Potential Economic Impact of Green Economies and Determinants of Carbon emission in Central Asia: the case of Kazakhstan and Uzbekistan

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Summary

Annual panel data from 1990 to 2020 T=31

green economy strategies adopted by (44) Kazakhstan in 2013 and (114) Uzbekistan in 2019

Countries: Kazakhstan, Uzbekistan

Data source: World Bank and OECD

2 Methods:

1. Oxford observatory methodology (O'Callaghan, 2021)

- Assessment of Green interventions; Speed of Policy Implementation (SPI) and Long-run multiplier effect

2. FE-model

- Correlation between CO_2 emission and GDP value and Determinants of CO_2 emissions

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Strengths

- Good structure

- The topic is timely and relevant to the conference

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1. Oxford observatory methodology (O'Callaghan, 2021)
Assessment of Green interventions; Speed of Policy Implementation (SPI) and Long-run multiplier effect

- Method, Oxford observatory methodology, needs more explanation. What are strengths, limitations, criticism, etc. What other papers which used this method found?

- 44 interventions across the seven sectors in the Kazakhstan's green economy strategy document - Why only Kazakhstan's green economy strategy?

- Why these years were selected? green economy strategies adopted by (44) Kazakhstan in 2013 and (114) Uzbekistan in 2019

- How the SPI and Long-run multiplier effect was calculated?

- What does mean 'positive economic multiplier effect'?

- Literature shows that not all green interventions lead to positive impact on GDP (e.g. ETM)

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2. FE-model
Correlation between Co2 emission and GDP value and Determinants of CO2 emissions

- Econometric model (CO2) need to justify all variable included (not sure how forest area affects emissions) and missing variables (e.g. sector/economy structure).

- Robustness check is missing

- Main limitation: <mark>very small data sample</mark> N=49-62

- Coefficients (the magnitude) are not explained

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Section 5. Policy Options

Section 5. Policy Options should be used evidence-based on the results and be as specific as possible rather than general:

For example, the following relationship renewable – reduce economic loss does not look like coming from your results: *'The main implication of the study for Central Asia economies is the importance of speedy implementation of investment packages in green energy, mainly in the* ==renewable== *energy sector, and investment in green spaces as an alternative to the dominant economic model that uses a lot of fossil fuel energy. This will reduce the environmental risks and* ==economic loss== *in the future.'*

Usually governments care about emission per capita or per GDP rather than total, thus I don't think this is a good policy implication: *The empirical study suggests that the countries in the study should consider controlling population growth*

Other comments

paper title needs to be revised to match the content:

Potential Economic Impact of Green ~~Economies~~ <mark>Interventions</mark> and Determinants of Carbon emission in Central Asia: the case of Kazakhstan and Uzbekistan

What is the contribution of this paper to the literature?

Literature review need to lead to methodology and results (e.g. Kuznets curve)

Not sure how Green Economies Interventions and Determinants of Carbon emission in Central Asia are linked; looks two big topics sufficient for 2 separate papers. I would recommend to cover very well one topic.

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Thank You