher than a universally-

applied model, which makes it more convenient for governments to draft their distinctive policies according to the current circumstance of the particular country.

- ✧ Our analyzed data from multiple representative countries throughout the world and abundant data that is relatively stable.
- ✧ Our prediction model used to expand the time series, is based on the *ARIMA* model, which is a better prediction than ordinary linear regression.
- ✧ Our model is highly relevant to the future decades and is meaningful to the present.

2. Weakness

- ✧ Even though real-life scenarios including warfare, systematic financial crisis and natural disasters are important constraints of economic growth have low possibility of occurring. Our model does not take the factors above into account and is unable to predict the happening of such events.
- ✧ Different administrations have different levels of governance. As this model cannot predict results of future elections, we can only assume the governance of a certain country is a fixed value, whereas in reality the governance index will unavoidably alter.

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Appendix

Education Index

Each set of data is listed under the order of time from 1990 to 2014

ALB	Albania	0.537187	0.5351	0.533	0.5301	0.5287
AUS	Australia	0.874467	0.8783	0.8827	0.8872	0.8919
BOL	Bolivia	0.52785	0.5372	0.5457	0.558	0.571
BRA	Brazil	0.463059	0.4745	0.487	0.4982	0.5142
BWA	Botswana	0.45855	0.4686	0.4829	0.4979	0.5104
CAN	Canada	0.808756	0.8162	0.821	0.825	0.8268
CHL	Chile	0.625015	0.6249	0.6238	0.6201	0.6169
CHN	China	0.406144	0.4124	0.4183	0.4258	0.4324
COD	Congo, Dem. Rep.	0.253202	0.2556	0.2591	0.2631	0.2673
DEU	Germany	0.645878	0.6603	0.6763	0.7054	0.7246
EGY	Egypt, Arab Rep.	0.385544	0.3947	0.4061	0.4182	0.4279
GBR	UK	0.642178	0.665	0.6892	0.7256	0.7645
HTI	Haiti	0.284916	0.2896	0.2951	0.2981	0.3024
IDN	Indonesia	0.392867	0.3943	0.3971	0.4033	0.413
IND	India	0.31067	0.3165	0.3224	0.3282	0.3353
IRN	Iran, Islamic Rep.	0.381886	0.3954	0.4142	0.4392	0.4603
ITA	Italy	0.592051	0.6043	0.6136	0.6273	0.6381
JPN	Japan	0.699044	0.7073	0.7137	0.7216	0.731
KAZ	Kazakhstan	0.606267	0.6109	0.6162	0.6218	0.6286
MEX	Mexico	0.478678	0.4861	0.4909	0.4986	0.5052
RUS	Russian Federation	0.659578	0.6594	0.6584	0.6573	0.6579
SAU	Saudi Arabia	0.426673	0.4351	0.4463	0.459	0.4701
SWE	Sweden	0.692473	0.7085	0.7306	0.7514	0.7743
USA	US	0.833556	0.8415	0.846	0.8523	0.8581

ALB	Albania	0.528694	0.5336	0.5398	0.5493	0.5572
AUS	Australia	0.894367	0.8959	0.8962	0.8961	0.8959
BOL	Bolivia	0.577001	0.5881	0.5972	0.6077	0.6174
BRA	Brazil	0.523538	0.5355	0.5482	0.5616	0.5728
BWA	Botswana	0.515944	0.5281	0.5395	0.5524	0.5651
CAN	Canada	0.826444	0.8214	0.8161	0.8108	0.8082
CHL	Chile	0.615244	0.6181	0.6234	0.6319	0.6408
CHN	China	0.436044	0.4428	0.4507	0.4606	0.471
COD	Congo, Dem. Rep.	0.271867	0.2775	0.2828	0.2881	0.294
DEU	Germany	0.7388	0.7499	0.7587	0.7707	0.7808
EGY	Egypt, Arab Rep.	0.433767	0.4322	0.4307	0.4292	0.4304
GBR	UK	0.791137	0.8069	0.8183	0.8292	0.8322
HTI	Haiti	0.307197	0.3118	0.3164	0.3208	0.3269
IDN	Indonesia	0.4242	0.4396	0.455	0.4758	0.5
IND	India	0.339489	0.3421	0.3446	0.3473	0.3523
IRN	Iran, Islamic Rep.	0.4766	0.4906	0.5023	0.5143	0.5217
ITA	Italy	0.650003	0.6608	0.667	0.6766	0.6845
JPN	Japan	0.739787	0.7468	0.7523	0.7591	0.7641
KAZ	Kazakhstan	0.633433	0.6405	0.6505	0.6599	0.6722
MEX	Mexico	0.511389	0.5175	0.5248	0.5314	0.5385
RUS	Russian Federation	0.659967	0.6686	0.6799	0.6941	0.711
SAU	Saudi Arabia	0.481593	0.5013	0.5176	0.5382	0.5536
SWE	Sweden	0.791593	0.8079	0.8279	0.8459	0.8582
USA	US	0.860811	0.8595	0.857	0.8543	0.8518

ALB	Albania	0.565465	0.5726	0.578	0.5853	0.5914
AUS	Australia	0.8954	0.896	0.8969	0.8987	0.9
BOL	Bolivia	0.620389	0.6265	0.6379	0.6442	0.6491
BRA	Brazil	0.581496	0.5884	0.5944	0.6007	0.6092
BWA	Botswana	0.5761	0.585	0.5922	0.5997	0.6038
CAN	Canada	0.807522	0.8184	0.8211	0.8337	0.8452
CHL	Chile	0.6501	0.6599	0.6729	0.6863	0.6982
CHN	China	0.477639	0.4863	0.495	0.5082	0.5217
COD	Congo, Dem. Rep.	0.297204	0.3007	0.3047	0.3101	0.3133
DEU	Germany	0.7873	0.8025	0.8139	0.8286	0.8478
EGY	Egypt, Arab Rep.	0.433767	0.4483	0.4649	0.4885	0.5015
GBR	UK	0.835551	0.8451	0.8526	0.858	0.8619
HTI	Haiti	0.331144	0.3372	0.3422	0.3472	0.352
IDN	Indonesia	0.521347	0.533	0.5428	0.5524	0.556
IND	India	0.355378	0.3631	0.3713	0.3849	0.4
IRN	Iran, Islamic Rep.	0.526478	0.5301	0.5354	0.5395	0.5484
ITA	Italy	0.695473	0.7109	0.7216	0.7385	0.7496
JPN	Japan	0.766997	0.7716	0.7749	0.7786	0.7805
KAZ	Kazakhstan	0.682811	0.6953	0.7129	0.7291	0.7481
MEX	Mexico	0.544288	0.5546	0.5618	0.5716	0.5812
RUS	Russian Federation	0.722678	0.7338	0.7442	0.7537	0.7588
SAU	Saudi Arabia	0.565279	0.5796	0.5902	0.6011	0.609
SWE	Sweden	0.866283	0.8618	0.8544	0.8469	0.8317
USA	US	0.849882	0.8518	0.8539	0.8576	0.8624

