

Global Challenges at the Intersection of Trade, Energy and the Environment

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A Chinese perspective on trade and climate change¹

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A Chinese perspective on trade and climate change: Does the international cooperation in carbon financial regulation need to be strengthened?

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In the first part of my presentation, the focus is the scope and risks of the carbon finance. I will then look at the carbon finance and China. Finally I will explore some of the issues that need to be addressed when considering negotiating new or improved rules on energy governance. They include the absence of current rules in place or current rules could be clarified.

1. Scope and Risks of Carbon Finance

At the starting of discussion of carbon finance, one issue is to define what the carbon finance mean. There are different definitions of carbon finance. In the view of the World Bank, carbon finance is the general term applied to resources provided to a project to purchase greenhouse gas (GHG) emission reductions (“carbon” for short).⁴ Carbon finance may cover “market solutions to climate change”,⁵ and is broader than carbon credit trading as new instruments (such as weather derivatives and catastrophe bonds) are being developed to facilitate the transfer of weather-related risks from adverse weather and extreme events.⁶ In general, there is a broad coverage of the carbon finance.

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⁴ The World Bank Carbon Finance Unit, Carbon Finance at the World Bank: Frequently Asked Questions, <http://wbcarbonfinance.org/Router.cfm?Page=FAQ&ItemID=24677#4>, last visited October 1, 2009.

⁵ Sonia Labatt and Rodney R. White, Carbon Finance: The Financial Implications of Climate Change, Hoboken, New Jersey: John Wiley & Sons, Inc., 2007, at 2.

⁶ Sonia Labatt and Rodney R. White, *supra* note 2, at 227.

Some observations could be made here. First, in many cases carbon finance is closely connected with the Clean Development Mechanism (CDM) projects. The Kyoto Protocol created Joint Implementation (JI)⁷ and the CDM⁸ to encourage investments in projects that reduce carbon emissions in industrialized and developing countries respectively. There are Certified Emission Reductions (CERs) arising from CDM projects and Emission Reduction Units (ERUs) arising from JI projects. CERs are project-based and have undergone registration (e.g. by the CDM Executive Board).⁹ Projects qualifying under the CDM can generate CERs which are then purchased by carbon investors or sold unilaterally by the project owner, through the international markets. The carbon finance helps to price the carbon emission allowances, manage emissions price risks, and provide funding for the CDM projects. For instance, \$1 of carbon finance leverages \$3.80 of underlying investment on average, and \$9 of underlying investment in renewables in clean energy sector.¹⁰

Second, there are various participants in carbon finance market, including the private entities and public entities such as the World Bank and governments. For instance, the carbon finance products of the World Bank help grow the emission reductions market by extending the frontiers of carbon finance to new sectors or countries that have yet to benefit, and to reduce market entry risks for participants through the establishment of Carbon Funds and by pooling early participants in the market.¹¹ Although the World Bank involves in market areas that the private sector won't go as they perceive the risk as being too high, there is also public-private

⁷ Article 6 of the Kyoto Protocol.

⁸ Article 12 of the Kyoto Protocol.

⁹ The World Bank Carbon Finance Unit, Carbon Finance at the World Bank: Frequently Asked Questions, <http://wbcarbonfinance.org/Router.cfm?Page=FAQ&ItemID=24677#4>, last visited October 1, 2009.

¹⁰ Robert B. Zoellick, Carbon Markets for Development, (October 12, 2008) [http://wbcarbonfinance.org/docs/Development Committee Bali Breakfast Series Carbon Markets 4 Development 10-08.pdf](http://wbcarbonfinance.org/docs/Development%20Committee%20Bali%20Breakfast%20Series%20Carbon%20Markets%204%20Development%2010-08.pdf), at 8.

¹¹ The World Bank Carbon Finance Unit, Carbon Finance at the World Bank: Frequently Asked Questions, <http://wbcarbonfinance.org/Router.cfm?Page=FAQ&ItemID=24677#4>, last visited October 1, 2009.

partnerships in carbon funds whose trustee is the World Bank.¹² Financial institutions may be involved in providing futures contracts, forward contracts, swaps, options and other derivatives in the carbon finance market. Financial intermediaries can attract private investment through developing carbon finance products. Carbon investors, project owners, exchanges, and other entities from different countries may play their role in the carbon market too.

