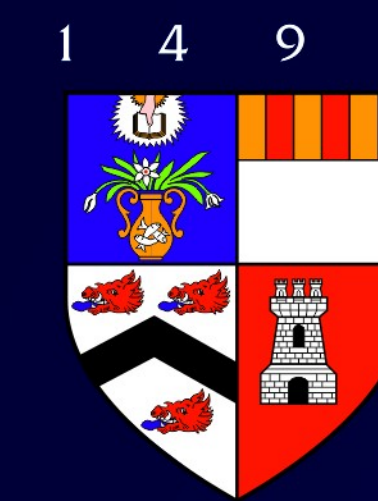


Exploring the Transmission Channels of Petroleum Oil Price to Economic Growth

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Background/Motivation

- ❑ The energy sector is vital to the economic development of both energy-importing and energy-exporting countries.
- ❑ If energy consumption influences economic growth then increased energy prices and thus lower energy availability may have adverse welfare effects.
- ❑ Even though existing literature agrees that oil prices affect economy structure, it is useful to assess the channels in which petroleum oil is sensitive to these changes
- ❑ The author is **inspired by:** Few extant literature on the mechanisms by which petroleum oil price affects economic growth



- ❑ What is the nexus between petroleum oil price and economic growth?
- ❑ How does the relationship between petroleum oil prices differ among oil-exporting and oil-importing countries?

- ❑ Effects on investment, inflation, and exchange rate influence the relationship between petroleum oil prices and economic growth?

Methodology

- ❑ Relevant data from 2009 to 2019 to capture the surge in petroleum oil prices was sourced from International Energy Agency and World Bank's Development Indicators
- ❑ Analysis based on **Pooled OLS, Fixed Effect Model and Random Effect Model**
- ❑ From Hausman Test, FEM was preferred to REM with the exception of the petroleum oil importing model under the mediation analysis.

Empirical Model

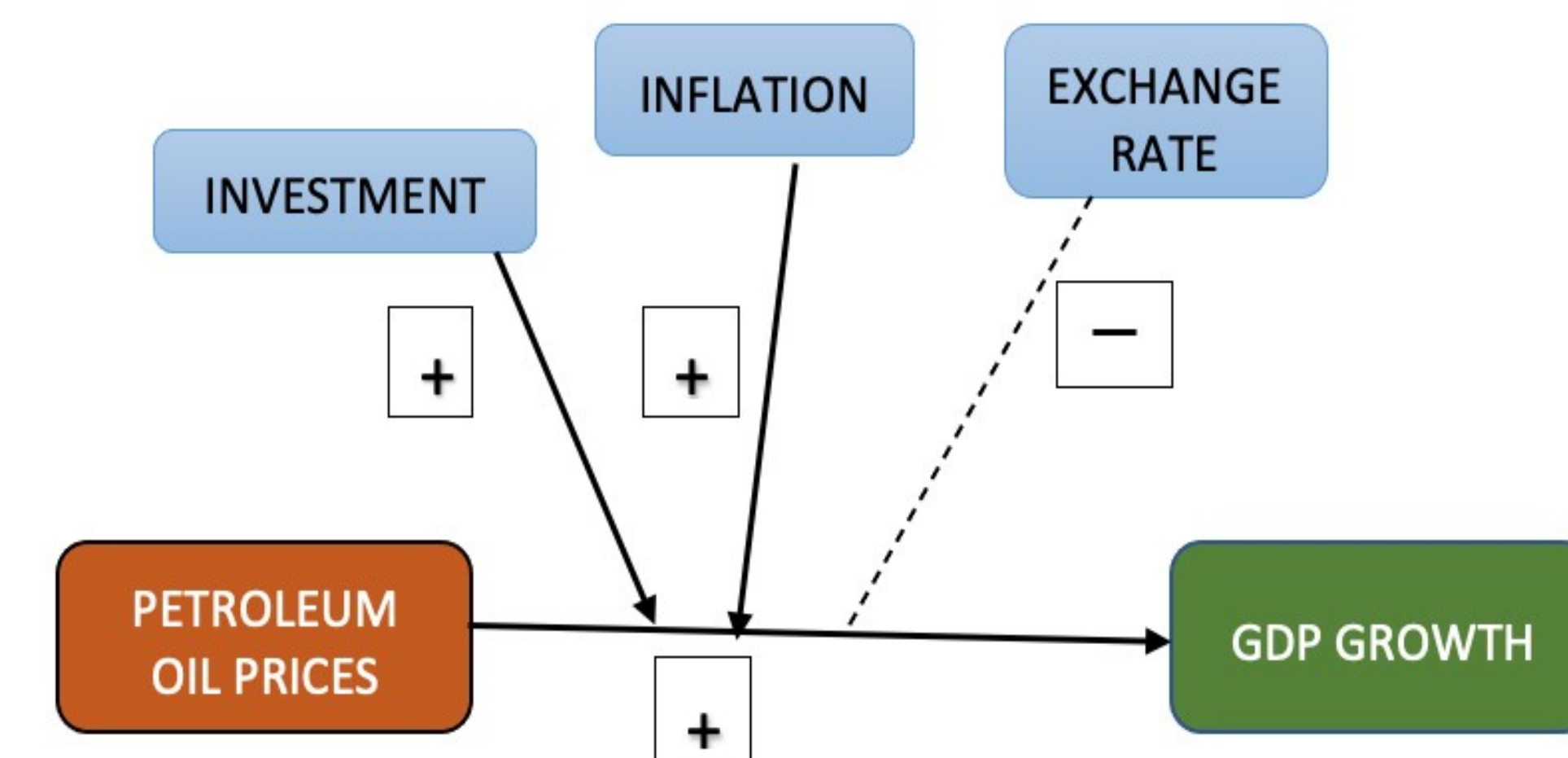
Results

- ❑ Multicollinearity is not an issue as the test showed all the variables has a lower correlation.
- ❑ The Hausman Test established FEM is suitable than REM except for petroleum oil importing model
- ❑ The results showed 0.6171 R-square value for FEM compared to 0.4345 and 0.3950 for pooled OLS system and REM. This indicates the explanatory variables accounts for about 62 percent variations in the dependent variable

Conclusion

- ❑ This study reports a significant positive effect of petroleum oil price on economic growth contradicting the general notion of negative impact.

- ❑ In the case of oil-exporting countries, a significant positive effect is seen between petroleum oil prices and economic growth while an insignificant negative effect is observed for oil-importing countries.
- ❑ Investment and Inflation has positive interactive effect on the relationship between petroleum oil price and economic growth
- ❑ Exchange rate has no significant effect even though it was found to be negative on the relationship between the petroleum oil price and economic growth



Policy Recommendation

To mitigate the effects of the petroleum price shocks on economic growth, particularly in the setting of developing nations, it is necessary to enact measures to boost fixed capital formation and counter inflationary pressures.