ALB	Albania	0.59467	0.596323	0.597976	0.599629	0.600652
AUS	Australia	0.902473	0.905156	0.90744	0.912785	0.9158
BOL	Bolivia	0.653556	0.654628	0.6557	0.661633	0.667567
BRA	Brazil	0.614378	0.626789	0.6392	0.656959	0.657926
BWA	Botswana	0.607333	0.603	0.607	0.611	0.615
CAN	Canada	0.853167	0.852593	0.85202	0.851447	0.850873
CHL	Chile	0.707039	0.70527	0.71739	0.739644	0.737104
CHN	China	0.531396	0.543902	0.561038	0.575396	0.589753
COD	Congo, Dem. Rep.	0.316074	0.319715	0.323356	0.345978	0.349156
DEU	Germany	0.85801	0.872152	0.87494	0.877478	0.878565
EGY	Egypt, Arab Rep.	0.525222	0.534422	0.543622	0.552822	0.562022
GBR	UK	0.866236	0.853535	0.851945	0.858689	0.865432
HTI	Haiti	0.355258	0.359055	0.362851	0.366647	0.371331
IDN	Indonesia	0.559318	0.564134	0.56543	0.566893	0.58797
IND	India	0.408956	0.419614	0.430273	0.441627	0.444647
IRN	Iran, Islamic Rep.	0.553644	0.570162	0.58668	0.605976	0.616938
ITA	Italy	0.761746	0.768409	0.775072	0.778958	0.780065
JPN	Japan	0.784889	0.790067	0.792467	0.794867	0.800044
KAZ	Kazakhstan	0.7553	0.759471	0.758087	0.75948	0.755318
MEX	Mexico	0.588328	0.60137	0.604487	0.612261	0.621042
RUS	Russian Federation	0.763944	0.764924	0.768682	0.77244	0.778976
SAU	Saudi Arabia	0.61694	0.623622	0.630304	0.641153	0.660335
SWE	Sweden	0.829667	0.826689	0.823711	0.823511	0.823311
USA	US	0.866785	0.869515	0.876344	0.880394	0.883683

ALB	Albania	0.601675	0.608519	0.608519	0.608519	0.6099
AUS	Australia	0.918815	0.921831	0.926536	0.926536	0.9296
BOL	Bolivia	0.6735	0.6735	0.6735	0.6735	0.6743
BRA	Brazil	0.662463	0.661306	0.661306	0.661306	0.6609
BWA	Botswana	0.619	0.619	0.619	0.619	0.6189
CAN	Canada	0.8503	0.8503	0.8503	0.8503	0.8503
CHL	Chile	0.74012	0.745675	0.745675	0.745675	0.7466
CHN	China	0.598556	0.609667	0.609667	0.609667	0.6118
COD	Congo, Dem. Rep.	0.355111	0.360667	0.371778	0.371778	0.3772
DEU	Germany	0.878845	0.884372	0.884372	0.884372	0.8851
EGY	Egypt, Arab Rep.	0.573444	0.573444	0.573444	0.573444	0.5733
GBR	UK	0.877731	0.86026	0.86026	0.86026	0.8562
HTI	Haiti	0.374278	0.374278	0.374278	0.374278	0.3742
IDN	Indonesia	0.594164	0.603136	0.603136	0.603136	0.6045
IND	India	0.456	0.472667	0.472667	0.472667	0.4762
IRN	Iran, Islamic Rep.	0.625122	0.639011	0.683456	0.683456	0.7
ITA	Italy	0.78395	0.789506	0.789506	0.789506	0.7908
JPN	Japan	0.802444	0.808	0.808	0.808	0.8092
KAZ	Kazakhstan	0.753933	0.759489	0.762267	0.762267	0.7642
MEX	Mexico	0.630643	0.635627	0.637833	0.637833	0.6394
RUS	Russian Federation	0.779956	0.779956	0.779956	0.779956	0.7798
SAU	Saudi Arabia	0.68785	0.707032	0.720659	0.723174	0.7335
SWE	Sweden	0.832912	0.830134	0.830134	0.830134	0.83
USA	US	0.886981	0.889759	0.889759	0.889759	0.89

Forest Land Portion

ALB	Albania	28.78832	28.71715	28.64599	28.57482	28.50365
AUS	Australia	16.7321	16.736	16.73991	16.74381	16.74772
BOL	Bolivia	57.9664	57.71679	57.46718	57.21758	56.96797
BRA	Brazil	65.40989	65.10562	64.80136	64.49709	64.19282
BWA	Botswana	24.20553	23.99679	23.78805	23.57931	23.37056
CAN	Canada	38.29907	38.29389	38.28871	38.28353	38.27835
CHL	Chile	20.5277	20.60449	20.68129	20.75808	20.83488
CHN	China	16.73801	16.94955	17.16109	17.37263	17.58417
COD	Congo, Dem. Rep.	70.73642	70.59906	70.4617	70.32434	70.18698
DEU	Germany	32.36617	32.38163	32.3971	32.4135	32.42989
EGY	Egypt, Arab Rep.	0.044201	0.045708	0.047215	0.048722	0.050229
GBR	UK	11.48266	11.55541	11.62816	11.70091	11.77365
HTI	Haiti	4.208999	4.183599	4.1582	4.132801	4.107402
IDN	Indonesia	65.43771	64.38139	63.32507	62.26875	61.21243
IND	India	21.50518	21.55399	21.60279	21.65159	21.7004
IRN	Iran, Islamic Rep.	5.572374	5.587699	5.603023	5.618348	5.633672
ITA	Italy	25.80667	26.07154	26.3364	26.60127	26.86614
JPN	Japan	68.43116	68.41086	68.39057	68.37027	68.34997
KAZ	Kazakhstan	1.267548	1.267548	1.263326	1.261214	1.259103
MEX	Mexico	35.8857	35.78775	35.68981	35.59186	35.49392
RUS	Russian Federation	49.35647	49.35647	49.36035	49.37365	49.39021
SAU	Saudi Arabia	0.454484	0.454484	0.454484	0.454484	0.454484
SWE	Sweden	68.38963	68.414	68.43837	68.46274	68.48711
USA	US	33.02231	33.03417	33.04602	33.05788	33.06974

