Building a Research Network for Climate Change and China-EU Trade

Final Project Report

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Academic Consortium 21

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1. Project Summary

In the area of environmental economics in open economies, there has been a long-running debate known as“pollution haven hypothesis (PHH)”. Its main argument is whether pollution-intensive manufacturing has a tendency to move from developed countries to developing countries, where the environmental regulations are comparatively lax. With increasing attention being paid to the issue of climate change, anew research field, connecting both PHH and climate change, is becomingmore and more important. Many exciting questions remain open in this field. For example, both scholars and governments are eager to find outwhether stricter carbon emission standards will dampen the competitiveness of trade. With the generous support of AC21, our four universities, two from China and two from Europe, have established an interdisciplinary team to work together on climate change and China-EU trade. The research team will provide a platform for future academic exchanges and hopefully contribute to the international collaboration of the four AC21 partner universities.

The four AC21 partner universities enrolled in this project are Nanjing University, Huazhong University of Science & Technology, the University of Strasbourg and the University of Freiburg. In addition, three non-AC21 institutions have also joined the project. They are China’s Ministry of Commerce, China’s Ministry of Environmental Protection, and the University of GoettingeninGermany. All these AC21 partners and non-AC21 institutions have contributed greatly to the project.

The summaries of our major activitiesare listed below:

(1) Set up an international interdisciplinary team consisting of professors, doctoral students and master's students from the AC21 partners and non-AC21 institutions.

(2) Academic visits among cooperating universities and student exchange projects.

(3) Helda series ofseminars on climate change and China-EU trade.

(4) Publishedco-authoredpapers atfour conferences.

2. Hangzhou Conference

We participated inthe 3rd China Trade Research Group (CTRG) Annual Conference held on May 17-18 in Hangzhou.

Organizer: China Trade Research Group

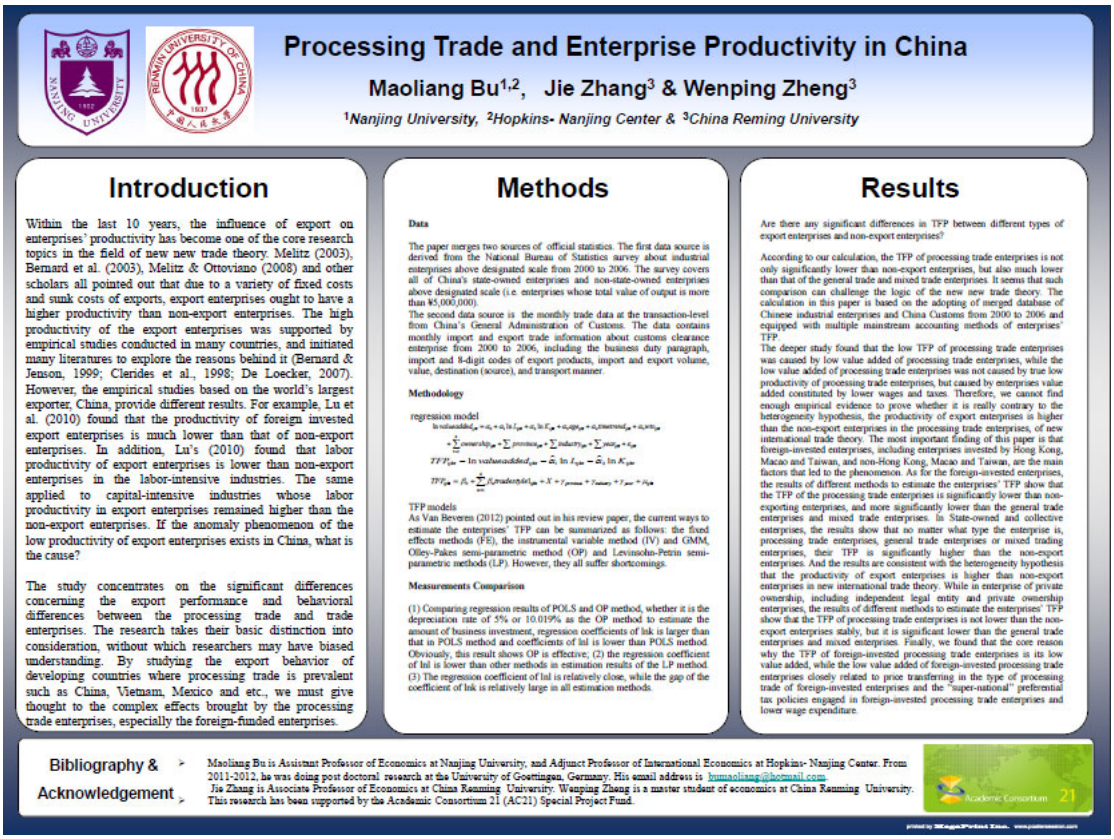
Local Organizer: School of Economics, Zhejiang University

Sponsors: School of International Business Administration, SHUFE

Institute for China and Global Development, HKU

THE China Trade Research Group (http://gsgl.shufe.edu.cn/ctrg/index.asp), or CTRG, was founded in August 2010 inShanghai, China. The goal of CTRG is to establish a world-wide research platform on international trade and FDI concerned with China.

