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Automatisch generierte Beschreibung

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Automatisch generierte Beschreibung

The gross domestic product (GDP) of a country is not only determined by the country's accessible capital stock. Other factors affect GDP as well. Population together with employment is associated with the available labour force of a country. The unemployment rate has effect on the inflation rate. Human capital is a factor which determines development and growth of an economy. Together with technology, it provides which goods and services are being produced/offered. These factors as well as additional ones have an impact on the GDP. Therefore, the regression suffers from omitted variable bias.

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Automatisch generierte Beschreibung

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Automatisch generierte Beschreibung

A 1 million USD increase in capital stock is associated with a 0.2338 million USD increase in real GDP, all other variables held constant. The effect is small but statistically and economically significant.

A 1 million increase in population is associated with a 583.6 million USD decrease in real GDP, all other variables held constant. The effect is economically not significant as we would expect a positive sign.



A 1 unit increase in total factor productivity is associated with a 594,300 million USD increase in real GDP, all other variables held constant. The effect is economically significant.

hypothesis testing:

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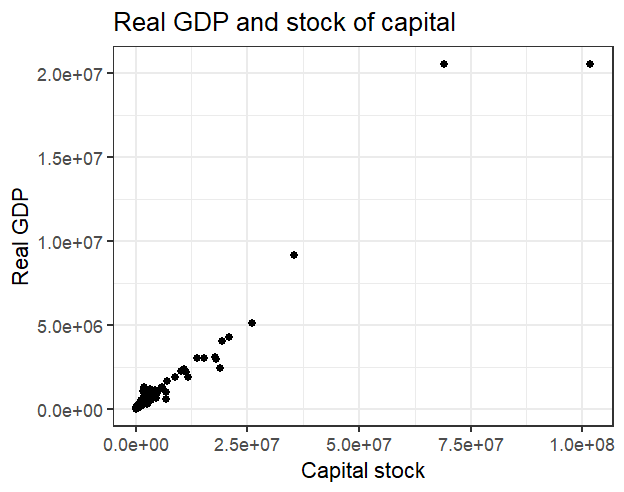
Automatisch generierte Beschreibung



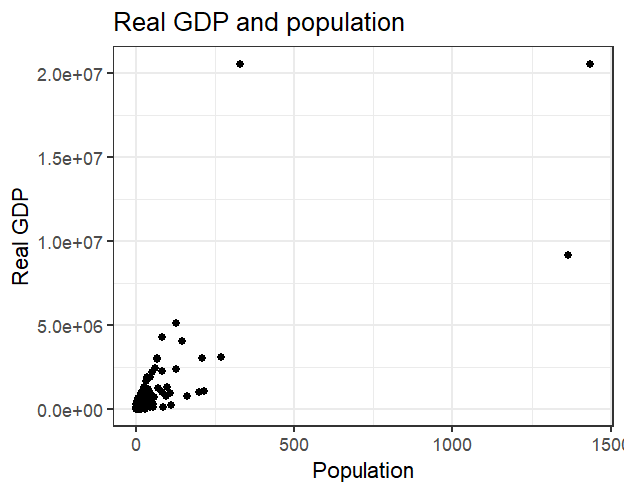
The F-statistic takes a very high value for the null Hypotheses. Therefore, we reject H\_0 at a significance level of 5%. That means with statistical significance the joint effect of population and the capital stock are not equal to 0.

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Automatisch generierte Beschreibung



The relationship between *Real GDP at constant prices of 2017* and *Capital stock at constant prices of 2017* looks linear.



The relationship between *Real GDP at constant prices of 2017* and *Population* looks linear but with a bigger variance.

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Automatisch generierte Beschreibung

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Automatisch generierte Beschreibung

A 1% increase in capital stock is associated with a 0.80% increase in real GDP, all other variables held constant.

A 1% increase in total factor productivity is associated with a 0.20% increase in real GDP, all other variables held constant.

A 1% increase in population is associated with a 2.65% increase in real GDP, all other variables held constant.

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Automatisch generierte Beschreibung

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Automatisch generierte Beschreibung







cannot be rejected at the 5% significance level. The sum of the two estimated coefficients *stock of capital* and *population* does not statistically significantly differ from 1. Although we fail to reject the null hypotheses, we still cannot statistically verify that we have constant returns to scale.