ALB	Albania	28.43248	28.36131	28.29015	28.21898	28.14781
AUS	Australia	16.75162	16.75553	16.75943	16.76334	16.76724
BOL	Bolivia	56.71836	56.46875	56.21915	55.96954	55.71993
BRA	Brazil	63.88856	63.58429	63.28002	62.97576	62.67149
BWA	Botswana	23.16182	22.95308	22.74434	22.5356	22.32686
CAN	Canada	38.27318	38.268	38.26282	38.25764	38.25246
CHL	Chile	20.91168	20.98847	21.06527	21.14206	21.21886
CHN	China	17.79573	18.00729	18.21883	18.43037	18.64191
COD	Congo, Dem. Rep.	70.04962	69.91226	69.77491	69.63755	69.50019
DEU	Germany	32.44629	32.46269	32.48188	32.50014	32.51934
EGY	Egypt, Arab Rep.	0.051735	0.053242	0.054749	0.056256	0.057763
GBR	UK	11.8464	11.91915	11.9919	12.06465	12.1374
HTI	Haiti	4.082003	4.056604	4.031205	4.005806	3.980406
IDN	Indonesia	60.15611	59.09979	58.04347	56.98714	55.93082
IND	India	21.7492	21.798	21.8468	21.89561	21.94441
IRN	Iran, Islamic Rep.	5.648997	5.664321	5.679646	5.69497	5.710295
ITA	Italy	27.13101	27.39587	27.66074	27.92561	28.19047
JPN	Japan	68.32968	68.32812	68.30782	68.28752	68.26722
KAZ	Kazakhstan	1.256992	1.25488	1.252769	1.250657	1.248546
MEX	Mexico	35.39597	35.29803	35.20008	35.10214	35.00419
RUS	Russian Federation	49.40105	49.40426	49.40413	49.39808	49.37829
SAU	Saudi Arabia	0.454484	0.454484	0.454484	0.454484	0.454484
SWE	Sweden	68.51148	68.53585	68.56022	68.58459	68.60896
USA	US	33.08159	33.09345	33.10531	33.11717	33.12902

ALB	Albania	28.07664	28.17226	28.26788	28.3635	28.45912
AUS	Australia	16.77115	16.73991	16.70867	16.67743	16.64619
BOL	Bolivia	55.47032	55.21979	54.96926	54.71873	54.4682
BRA	Brazil	62.36723	62.0193	61.67138	61.32345	60.97553
BWA	Botswana	22.11812	21.9092	21.70028	21.49136	21.28244
CAN	Canada	38.24728	38.24231	38.23734	38.23237	38.2274
CHL	Chile	21.29565	21.3516	21.40755	21.4635	21.51945
CHN	China	18.85347	19.19526	19.53704	19.87881	20.22059
COD	Congo, Dem. Rep.	69.36283	69.22547	69.08811	68.95075	68.81339
DEU	Germany	32.53761	32.55947	32.5804	32.60228	32.62322
EGY	Egypt, Arab Rep.	0.05927	0.060877	0.062484	0.064092	0.065699
GBR	UK	12.21014	12.26553	12.32092	12.37631	12.4317
HTI	Haiti	3.955007	3.92598	3.896952	3.867925	3.838897
IDN	Indonesia	54.8745	54.70316	54.53181	54.36047	54.18913
IND	India	21.99321	22.14921	22.3052	22.46119	22.61719
IRN	Iran, Islamic Rep.	5.725619	5.893391	6.061169	6.228941	6.396719
ITA	Italy	28.45534	28.72055	28.98575	29.24798	29.51316
JPN	Japan	68.24691	68.27929	68.31166	68.34403	68.37641
KAZ	Kazakhstan	1.246435	1.24436	1.242286	1.240212	1.238138
MEX	Mexico	34.90625	34.82672	34.74719	34.66766	34.58813
RUS	Russian Federation	49.40185	49.39872	49.39137	49.38541	49.37881
SAU	Saudi Arabia	0.454484	0.454484	0.454484	0.454484	0.454484
SWE	Sweden	68.63333	68.66014	68.68694	68.71375	68.74056
USA	US	33.13017	33.15683	33.18348	33.21013	33.23679

ALB	Albania	28.55474	28.51022	28.46569	28.42117	28.37664
AUS	Australia	16.61495	16.49962	16.38429	16.26896	16.15363
BOL	Bolivia	54.21767	53.7515	53.28533	52.81916	52.353
BRA	Brazil	60.6276	60.42957	60.23153	60.0335	59.83547
BWA	Botswana	21.07353	20.86461	20.65569	20.44677	20.23786
CAN	Canada	38.22242	38.2164	38.21037	38.20435	38.19832
CHL	Chile	21.5754	21.62624	21.67708	21.72791	21.77875
CHN	China	20.56237	20.72356	20.88475	21.04594	21.20713
COD	Congo, Dem. Rep.	68.67603	68.53867	68.40131	68.26396	68.1266
DEU	Germany	32.64136	32.65944	32.67846	32.69656	32.71277
EGY	Egypt, Arab Rep.	0.067306	0.067909	0.068512	0.069114	0.069717
GBR	UK	12.48708	12.5185	12.54991	12.58133	12.61274
HTI	Haiti	3.809869	3.780842	3.751814	3.722787	3.693759
IDN	Indonesia	54.01779	53.63966	53.26154	52.88341	52.50529
IND	India	22.77318	22.91317	23.05315	23.19314	23.33312
IRN	Iran, Islamic Rep.	6.564491	6.564491	6.564491	6.564491	6.564491
ITA	Italy	29.77834	29.96124	30.14415	30.32706	30.50996
JPN	Japan	68.40878	68.42579	68.4428	68.45981	68.47682
KAZ	Kazakhstan	1.236063	1.233989	1.231915	1.22984	1.227766
MEX	Mexico	34.5086	34.44842	34.38823	34.32804	34.26786
RUS	Russian Federation	49.37249	49.46098	49.53847	49.6186	49.69609
SAU	Saudi Arabia	0.454484	0.454484	0.454484	0.454484	0.454484
SWE	Sweden	68.76736	68.69669	68.62602	68.55534	68.48467
USA	US	33.26344	33.34995	33.43646	33.57611	33.66276