Third, different kinds of risks exist in the carbon finance. One kind of risks is policy risks. These risks may occur at the international and national level. At the international level, the carbon finance is, in many cases, closely connected with the CDM projects under the Kyoto Protocol whose first commitment period expires in 2012. In the post-2012 period, the international arrangement on GHG emission control remains unclear. It will significantly affect the carbon and carbon finance in China which is one of the major supply countries of CERs. At the national level, there may be domestic policy towards the carbon emission reduction, which in turn will affect the carbon finance market. Such policy uncertainty would constitute potential risks for carbon finance.

Another major kind of risks is market risks. There are similar risks in the carbon finance products and other financial products. However, the carbon finance products may be subject to more complicated factors in particular those arising from climate policy. Although platforms such as the International Carbon Action Partnership have been formed, there is no well-developed global market of carbon emission rights that is easily accessible to the states including developing ones. The function of price discovery is therefore restrained. Speculation risks still exist, and prices sometimes change dramatically especially for the complicated carbon derivatives.¹³ Lessons from the subprime crisis shall be borne in mind. Moreover, in many instances CERs from CDM projects and ERUs from JI projects are sold forward from projects that have yet to start operations and therefore have material risks of non-delivery, such as risks

¹² Ibid.

¹³ Yuan Ying, Carbon Finance: More than Opportunities, Yinhang Kehu, Vol. 9, 2008, at 22.

arising from the project planning, construction, and operations.¹⁴ Risks may exist in the operation and implementation of the projects which receive the carbon finance. One example is the breach of contract on the part of the buyers of the CERs in the context of market price fluctuation.¹⁵

2. China and Carbon Finance

Although not bound by the Kyoto Protocol, the Chinese government considers climate change as one of its major issues for government action. On June 4 2007, the National Program on Climate Change was released, which provides guidance for the future national and provincial policies on climate change. In August 2009, the Standing Committee of National People's Congress has passed the resolution on active response to the climate change. In the recent United Nations Climate Change Summit, China expressed the determination to take further actions to handle the climate change. All these domestic policies and the CDM projects, and the voluntary emission reduction efforts of some domestic enterprises provide the great opportunities for the carbon finance development in China.

China is playing an increasingly important role in the carbon finance market. By far the largest source of credits has been China, which by virtue of its size and substantial growth rate has been able to demonstrate more opportunities for reducing its GHG emissions growth rate.¹⁶ Rather than coming from projects reducing fossil fuel use, most of the credits reduce emissions of very potent GHGs from chemical processes (HFC and N₂O)¹⁷. Different entities participate in the carbon finance in China, including governmental agencies (e.g., the People's Bank of China, Ministry of Environmental Protection), domestic and foreign financial institutions, investors, and

¹⁴ Global Trends in Sustainable Energy Investment 2009: Analysis of Trends and Issues in the Financing of Renewable Energy and Energy Efficiency, 2009, at p. 46.

¹⁵ Wang Jiang, Chen Xi, CDM-related Carbon Finance Market of China and the Market Supply Problem in Active Markets, *Jingji Luntan*, Vol. 10, 2009, at 5.

¹⁶ Global Trends in Sustainable Energy Investment 2009: Analysis of Trends and Issues in the Financing of Renewable Energy and Energy Efficiency, 2009, at p. 46.

¹⁷ *Ibid.*

domestic enterprises. Tianjing Climate Exchange has been recently appointed by the People's Bank of China, the central bank of China, as the experimental platform for carbon finance. The former General Administration of Environmental Protection, currently State Environmental Protection Administration, has collaborated with the International Finance Corporation to draft the "Green Credit and Environmental Protection Guideline".