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Automatisch generierte Beschreibung

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This hypothesis captures the effects of population and capital stock in one variable. In this test we reject the null hypotheses. Meaning we don’t observe constant returns to scale.

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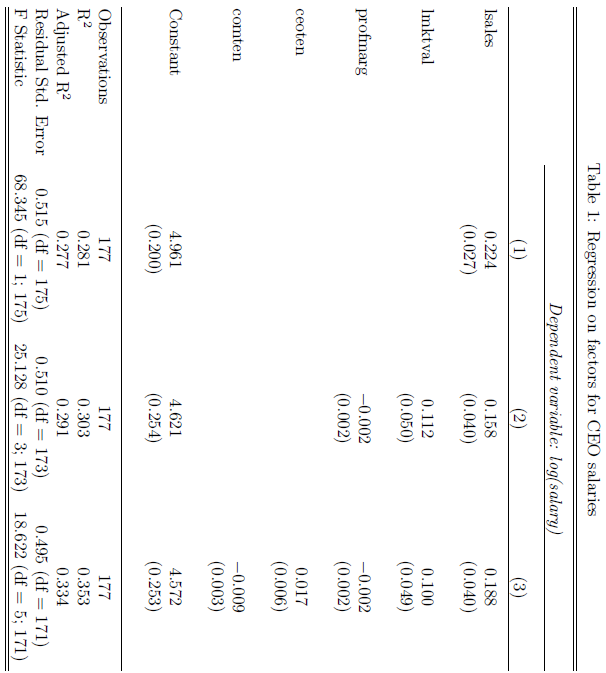
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Automatisch generierte Beschreibung

When using the *logarithm of the employed population* instead of the *logarithm of the population*, the estimated coefficient does not change much. This indicates a strong correlation between both estimates.

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Automatisch generierte Beschreibung



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Automatisch generierte Beschreibung

specification (2): A 1% increase in market value of the firm is associated with a 0.112% increase in CEO salary, all other variables held constant.



As we can reject at the 5% significance level. The market value of the firm has a statistically significant effect on CEO salary.

specification (3): A 1% increase in market value of the firm is associated with a 0.100% increase in CEO salary, all other variables held constant.

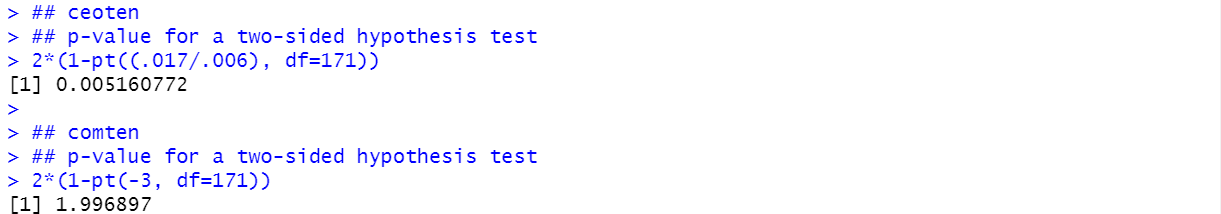


As we can reject at the 5% significance level. The market value of the firm has a statistically significant effect on CEO salary.

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Automatisch generierte Beschreibung

: A one year increase in being CEO with the current company is associated with a 1.7 increase in CEO salary, all other variables held constant.



As we can reject at the 1% significance level. The years as CEO with the current company has a statistically significant effect on CEO salary.

: A one year increase in total years of being with the company is associated with a 0.9 decrease in CEO salary, all other variables held constant.



As we can reject at the 1% significance level. The total years with the company has a statistically significant effect on CEO salary.

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Automatisch generierte Beschreibung

The critical value is 5.466 for a two-sided F test at the 1% significance level.



As we can reject at the 1% significance level. The years as CEO with the current company () and total years of being with the company () have a statistically significant effect on CEO salary.

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Automatisch generierte Beschreibung

There could be many reasons why employees have a long tenure with the company. When employees are satisfied with their profession, they have no incentives to leave the company. Other may have high responsibilities (also towards others) so they feel like they cannot change they job. When employees are risk-averse, they may do not want to ask for higher salary as they fear getting replaced.

Moreover, there may be differences in urban and rural area. In cities it is easier for person to change the company as they have more possibilities to find a profession that fits to their skills and know-how.

Dedication, loyalty as well as limited mobility may result in lower salary as the employers do not have incentives to increase their wage as the employees stay anyway.