ALB	Albania	28.33212	28.29708	28.26204	28.22701	28.19197
AUS	Australia	16.0383	16.07839	16.11848	16.15857	16.19866
BOL	Bolivia	51.88683	51.62005	51.35327	51.08649	50.81972
BRA	Brazil	59.63743	59.5197	59.40197	59.28424	59.16651
BWA	Botswana	20.02894	19.84861	19.66827	19.48794	19.30761
CAN	Canada	38.19229	38.18717	38.18204	38.17692	38.1718
CHL	Chile	21.82959	22.23415	22.6387	23.04326	23.44781
CHN	China	21.36832	21.53259	21.69686	21.86113	22.0254
COD	Congo, Dem. Rep.	67.98924	67.85188	67.71452	67.57716	67.4398
DEU	Germany	32.73087	32.73755	32.74517	32.71899	32.72284
EGY	Egypt, Arab Rep.	0.07032	0.070923	0.071525	0.072128	0.072731
GBR	UK	12.64415	12.71442	12.78469	12.85496	12.92523
HTI	Haiti	3.664731	3.635704	3.606676	3.577649	3.548621
IDN	Indonesia	52.12716	51.74937	51.37157	50.99378	50.61599
IND	India	23.4731	23.53311	23.59311	23.65311	23.71312
IRN	Iran, Islamic Rep.	6.564491	6.564491	6.564491	6.564491	6.564491
ITA	Italy	30.69287	30.87577	31.05868	31.24159	31.42449
JPN	Japan	68.48443	68.4791	68.47378	68.46939	68.465
KAZ	Kazakhstan	1.225692	1.225692	1.225692	1.225692	1.225692
MEX	Mexico	34.20767	34.16055	34.11343	34.06631	34.01919
RUS	Russian Federation	49.77359	49.77108	49.76858	49.76607	49.76357
SAU	Saudi Arabia	0.454484	0.454484	0.454484	0.454484	0.454484
SWE	Sweden	68.414	68.414	68.91786	68.91786	68.92293
USA	US	33.74941	33.77947	33.80953	33.8396	33.86966

Labor Force

ALB	Albania	1420576	1435963	1426958	1405239	1383894
AUS	Australia	8498108	8542518	8616564	8651104	8820272
BOL	Bolivia	2752904	2830086	2900362	2982624	3070268
BRA	Brazil	5993557 7	6172097 5	6350796 5	6532766 2	6721888 7
BWA	Botswana	478103	495786	513625	531720	550240
CAN	Canada	1471653 7	1480853 2	1479044 0	1487676 3	1498727 1
CHL	Chile	4998773	5081350	5288599	5512659	5608611
CHN	China	6.4E+08	6.48E+08	6.58E+08	6.69E+08	6.79E+08
COD	Congo, Dem. Rep.	1362206 9	1412589 2	1468735 3	1527789 7	1584439 2
DEU	Germany	3888016 1	4003706 9	3988356 5	3966120 5	3991847 9
EGY	Egypt, Arab Rep.	1578595 4	1618863 1	1657714 2	1702478 4	1784325 8
GBR	UK	2903981 2	2891081 2	2874462 0	2850790 6	2844947 5
HTI	Haiti	2721319	2767944	2811798	2855216	2901435
IDN	Indonesia	7298691 5	7599996 0	7902936 3	8119975 4	8341696 8
IND	India	3.28E+08	3.35E+08	3.43E+08	3.52E+08	3.61E+08
IRN	Iran, Islamic Rep.	1423493 9	1439044 2	1460028 5	1479430 6	1500985 3
ITA	Italy	2391861 2	2409267 7	2333456 3	2320114 7	2300787 5
JPN	Japan	6387304 6	6502574 4	6584481 1	6616998 1	6649257 7
KAZ	Kazakhstan	7968816	8046032	8071872	8076996	8035994
MEX	Mexico	3040994 2	3146110 0	3276528 8	3413914 1	3503638 3
RUS	Russian Federation	7637818 4	7634445 5	7656510 9	7477256 8	7287331 1
SAU	Saudi Arabia	5045471	5202464	5353005	5455217	5546689
SWE	Sweden	4743244	4726218	4634914	4533345	4510536
USA	US	1.28E+08	1.29E+08	1.31E+08	1.32E+08	1.35E+08

ALB	Albania	1357661	1353840	1368608	1363899	1354617
AUS	Australia	9025032	9153651	9220558	9322131	9416410
BOL	Bolivia	3162065	3253232	3351442	3440164	3529454
BRA	Brazil	6919564 8	7117573 6	7322297 2	7532203 6	7745011 4
BWA	Botswana	569104	585295	601869	619045	628199
CAN	Canada	1505244 9	1519446 2	1544517 8	1569892 5	1598611 4
CHL	Chile	5605414	5693568	5829984	5977589	6088746
CHN	China	6.88E+08	7E+08	7.1E+08	7.17E+08	7.25E+08
COD	Congo, Dem. Rep.	1637139 5	1681097 9	1722139 0	1761768 1	1804206 3
DEU	Germany	3979248 0	3981645 8	4004364 7	4007506 6	4029186 5
EGY	Egypt, Arab Rep.	1787281 3	1819549 2	1848862 2	1877373 9	1995707 5
GBR	UK	2841889 5	2851755 9	2869267 2	2876131 0	2904996 4
HTI	Haiti	2951661	3003103	3057669	3114925	3174059
IDN	Indonesia	8570458 1	8794040 8	9026578 1	9361625 0	9688089 4
IND	India	3.68E+08	3.75E+08	3.83E+08	3.9E+08	3.98E+08
IRN	Iran, Islamic Rep.	1527074 4	1566713 7	1639387 6	1719107 3	1805218 7
ITA	Italy	2287139 9	2297342 2	2301176 1	2316046 0	2330255 3
JPN	Japan	6683982 3	6736612 7	6797596 5	6802851 1	6782443 1
KAZ	Kazakhstan	7956785	7879305	7789395	7699484	7660638
MEX	Mexico	3588913 1	3680695 4	3854872 9	3929022 8	3962584 3
RUS	Russian Federation	7261690 5	7189383 1	7057911 5	6987812 0	7391107 6
SAU	Saudi Arabia	5631863	5714593	5810136	5923926	6070061
SWE	Sweden	4563205	4556823	4529692	4518047	4544066
USA	US	1.37E+08	1.38E+08	1.41E+08	1.43E+08	1.45E+08

ALB	Albania	1350707	1338336	1338098	1319860
AUS	Australia	9603052	9790007	9946984	10126897
BOL	Bolivia	3619866	3728972	3841501	3956819
BRA	Brazil	79593872	81661056	84421534	86249413
BWA	Botswana	635696	658678	682040	705872
CAN	Canada	16235329	16492182	16944642	17361800
CHL	Chile	6060038	6168468	6240464	6388229
CHN	China	7.35E+08	7.41E+08	7.47E+08	7.54E+08
COD	Congo, Dem. Rep.	18517555	19019342	19568567	20162060
DEU	Germany	40252431	40335921	40453886	40657950
EGY	Egypt, Arab Rep.	20449251	20823165	21206700	22074045
GBR	UK	29295735	29259481	29588608	29868880
HTI	Haiti	3234917	3320433	3410825	3505264
IDN	Indonesia	99019108	1.01E+08	1.02E+08	1.04E+08
IND	India	4.06E+08	4.17E+08	4.29E+08	4.41E+08
IRN	Iran, Islamic Rep.	18974125	20003917	21099625	22261186
ITA	Italy	23334999	23456106	23716402	24027000
JPN	Japan	67670439	67597135	67157523	67069236
KAZ	Kazakhstan	7655064	7673612	7710568	7758778
MEX	Mexico	40336551	40703546	41578414	41975250
RUS	Russian Federation	74243534	72919734	73863871	73728880
SAU	Saudi Arabia	6403495	6615763	6890859	7235695
SWE	Sweden	4513517	4560918	4578419	4604434
USA	US	1.47E+08	1.48E+08	1.49E+08	1.49E+08