Compared with a mature market, carbon finance is in its infancy in many aspects such as the quite limited scope of which can be traded on this market.¹⁸ The carbon finance of China is even in a more underdeveloped stage for the reasons including international arrangement uncertainty and industry capacity limit. There is still considerable uncertainty in terms of China's role in the carbon finance, which largely depends on the post-2012 global carbon control arrangement. China faces a major challenge of balancing the objectives of sustained economic growth with environmental sustainability, responding to demands for greater responsibility in tackling climate change along with growing concerns about its rising competitiveness among its trading partners.¹⁹ Meanwhile, financial institutions in China just start to provide carbon finance products due to their limited capacity to innovate in carbon finance market. The regulators of China and other developing countries are not very familiar with the rules and practices of carbon finance too. But there are some tentative measures adopted by Chinese governments to handle the potential risks. One typical example is that China has set the minimum sales price for the carbon emission reduction arising from the CDM projects.²⁰ The development of China's regulation on carbon finance remains to be seen in the future.

¹⁸ Sonia Labatt and Rodney R. White, *supra* note 2, at 229.

¹⁹ See Trade, Climate Change and Global Competitiveness: Opportunities and Challenges for Sustainable Development in China and Beyond, March 2008, p. 4.

²⁰ LU Zhenghua, Increased Risks in Breach of Contracts, China's Transactions at the Cross Road, http://www.21ce.cc/content.jsp?classid=1090&typeid=1065&news_id=20090323112024900563 (last visited October 17, 2009).

3. International Regulation of Carbon Finance: Present and Future

3.1 GATS Rules and Carbon Finance

One may argue that the IMF and the World Bank are closely involved in climate and carbon finance, whereas the WTO is not on the scene.²¹ It does not mean that the WTO rules are irrelevant to the carbon finance. Rather the WTO rules play an important role in the regulation of carbon finance. In the broader sense, the concerns about violating WTO rules have had a “chilling effect” on climate treaty negotiation.²²

The GATS are applicable to the measures affecting services, especially financial services, in the carbon finance. Many rules of the GATS are relevant, including prudential regulation,²³ domestic regulation discipline,²⁴ national treatment and most-favored nation treatment. The Members may adopt measures for prudential reasons, “including for the protection of investors, depositors, policy holders or other persons to whom a fiduciary duty is owed by a financial service supplier, or to ensure the integrity and stability of the financial system”.²⁵ These prudential measures in fact constitute in some sense an emergency safeguard measure. The domestic regulation discipline is also relevant to avoid the possible impediments to the carbon finance market.

National treatment and most-favored nation principles may require that foreign investors and financial service providers be allowed to participate in the domestic cap-and-trade system.²⁶ The national treatment provision will in turn depends on the commitments of the member. It is noteworthy that China has made substantial commitments in the financial services sector. Meanwhile, the complexity of

²¹ Jillian Button, *Carbon: Commodity or Currency? The Case for an International Carbon Market Based on the Currency Model*, 32 *Harv. Envtl. L. Rev.* 571, at 593.

²² Steve Charnovitz, *Trade and Climate: Potential Conflicts and Synergies*, in *Pew Center on Global Climate Change, Beyond Kyoto: Advancing the International Effort against Climate Change* 141, 142 (2003).

²³ GATS Annex on Financial Services, para 2 (a).

²⁴ GATS, Article VI.

²⁵ GATS Annex on Financial Services, para 2 (a).

²⁶ Elias Leake Quinn, *The Solitary Attempt: International Trade Law and the Insulation of Domestic Greenhouse Gas Trading Schemes from Foreign Emissions Credit Markets*, 80 *U. Colo. L. Rev.* 201 (2009), at 203.

participants in the carbon finance market may also bring challenges when the WTO rules are applied. As the WTO law usually imposes obligations on the governments rather than on private parties, there may be some problems with regard to the practice of the private entities in the carbon finance market. GATS Article IX on business practices may help to handle some of the problems but may not be sufficient. Moreover, in the Decision on Trade in Services and the Environment adopted at the end of the Uruguay Round, it indicates that the measures to protect the environment may conflict with the GATS provisions, and that it is not clear that there is a need to provide for more than is contained in paragraph (b) of the GATS Article XIV on general exceptions.²⁷

3.2 Possible Rules Development or Clarification

The WTO rules, if properly developed and applied, may further development the carbon finance. There are a number of aspects that deserve attention.