Below is our conference poster showing the AC21 logo.



Atthis conference, we met aprofessor from another AC21 partner,Peking University, and found that there were many overlaps between our research and his. We exchanged research ideas and talked about the possibility of future collaboration.

3. Xiamen Conference

We joined the 2013(2nd) Young Scholars Symposium on InternationalEconomics and Business, on Nov. 29 –Dec.1 in Xiamen.

The title of our paper was“Carbon Emissions and China-EU Trade”. The coauthors of the paper are all from the AC21 partner institutions, consisting of Prof. Shu Yang from Huazhong University of Science & Technology, Dr. PierrePessarossi from the University of Strasbourg and Mr. Yannick Bury from the University of Freiburg.

The abstract of the paper is given below:

Recently, whether environmental regulation impacts uponacountry's competiveness has been gaining more and more attention. With the issue of climate change on a global scale continuing to heat up, new research highlights the growing importanceof carbon emission constraints that affect a country's trade competitiveness. UsingEU trade data, we found that carbon constraints among EU countries revealed comparative advantages and thatthey have a significant positive effect. This finding is used by Michael Porter and other advocates of environmental regulation as evidence to enhance the competitiveness hypothesis, rather than supporting the "pollution haven hypothesis." Further sub-sample regression studies show that environmental regulation to enhance the competitiveness of action exists only in non-resource-intensive industries, not in resource-intensive industries. This article studies the field of trade and the environment to create new developments, but also provides important policy implications for developing countries.

Atthisconference, we met aparticipant from another AC21 partner, Peking University. Her research is also on trade. We introduced her to our research and the AC21 project. She wasvery interested, and said shewould pass onour project information to her colleagues atPeking University.

4. Shanghai Conference

We joined the KAS-WTO conference on “Trade and Climate Change” held by the Konrad-Adenauer-Stiftung (KAS) on Nov.23, 2013, in Shanghai.

Here is a brief introduction tothe conference, which can be accessed online from the following link: http://www.kas.de/china/en/events/57231/

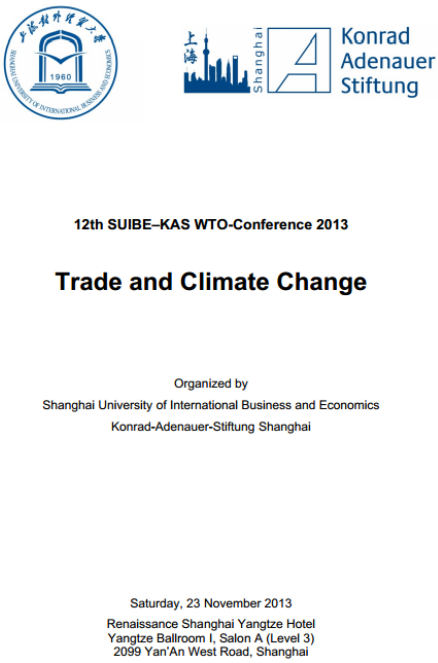
Climate change is one of the greatest challenges the international community is currently facing. Mitigating global warming and adapting to its consequences will require far-reaching changes in global economic frameworks and major economic investment — the future of globalisation will depend on how we shape trade and production patterns towards a climate friendly and sustainable mode.

Against this background, KAS and SUIBE invited a number of international senior experts from the most important global trading nations. They will discuss obstacles and potentials of both existing and emerging trade regimes and theircontribution to mitigatingclimate change. Young Chinese scholars will provide and discuss their latest findings on the topic.

Date: Saturday, November 23, 2013, 8.30 -17.30

Venue: Renaissance Shanghai Yangtze Hotel, Yangtze Ballroom II, Salon A (Level 3), 2099 Yan’An West Road, Shanghai

Atthe conference, we met Prof. Dajian Zhu from another AC21 partner,Tongji University. He is afamous expert in the field of green economy. In addition, we met several participants from the EU and exchanged research ideas with them.