ALB	Albania	1282209	1266923	1250642	1234727	1226709
		1055674	1080148	1096957	1125922	1149494
AUS	Australia	4	6	2	8	2
BOL	Bolivia	4192805	4312858	4340154	4461408	4562902
		9091274	9290793	9395209	9568746	9740003
BRA	Brazil	9	8	1	7	7
BWA	Botswana	755535	782724	799327	816291	833677
		1773486	1791192	1827469	1857350	1870901
CAN	Canada	8	5	6	1	3
CHL	Chile	6738501	6937954	7238057	7466191	7534880
CHN	China	7.66E+08	7.7E+08	7.74E+08	7.77E+08	7.79E+08
	Congo, Dem.	2145486	2211979	2282439	2356708	2435046
COD	Rep.	1	7	2	2	0
		4126077	4160939	4188872	4189571	4195672
DEU	Germany	8	2	0	1	5
	Egypt, Arab	2382541	2461698	2577893	2656051	2733368
EGY	Rep.	1	3	7	4	7
		3058967	3103753	3124072	3164771	3182534
GBR	UK	2	2	7	5	1
HTI	Haiti	3702751	3805011	3908843	4012105	4119991
IDN	Indonesia	1.07E+08	1.09E+08	1.11E+08	1.13E+08	1.15E+08
IND	India	4.66E+08	4.67E+08	4.68E+08	4.69E+08	4.7E+08
	Iran, Islamic	2469284	2471806	2470634	2395856	2463937
IRN	Rep.	8	7	8	0	3
		2440278	2444015	2441709	2473264	2451672
ITA	Italy	5	7	8	8	9
		6673948	6680046	6714213	6709193	6691488
JPN	Japan	4	9	0	1	1
KAZ	Kazakhstan	7947785	8080685	8226670	8382502	8572985
		4483310	4640619	4757621	4848808	4956149
MEX	Mexico	7	9	0	3	6
	Russian	7494525	7519568	7618046	7669711	7676206
RUS	Federation	0	6	2	7	8
SAU	Saudi Arabia	7978202	8313245	8647351	8966080	9289917
SWE	Sweden	4752353	4750094	4824750	4891996	4908101
USA	US	1.52E+08	1.54E+08	1.55E+08	1.57E+08	1.57E+08

ALB	Albania	1225742	1271831	1325040	1249109	1275847
		1169251	1185992	1201867	1219065	1233267
AUS	Australia	2	0	3	7	1
BOL	Bolivia	4662563	4757848	4669707	4803653	5052933
		9730043	9710584	9820202	9954150	
BRA	Brazil	1	8	2	5	1.01E+08
BWA	Botswana	813664	891080	962236	1028356	1052484
		1891340	1905911	1926409	1950645	1960621
CAN	Canada	6	9	0	7	3
CHL	Chile	8005309	8276628	8379161	8503234	8640611
CHN	China	7.8E+08	7.83E+08	7.84E+08	7.86E+08	7.87E+08
	Congo, Dem.	2516127	2597865	2683453	2772478	2864957
COD	Rep.	1	8	2	3	2
		4201639	4169967	4180759	4220391	4245733
DEU	Germany	0	1	2	0	0
	Egypt, Arab	2816315	2850134	2913391	2984435	2997298
EGY	Rep.	3	4	0	2	6
		3201060	3219208	3254297	3285227	3314365
GBR	UK	5	0	6	9	6
HTI	Haiti	4223851	4335674	4449629	4567010	4682457
IDN	Indonesia	1.17E+08	1.19E+08	1.2E+08	1.22E+08	1.23E+08
IND	India	4.71E+08	4.74E+08	4.77E+08	4.86E+08	4.95E+08
	Iran, Islamic	2463312	2472551	2481872	2490131	2496081
IRN	Rep.	8	7	5	9	3
		2445123	2443881	2496217	2506492	2541687
ITA	Italy	9	0	0	0	0
		6666500	6597089	6564996	6599327	6618258
JPN	Japan	9	0	7	9	5
KAZ	Kazakhstan	8719602	8806196	8887013	8961708	9050690
		5054314	5169152	5338088	5429338	5483633
MEX	Mexico	3	2	7	5	7
	Russian	7659533	7696148	7679964	7652069	7634918
RUS	Federation	5	8	4	4	5
			1048764	1120246	1184566	1239135
SAU	Saudi Arabia	9834235	4	4	3	3
SWE	Sweden	4941183	4998123	5034011	5097752	5140794
USA	US	1.57E+08	1.57E+08	1.58E+08	1.59E+08	1.6E+08

Agriculture Land Portion

ALB	Albania	40.91241	41.13139	41.13139	41.09489	41.09489
AUS	Australia	60.46119	60.26502	60.68209	59.91513	61.06244
BOL	Bolivia	32.7287	33.04348	33.07579	33.42841	33.5558
BRA	Brazil	28.90691	29.30568	29.51721	29.84671	30.08062
BWA	Botswana	45.91428	45.70254	45.61431	45.79076	45.87017
CAN	Canada	7.452348	7.450698	7.457406	7.464005	7.470603
CHL	Chile	21.38307	21.23513	20.92176	20.81551	20.7792
CHN	China	53.86456	54.47011	54.78273	55.19911	55.69014
COD	Congo, Dem. Rep.	11.451	11.45983	11.46865	11.46865	11.46865
DEU	Germany	51.64838	49.082	48.55212	49.15788	49.5775
EGY	Egypt, Arab Rep.	2.660103	2.655081	3.009975	3.260837	3.260837
GBR	UK	75.24077	74.99277	74.69103	72.47551	71.95883
HTI	Haiti	57.9463	57.91001	57.14804	57.14804	57.87373
IDN	Indonesia	24.88615	22.92155	22.82606	23.19314	23.1683
IND	India	61.01628	61.07447	60.97996	61.00586	60.97525
IRN	Iran, Islamic Rep.	37.75879	38.67789	39.16292	39.38702	39.39009
ITA	Italy	57.25749	54.58502	54.32661	54.09541	53.38819
JPN	Japan	15.61437	15.50741	15.40044	15.28799	15.17553
KAZ	Kazakhstan			82.03245	82.13764	82.10209
MEX	Mexico	54.09141	54.60737	54.6192	54.62075	54.62589
RUS	Russian Federation			13.52237	13.35241	13.29019
SAU	Saudi Arabia	57.44131	57.53016	57.56458	80.84189	80.84189
SWE	Sweden	8.317493	8.183458	8.14934	8.178584	8.178584
USA	US	46.61534	46.61534	46.44949	46.17861	45.98109