First, the legal characterization of carbon is crucial to the regulation of carbon finance. The key to expanding carbon finance is a credible long-term signal for the price of carbon.²⁸ However, it is unclear whether emission rights are commodities, currency-like units, or others such as securities.²⁹ Meanwhile, it need to be decided whether carbon shall be recognized as an asset or liability, as a future source of cash flow or expenditure, or as a source of return and risk.³⁰ Such legal characterization of emission rights is important not only to decide the institutions responsible for regulating the carbon finance, but also to impact the platforms on which derivatives are traded.³¹ Potential confusion could be found at the domestic institutions. In Germany, emissions derivatives will be monitored by the Federal Agency for Financial Services (Bundesamt für Finanzdienstleistungen) whereas spot trades of emissions units for

²⁷ WTO, Decision on Trade in Services and the Environment.

²⁸ International Carbon Action Partnership, Summary Report of the Second Global Carbon Market Forum on Auctioning, "Auctioning carbon allowances – towards robust auction design and implementation", http://www.icapcarbonaction.com/phocadownload/icap_auctioning_conference_report_final.pdf, at 9.

²⁹ Jillian Button, *supra* note 18, at 575-80.

³⁰ Sonia Labatt and Rodney R. White, *supra* note 2, at 222.

³¹ Jillian Button, *supra* note 18, at 590-91.

compliance purposes will not.³² In the USA, the Acid Rain Program has not required a market overseer other than the U.S. Environmental Protection Agency.³³ With regard to the international overseer of carbon finance, it is also needed to clarify the nature of the emission allowances or credits, and then identify the proper regulator for the carbon finance.

Second, the international cooperation of carbon finance regulation is necessary to avoid the race to the bottom and ensure market access. The costs of carbon emission rights will partially be affected by the price of carbon finance products. Theoretically there could be the possibility for a government to set lax regulation on carbon finance products to increase the competitiveness of their industries. International cooperation on the minimum standards of carbon finance regulation may be established in or outside the WTO framework. Overly burdensome regulations may also exist for foreign service suppliers. Perhaps the domestic regulation discipline on carbon finance may be negotiated. In the future disciplines on the domestic regulation on carbon finance, the technical assistance and special and differential treatment for developing countries need to be developed. With regard to the services trade as a whole, such concern on future domestic regulation provisions for developing countries has arisen.³⁴ As a developing country and a newly acceded member (RAM) of the WTO, the technical assistance may be needed to improve the capacity of China to regulate financial services related to carbon. The carbon finance in developing countries deserves more attention.

Third, transparency and accountability of the governments is needed to make the carbon market and the carbon finance market efficient. The lessons could be drawn from the European emissions trading scheme (ETS) allowance price plunge from €30 to €13.19 in about 3 days in April 2006. It was due to revelations of Dutch and other governments of 2005 CO₂ emissions and rumors about the overallocation of

³² Ibid.

³³ Ibid, at 591.

³⁴ See Working Party on Domestic Regulations, Communication from Brazil, Colombia, Dominican Republic, Peru and the Philippines, Elements for Draft Disciplines on Domestic Regulation, Room Document, 26 April 2005, paras 11-18; S/WPDR/W/32.

allowances to industry.³⁵ Shortly thereafter the situation was negatively affected by the European Commission, who accidentally post emissions data on the over-supply of allowances in the first phase of the ETS on its website in early May 2006 ahead of scheduled May 15.³⁶

4. Conclusion

The WTO rules will have effect on the carbon finance but are not enough given the challenges listed above. The cooperation beyond the WTO is also needed to strengthen the regulation and to ensure the integrity of the carbon finance market. Other international institutions may be needed to contribute to the process. It may occur in the framework of the IMF (if the carbon is deemed a currency), the World Bank which provides the funding for the carbon emission reduction, among others. The lessons from the subprime crisis shall be drawn. Such necessity is even more real if the cross-border or even global carbon finance come into being in the future among currently fragmented carbon finance markets.

Moreover, the carbon finance market is underdeveloped and fast developing. The “learning by doing” approaches may help to shape the international regulatory framework.³⁷

³⁵ Raymond J. Kopp, Greenhouse Gas Regulation in the United States, <http://www.rff.org/RFF/Documents/RFF-DP-07-16.pdf>, at p. 7.

³⁶ Ibid.

³⁷ World Bank, Carbon Finance for Sustainable Development 2008, at p. 73.

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