



UNIVERSITY OF MACAU  
FACULTY OF SOCIAL SCIENCES  
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**Does the Environmental Kuznets Curve Exist? An  
Empirical Analysis from China**

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# Abstract

*Abstract of thesis entitled “Does the Environmental Kuznets Curve Exist? An Empirical Analysis from China”, submitted by Zhao Jia (M-B1-5627-5) for the degree of Master of Social Sciences of Economics at the University of Macau in May 2014.*

The Environmental Kuznets Curve (EKC) has been widely discussed in the environmental economics. A large literature presents that the environmental pollution and the economic growth demonstrate an inverted-U relationship. This paper focuses on the case of China and considers the effect of the economic growth on carbon dioxide emission, at the same time, we take into account the effects of the capital-labor ratio, per capita energy consumption and economic openness as well. Our analysis derives several interesting results: (1) the per capita CO<sub>2</sub> emission and per capita GDP demonstrate an inverted-U relationship; (2) more capital use would be involved in more per capita carbon dioxide emission, but the labor-intensive production would not; (3) more per capita energy consumption would give rise to more per capita carbon dioxide emission; (4) the impact of the international trade on per capita carbon dioxide emission is negligible. Our results also shed the light on some policy decisions, for instance, we can reduce the negative effect of the per capita energy consumption through introducing clean energy or restrict the per capita energy consumption through designing the optimal tax.

*Keywords: Environmental Kuznets Curve; Per capita CO<sub>2</sub> emission; Per capita energy consumption; Capital-labor ratio; Economic openness.*



# Declaration

I declare that the thesis demonstrates my own work, except where due acknowledgment is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.

Signed \_\_\_\_\_



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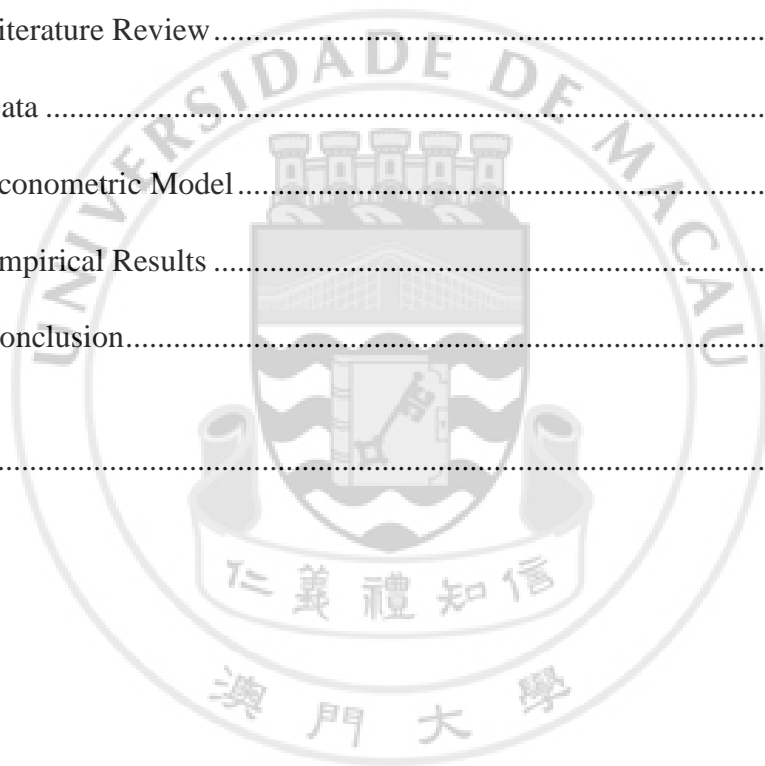
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