ALB	Albania	41.13139	41.27737	41.42336	41.56934	41.78832
AUS	Australia	60.31371	60.55752	60.16427	60.37072	59.06161
BOL	Bolivia	33.78565	33.8632	34.03859	34.13828	34.21859
BRA	Brazil	30.92458	30.99003	31.05547	31.1208	31.19821
BWA	Botswana	45.78194	45.78194	45.70254	45.57902	45.59667
CAN	Canada	7.477201	7.483909	7.471702	7.459606	7.447399
CHL	Chile	20.61781	20.486	20.47256	20.46852	20.25468
CHN	China	55.6902	55.69442	55.74352	55.7808	55.72222
COD	Congo, Dem. Rep.	11.38043	11.38043	11.33632	11.33632	11.29221
DEU	Germany	49.67918	49.66341	49.64045	49.77652	49.14895
EGY	Egypt, Arab Rep.	3.298006	3.190979	3.259752	3.274519	3.49892
GBR	UK	71.83483	72.31017	72.68631	72.40937	71.17348
HTI	Haiti	57.69231	57.69231	61.32075	61.32075	61.32075
IDN	Indonesia	23.72417	23.71865	24.02723	24.22043	25.32444
IND	India	60.85888	60.73914	60.87098	60.835	60.88444
IRN	Iran, Islamic Rep.	39.4214	39.55586	39.19055	39.77689	39.10153
ITA	Italy	52.13356	52.18796	52.17436	52.64697	53.718
JPN	Japan	14.92869	14.81207	14.68861	14.5679	14.46091
KAZ	Kazakhstan	80.44838	79.81391	79.89473	79.76064	79.66637
MEX	Mexico	54.62846	54.68762	54.68762	54.69534	54.69585
RUS	Russian Federation	13.21254	13.19523	13.30934	13.26433	13.22817
SAU	Saudi Arabia	80.84189	80.84189	80.84189	80.84189	80.84189
SWE	Sweden	7.96169	8.0348	7.942194	7.873958	7.783789
USA	US	45.87191	45.45341	45.29827	45.26584	45.1893

ALB	Albania	41.75182	41.56934	41.60584	40.91241	40.94891
AUS	Australia	59.29214	59.31817	58.1857	57.20943	57.28883
BOL	Bolivia	34.2869	34.2989	34.44198	33.82904	33.80135
BRA	Brazil	31.27562	31.52197	31.80947	32.12066	32.55892
BWA	Botswana	45.79076	45.52609	45.60549	45.51727	45.57197
CAN	Canada	7.435303	7.423096	7.424746	7.426725	7.428485
CHL	Chile	20.32192	20.37572	20.93387	20.74558	21.43149
CHN	China	55.60191	55.37954	55.23234	54.9767	55.00866
COD	Congo, Dem. Rep.	11.29221	11.27015	11.27015	11.27015	11.27015
DEU	Germany	48.91245	48.82201	48.63556	48.74	48.78
EGY	Egypt, Arab Rep.	3.306042	3.353257	3.43965	3.424582	3.493897
GBR	UK	70.11946	70.07399	70.16906	70.08639	70.47906
HTI	Haiti	61.32075	60.59507	60.59507	60.59507	60.59507
IDN	Indonesia	26.04205	26.33075	26.59627	28.15569	29.45843
IND	India	60.86897	60.70483	60.72938	60.62478	60.66716
IRN	Iran, Islamic Rep.	38.60851	39.18502	39.32071	39.4564	39.59208
ITA	Italy	53.16718	52.70817	51.92955	50.67995	50.59835
JPN	Japan	14.42524	13.14952	13.06722	12.99314	12.93278
KAZ	Kazakhstan	79.78416	79.44794	79.07134	78.89817	78.7756
MEX	Mexico	54.69791	54.81108	54.81108	54.81108	54.82137
RUS	Russian Federation	13.25667	13.23902	13.2258	13.20293	13.1846
SAU	Saudi Arabia	80.84189	80.84468	80.84561	80.84794	80.80653
SWE	Sweden	7.683872	7.686309	7.725301	7.708242	7.759419
USA	US	45.23058	45.29007	45.08487	45.17885	44.91646

ALB	Albania	39.30657	40.87591	40.83942	43.10219	43.84307
AUS	Australia	57.94476	56.6139	55.38042	54.31811	53.24304
BOL	Bolivia	34.11982	34.25828	34.51491	34.6026	34.77615
BRA	Brazil	32.59488	32.63693	32.49981	32.72259	32.72738
BWA	Botswana	45.59755	45.52962	45.49609	45.66725	45.73254
CAN	Canada	7.430464	7.252865	7.17901	7.105155	7.03141
CHL	Chile	21.36425	21.24993	21.15847	21.22841	21.22572
CHN	China	55.11518	54.76368	54.81002	54.80799	54.80842
COD	Congo, Dem. Rep.	11.27015	11.28603	11.31426	11.33632	11.35617
DEU	Germany	48.83301	48.59486	48.6133	48.5357	48.43808
EGY	Egypt, Arab Rep.	3.539103	3.549149	3.554171	3.55819	3.705862
GBR	UK	70.08639	73.73207	72.94259	73.09552	71.61162
HTI	Haiti	60.59507	60.59507	66.03774	64.22351	65.17888
IDN	Indonesia	28.61937	28.42838	29.25639	29.8084	30.69161
IND	India	60.58341	60.50942	60.41323	60.4593	60.56391
IRN	Iran, Islamic Rep.	29.24372	29.37941	29.51509	28.66291	28.66365
ITA	Italy	50.09859	48.28653	48.14714	49.15074	47.53655
JPN	Japan	12.87243	12.81481	12.7572	12.69684	12.64472
KAZ	Kazakhstan	78.63318	78.4815	78.31818	78.10179	78.07656
MEX	Mexico	54.82137	54.82137	54.88824	54.89082	54.89082
RUS	Russian Federation	13.16616	13.15737	13.15584	13.15844	13.15575
SAU	Saudi Arabia	80.81026	80.79025	80.79072	80.7428	80.67907
SWE	Sweden	7.837403	7.708242	7.64488	7.537652	7.503534
USA	US	44.94516	44.66474	45.06235	45.18352	44.81709