5. Guangzhou Conference

We participated inthe Conference on Industrial Upgrading and Sustainable Economic Growth in China held by the Chinese Economics Society of Australia (CESA) on Dec 12-13 in Guangzhou. The conference website is as follows:

http://www.ces-aus.org/2013/12/11/joint-cesa-jinan-university-guangzhou-conference/.

The focus of this conference wasvery close to the topic of our project. We presented apaper titled “Is Foreign Direct Investment Sensitive to the Environmental Regulation: Firm Level Evidence from China”. The introduction is given below:

At the center of the pollution haven debate is whether foreign investments are impacted by the environmental regulations of developing countries. Most empirical studies try to provide evidence from aggregated data, and arefairly lacking in direct evidenceon amicrolevel. To fill this gap, this paper tests the intra-country pollution haven effect by estimating the determinants of foreign direct investment in China, using a large firm-level panel data sample. Evidence from this study supports the existence of pollution havens within China in certain cases. However, the sensitivity of foreign investments to environmental regulations varies a lot across different industries of pollution characteristics. Furthermore, we consider the impact of subsidies from the government on foreign direct investment. Results show that subsidies matter a lot to corporate location decision, and outweighthe pollution treatment costs in areas with stricter environmental regulations.

Atthe conference, we met some participants from another AC21 partner, Peking University. We exchanged research ideas and explored the possibility of future collaboration.

6. Seminar Series

With the generous financial support from AC21, we organized a series of seminars on climate change and trade. The participants weremainly from Nanjing University.

Below are a brief list and some photos of the seminars.

Time	Topic
03.26	Kahn, M. E. (2004). "Domestic pollution havens: evidence from cancer deaths in border counties." Journal of Urban Economics 56(1): 51-
04.02	Jan H. Hoeffler, “Teaching Replication in Quantitative Empirical Economics”
04.02	Aichele, R. and G. Felbermayr (2013). "Estimating the Effects of Kyoto on Bilateral Trade Flows Using Matching Econometrics." The World Economy 36(3): 303-330.
04.09	Manderson, E. and R. Kneller (2011). "Environmental Regulations, Outward FDI and Heterogeneous Firms: Are Countries Used as Pollution Havens?" Environmental and Resource Economics 51(3): 317-352.
04.16	Martínez-Zarzoso, I. and A. Maruotti (2011). "The impact of urbanization on CO2 emissions: Evidence from developing countries." Ecological Economics 70(7): 1344-1353.
04.23	Rezza, A. A. (2013). "FDI and pollution havens: Evidence from the Norwegian manufacturing sector." Ecological Economics 90(0): 140-149.
05.07	Batrakova, S. and R. Davies (2012). "Is there an environmental benefit to being an exporter? Evidence from firm-level data." Review of World Economics 148(3): 449-474.
05.14	Levinson, A. (2009). "Technology, International Trade, and Pollution from US Manufacturing." American Economic Review 99(5): 2177-2192.
05.21	Introduction tothe WIOD database
05.28	Tambunlertchai, K., A. Kontoleon, et al. (2012). "Assessing participation in voluntary environmental programmes in the developing world: the role of FDI and export orientation on ISO14001 adoption in Thailand." Applied Economics 45(15): 2039-2048.

06.04	Baghdadi, L., I. Martinez-Zarzoso, et al. "Are RTA agreements with environmental provisions reducing emissions?" Journal of International Economics(0).
06.18	Marconi, D. (2012). "Environmental Regulation and Revealed Comparative Advantages in Europe: Is China a Pollution Haven?" Review of International Economics 20(3): 616-635.
09.10	Prof. Jennifer Te LAI,“Consumption risk sharing and self-insurance across provinces in China: 1952-2008”
10.11	Chen, Y., A. Ebenstein, et al. (2013). "Evidence on the impact of sustained exposure to air pollution on life expectancy from China'sHuai River policy." Proceedings of the National Academy of Sciences.
10.18	Hering, L. and S. Poncet (2012). "Environmental policy and trade performance: Evidence from China." Working paper.
10.25	Chen, Y., G. Z. Jin, et al. (2011). The promise of Beijing: evaluating the impact of the 2008 Olympic games on air quality, JEEM
11.01	Elliott, R. J. R., P. Sun, et al. (2013). "Energy intensity and foreign direct investment: A Chinese city-level study." Energy Economics 40(0): 484-494.

7. Acknowledgements

Finally, we would like to thank the AC21 General Secretariat and the AC21 Special Project Fund for their generous financial support.