ALB	Albania	43.84307	43.83212	43.84307	43.33212	42.8573
AUS	Australia	51.8829	53.32682	52.78029	51.62716	52.88377
BOL	Bolivia	34.63122	34.66907	34.70507	34.73461	34.80522
BRA	Brazil	32.71816	32.94668	32.97468	33.35767	33.81003
BWA	Botswana	45.63196	45.74665	45.67784	45.66372	45.87899
CAN	Canada	6.957555	6.883701	6.885328	6.886956	6.888583
CHL	Chile	21.17326	21.23513	21.1894	21.22437	21.19774
CHN	China	54.8081	54.80842	54.80842	54.80842	54.80842
COD	Congo, Dem. Rep.	11.36499	11.48629	11.55687	11.55687	11.55687
DEU	Germany	47.91003	47.96592	47.81087	47.85886	47.93637
EGY	Egypt, Arab Rep.	3.687779	3.636546	3.712894	3.778191	3.762118
GBR	UK	71.19415	70.94614	71.02054	71.30244	71.22721
HTI	Haiti	67.85196	66.40058	64.22351	66.76343	66.76343
IDN	Indonesia	30.69161	31.18842	31.18842	31.46442	31.46442
IND	India	60.39742	60.43004	60.42063	60.43946	60.4472
IRN	Iran, Islamic Rep.	28.57352	28.48339	28.39326	28.30374	28.21361
ITA	Italy	48.71082	47.09526	46.67505	46.33848	44.7474
JPN	Japan	12.59909	12.51114	12.47806	12.44514	12.39576
KAZ	Kazakhstan	80.43923	80.37504	80.38378	80.37712	80.37634
MEX	Mexico	54.89082	54.89082	54.89082	54.89082	54.89082
RUS	Russian Federation	13.06428	13.1069	13.08858	13.24063	13.29447
SAU	Saudi Arabia	80.66558	80.65721	80.63721	80.61395	80.77779
SWE	Sweden	7.518156	7.471853	7.484166	7.482447	7.44568
USA	US	44.64933	44.23863	44.67998	44.36679	44.58804

Governance

ALB	Albania	-0.29
AUS	Australia	1.71
BOL	Bolivia	-0.56
BRA	Brazil	-0.13
BWA	Botswana	0.51
CAN	Canada	1.80
CHL	Chile	1.19
CHN	China	0.12
COD	Congo, Dem. Rep.	-1.61
DEU	Germany	1.60
EGY	Egypt, Arab Rep.	-0.54
GBR	UK	1.64
HTI	Haiti	-1.62
IDN	Indonesia	-0.25
IND	India	-0.05
IRN	Iran, Islamic Rep.	-0.49
ITA	Italy	0.42
JPN	Japan	1.54
KAZ	Kazakhstan	-0.39
MEX	Mexico	0.19
RUS	Russian Federation	-0.37
SAU	Saudi Arabia	-0.06
SWE	Sweden	1.93
USA	US	1.55

GDP

ALB	Albania	723.4096	639.4639	348.7113	218.4922	380.5274
AUS	Australia	17838.36	18249.29	18865.34	18616.32	17681.15
BOL	Bolivia	701.4646	709.9489	764.1413	791.3804	788.399
BRA	Brazil	2901.285	3093.037	3966.795	2591.797	2786.171
BWA	Botswana	2301.99	2750.95	2783.022	2848.207	2783.238
CAN	Canada	20638.29	21371.29	21664.6	20771.25	20017.43
CHL	Chile	2294.346	2500.646	2811.482	3362.169	3551.03
CHN	China	310.8819	317.8847	333.1421	366.4607	377.3898
COD	Congo, Dem. Rep.	269.5874	270.1106	253.0422	219.7342	275.7353
DEU	Germany	17697.16	22219.57	23269.38	26333.54	25488.52
EGY	Egypt, Arab Rep.	707.9248	751.2411	629.2605	697.1869	760.1497
GBR	UK	16239.28	19095.47	19900.73	20487.17	18389.02
HTI	Haiti	518.1	478.4	479.5493	305.5554	249.4127
IDN	Indonesia	564.2322	622.866	672.5881	725.9761	881.3617
IND	India	342.7239	363.9641	300.0966	313.8601	298.2177
IRN	Iran, Islamic Rep.	2199.757	2219.842	1886	1389	1080.561
ITA	Italy	16332.61	20757.09	21884.1	23166.8	18676.95
JPN	Japan	24792.19	25417.28	28874.36	31376.14	35865.66
KAZ	Kazakhstan	1729	1647.463	1512.485	1515.104	1433.462
MEX	Mexico	2664.07	3077.745	3611.444	4093.394	5562.476
RUS	Russian Federation	3428.762	3485.112	3485.056	3095.66	2929.462
SAU	Saudi Arabia	6051.333	7204.729	7838.784	7888.21	7445.115
SWE	Sweden	25300.4	30162.32	31374.12	32338.5	24080.9
USA	US	22922.44	23954.48	24405.16	25492.95	26464.85

ALB	Albania	619.0652	760.5594	1046.359	749.5846	865.3022
AUS	Australia	18102.32	20384.67	21944.16	23551.22	21365.98
BOL	Bolivia	806.2215	887.4685	958.4738	1006.965	1058.719
BRA	Brazil	3494.641	4840.788	5156.805	5271.411	5075.631
BWA	Botswana	2779.114	3014.868	3022.177	3065.527	2869.183
CAN	Canada	19859.2	20577.49	21183.22	21770.13	20887.84
CHL	Chile	4045.621	5137.375	5382.847	5781.103	5479.498
CHN	China	473.4923	609.6567	709.4138	781.7442	828.5805
COD	Congo, Dem. Rep.	144.5207	135.6735	134.9399	138.9646	138.6155
DEU	Germany	27087.56	31729.7	30564.25	27045.72	27340.67
EGY	Egypt, Arab Rep.	830.4243	944.2019	1041.523	1185.718	1258.998
GBR	UK	19709.24	23013.46	24219.62	26621.48	28014.89
HTI	Haiti	282.4227	359.7677	365.0114	411.6086	450.9186
IDN	Indonesia	971.1076	1092.697	1210.948	1132.562	493.9996
IND	India	342.7175	370.1014	396.0146	411.3877	409.1944
IRN	Iran, Islamic Rep.	1202.868	1591.716	1955.146	1816.587	1725.756
ITA	Italy	19273.84	20596.39	23020.1	21779.62	22252.36
JPN	Japan	39268.57	43440.37	38436.93	35021.72	31902.77
KAZ	Kazakhstan	1320.322	1288.239	1350.334	1445.569	1468.702
MEX	Mexico	5710.055	3655.598	4153.148	4939.824	5079.972
RUS	Russian Federation	2663.395	2665.74	2643.898	2737.557	1834.847
SAU	Saudi Arabia	7382.132	7650.739	8293.221	8508.519	7382.161
SWE	Sweden	25747.24	29914.33	32587.26	29897.79	30143.63
USA	US	27776.64	28782.18	30068.23	31572.69	32949.2

ALB	Albania	1098.425	1175.789	1326.97	1453.643	1890.682
AUS	Australia	20561.48	21690.92	19517.84	20081.82	23465.39
BOL	Bolivia	1012.51	1007.003	958.2367	913.5756	917.3643
BRA	Brazil	3469.504	3739.119	3146.95	2819.65	3059.588
BWA	Botswana	3226.296	3349.069	3128.098	3055.618	4163.066
CAN	Canada	22167.23	24124.17	23691.59	24167.8	28172.15
CHL	Chile	4986.007	5101.368	4595.666	4463.546	4787.7
CHN	China	873.2871	959.3725	1053.108	1148.508	1288.643
COD	Congo, Dem. Rep.	102.6448	405.4697	153.6996	175.1361	173.9164
DEU	Germany	26795.99	23718.75	23687.32	25205.16	30359.95
EGY	Egypt, Arab Rep.	1321.8	1428.183	1370.717	1210.229	1120.875
GBR	UK	28383.67	27982.36	27427.59	29785.99	34173.98
HTI	Haiti	494.2324	462.4807	413.7383	393.0163	329.7821
IDN	Indonesia	714.5453	830.5846	796.3959	957.7806	1133.411
IND	India	437.5861	438.8646	447.0139	466.2008	541.1352
IRN	Iran, Islamic Rep.	1749.828	1657.17	1890.992	1892.036	2231.343
ITA	Italy	21936.82	20051.24	20400.81	22196.51	27387.23
JPN	Japan	36026.56	38532.04	33846.47	32289.35	34808.39
KAZ	Kazakhstan	1130.114	1229.001	1490.927	1658.031	2068.124
MEX	Mexico	5777.232	6720.902	7031.379	7106.082	6751.999
RUS	Russian Federation	1330.751	1771.587	2100.362	2375.059	2975.133
SAU	Saudi Arabia	7968.549	9126.954	8643.494	8655.312	9567.458
SWE	Sweden	30577.08	29283.01	26969.24	29571.7	36961.43
USA	US	34620.93	36449.86	37273.62	38166.04	39677.2

ALB	Albania	2416.588	2709.143	3005.013	3603.014	4370.54	4114.137
AUS	Australia	30472.38	34016.71	36118.28	40991.98	49664.69	42743
BOL	Bolivia	978.3346	1046.427	1233.594	1389.635	1736.935	1776.866
BRA	Brazil	3623.048	4770.183	5860.146	7313.558	8787.61	8553.38
BWA	Botswana	4896.584	5351.254	5374.555	5714.048	5623.38	5185.73
CAN	Canada	31979.87	36189.59	40386.7	44544.53	46596.34	40773.45
CHL	Chile	6210.828	7615.305	9484.681	10526.88	10781.37	10243.33
CHN	China	1508.668	1753.418	2099.229	2695.366	3471.248	3838.434
COD	Congo, Dem. Rep.	194.1668	218.5235	252.843	280.1217	318.1201	318.5
DEU	Germany	34165.93	34696.62	36447.87	41814.82	45699.2	41732.71
EGY	Egypt, Arab Rep.	1045.943	1168.115	1375.196	1640.476	2011.246	2291.667
GBR	UK	39983.98	41732.64	44252.32	50134.32	46767.59	38262.18
HTI	Haiti	387.943	465.3102	505.4706	615.8198	674.7564	668.2976
IDN	Indonesia	1222.912	1342.544	1688.874	1975.167	2300.371	2400.368
IND	India	621.3184	707.008	792.026	1018.166	991.4846	1090.318
IRN	Iran, Islamic Rep.	2729.838	3215.653	3738.689	4857.368	5574.41	5619.118
ITA	Italy	31174.56	31959.26	33410.75	37698.79	40640.18	36976.85
JPN	Japan	37688.72	37217.65	35433.99	35275.23	39339.3	40855.18
KAZ	Kazakhstan	2874.288	3771.279	5291.576	6771.415	8513.565	7165.277
MEX	Mexico	7199.06	7986.798	8767.92	9330.342	9689.053	7748.123
RUS	Russian Federation	4102.372	5323.474	6920.194	9101.253	11635.26	8562.81
SAU	Saudi Arabia	11138.81	13739.83	15334.67	16472.17	20037.83	16094.29
SWE	Sweden	42442.22	43085.35	46256.47	53324.38	55746.84	46207.06
USA	US	41921.81	44307.92	46437.07	48061.54	48401.43	47001.56

ALB	Albania	4114.137	4094.359	4437.178	4247.614	4413.082	4578.667
AUS	Australia	42743	51874.08	62245.1	67677.63	67792.3	62214.61
BOL	Bolivia	1776.866	1981.161	2377.676	2645.228	2947.939	3124
BRA	Brazil	8553.38	11224.15	13167.47	12291.47	12216.9	12026.62
BWA	Botswana	5185.73	6346.156	7645.215	7029.231	7007.626	7497.762
CAN	Canada	40773.45	47447.48	52082.21	52496.69	52413.72	50440.43
CHL	Chile	10243.33	12860.18	14705.69	15431.9	15941.4	14817.38
CHN	China	3838.434	4560.513	5633.796	6337.883	7077.771	7683.503
COD	Congo, Dem. Rep.	318.5	318.0758	357.4835	398.1407	420.8705	461.5681
DEU	Germany	41732.71	41785.56	46810.33	44065.25	46530.91	48042.56
EGY	Egypt, Arab Rep.	2291.667	2602.48	2747.48	3181.442	3213.389	3327.754
GBR	UK	38262.18	38893.02	41412.35	41790.78	42724.07	46783.47
HTI	Haiti	668.2976	662.2795	740.9358	766.8438	810.2656	830.1148
IDN	Indonesia	2400.368	3113.481	3634.277	3687.954	3620.664	3491.596
IND	India	1090.318	1345.77	1461.672	1446.985	1452.195	1573.118
IRN	Iran, Islamic Rep.	5619.118	6531.927	7729.343	7832.903	6036.192	5540.984
ITA	Italy	36976.85	35849.37	38334.68	34814.13	35370.28	35396.67
JPN	Japan	40855.18	44507.68	48168	48603.48	40454.45	38096.21
KAZ	Kazakhstan	7165.277	9070.65	11634.42	12387.19	13890.86	12806.57
MEX	Mexico	7748.123	8959.581	9834.473	9820.533	10298.87	10452.78
RUS	Russian Federation	8562.81	10674.99	14212.06	15154.46	15543.68	14125.91
SAU	Saudi Arabia	16094.29	19259.59	23770.75	25303.09	24934.39	24575.4
SWE	Sweden	46207.06	52076.26	59593.29	57134.08	60283.25	59180.2
USA	US	47001.56	48373.88	49790.67	51450.12	52787.03	54598.55