Green Credit, Green Stimulus, Green Revolution? China’s Mobilization of Banks for Environmental Cleanup

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Abstract
To tackle China’s profound environmental problems, Chinese leaders are now incorporating environmental targets in 5-year plans and experimenting with market-based mechanisms to supplement their traditional command and control mechanisms for environmental protection. In the recent years, China has produced a series of green policies, including green tax, green procurement, as well as green policies relevant to the financial sector, namely, green credit, insurance, and security policies. Of the three, the green credit policy is the most advanced, with three agencies (the Ministry of Environmental Protection, the Peoples’ Bank of China, and the China Banking Regulatory Commission) sharing the responsibility for implementation. The policy, approaching its fourth year of implementation, has proved resistant to China’s massive economic upheaval following the global financial crisis. Its future success depends on effective environmental data collection and dissemination, technical guidance, and provision of true financial incentives for banks. The continued success in implementation could potentially provide China with the experience and confidence to address new challenges, such as the environmental and social conduct of its enterprises overseas.

Keywords
environmental protection, sustainable banking, energy efficiency, market-based mechanism, China

Introduction to Green Credit
“Crossing the river by feeling the stones:” Chinese officials are fond of quoting this mantra, attributed to Deuq Xiaoping. It captures, symbolizes the cautious, step-by-step

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Note by the Editor: this contribution was accepted as a policy review article without being subjected to an anonymous external peer review. It has undergone some revisions based on internal editorial suggestions.
approach Chinese regulators and enforcers prefer, especially when confronted with foreign pressure to modernize their traditional ways and leapfrog to the forefront of the 21st century. Realizing that the dire state of their natural environment could harm their economic and social development (Economy, 2007; World Bank, 2007), and potentially pose a threat to China’s internal stability and international standing, China’s leaders recently set out on an unprecedented journey to speed China across the river. They have adopted a multifaceted approach, combining environmental and economic policies, to combat pollution and national resource and energy consumption. As part of these measures, China announced its Green Credit Policy in 2007 (Ministry of Environmental Protection [HEP], China Banking Regulatory Commission [CBRC], and Peoples’ Bank of China [PBOC] et al., 2007), calling on Chinese banks to withhold credit to enterprises that belch pollutants or devour energy and natural resources, and to extend credit to green projects on preferential terms.

Promotion of green credit as a quasiregulatory tool is not new. Many nations, including developing countries, such as India and Brazil (Taylor, et. al. 2008), use them to promote environmentally beneficial financing at subsidized rates, often using public financial agencies as conduits. The concept of green credit resembles that of sustainable finance in that both concepts highlight the potential of the financial sector to respond to environmental and social challenges of the world through financial instruments. Although sustainable finance, as practiced in the international financial community, tends to be implemented on a voluntary basis, however, green credit in China is a creation of the government with a distinct Chinese character: The Green Credit Policy directs both state-owned and joint-stock banks to help China achieve its national environmental and energy and resource consumption objectives through provision or withholding of credit provided or not. Despite these command and control flavor of the policy, those charged with the responsibility for implementing the policy are becoming increasingly aware that success lies in data collection and dissemination, technical guidance to banks, coupled with distinct financial incentives. Approaching its fourth year of implementation, China’s Green Credit Policy appears to have withstood the massive economic upheaval following the global recession and continues to demonstrate traction.

China’s Economic Policies and Environmental Protection

Through macroeconomic reform and liberalization, China’s economy grew at an annual rate of about 10% over the past three decades. China’s total GDP rose from 15th in the world in 1978 to 3rd in 2009. GDP per capita increased from US$190 in 1978 to US$2,360 in 2008, with an average annual increase rate of 9.1% (National Statistics Bureau of China [NSBC], 2008). This astonishing growth boosted China’s economic might and lifted the quality of life of ordinary Chinese people. However, the consequent population growth, rapid urbanization, and increase in consumption rates place tremendous pressure on China’s resources and the natural environment. China’s economic growth so far has depended on high resource use, which has resulted in large environmental costs.
Nearly 40% of Chinese cities fail to meet or barely meet the country’s minimum air quality requirements. Dust haze and particulates pose serious problems in these cities. The hazard of acid rain continues to worsen and imposes problems not only in China but also in neighboring states. In 2008, of all 409 monitored river sections, 20.8% fell below the Grade V standard (unsafe for any use). Of 28 major monitored lakes and reservoirs, 39.3% fell below Grade V standards (Ministry of Environmental Protection [MEP], 2009c). Soil pollution cannot be ignored either. According to the 2006 survey by MEP and Ministry of Land and Resources, about 150 million Chinese acres of agricultural land were polluted, and about 2 million Chinese acres were occupied or destroyed by solid wastes, which amounted to about 10% of the total farmland in the country. Heavy metal pollution contaminated about 12 million tons of crops annually, and the estimated loss was at least 20 billion Yuan (US$2.9 billion; MEP, 2007c).

The interactions among numerous pollutants complicate the monitoring and cleanup process in China. In some areas, multiple adjacent polluting sources simultaneously emit various pollutants. In some cases, pollutants affect water, air, and soil simultaneously. When different pollutants mix together, they might cause physical, chemical, or biological reactions and generate new pollutants that are even more toxic. In other words, the accumulation and concentration of different pollutants in one area accelerates the environmental problems. Moreover, pollution is spreading from urban to rural areas, from developed, densely populated regions to developing regions, and from confined locations to bigger fields and drainage basins.

Although various partial mitigation and improvement measures show success in curbing pollution and its ecological impacts, the overall downward trend of ecological degradation continues to accelerate (MEP, 2009c). Biological resources are in danger, the ecological system is increasingly fragile, ecological services are continually deteriorating, ecological hazard is worsening, and ecological challenges are compounded and becoming more complex. In 2005, there were about 300 million hectares of natural grassland in northern China. By 2008, 53.6% of those areas had turned into desert, with a degradation rate of 2 million hectares per year (MEP, 2008d). The number of endangered species in China has increased rapidly. By 2007, 4,000 to 5,000 species of vascular plants, or about 15% to 20% of China’s total vascular plant species, were considered to be endangered, which was far higher than the world’s average (GeoEnvironment, 2007).

With China’s rapid economic development comes massive energy consumption. Main issues include high energy consumption, unsustainable energy supply structure, and unsustainable consumption structure. In 2007, China was the second largest energy producer and consumer in the world, just after the United States (China State Council, 2007a). In 2006, its primary energy consumption was equivalent to 2.2 billion tons standard coal. With such a high consumption rate, China needs a rational structure to ensure efficient and clean energy supply. However, in 2006, about 70% of its primary energy supply was from coal and 22% was from oil, both significant sources of sulfur- and carbon-based pollutants. China’s energy consumption pattern has much room for improvement. In 2006, the industrial sector alone consumed
70% of the country’s total energy, whereas the residential, commercial, and transportation sectors each consumed about 10%. This pattern differs sharply from the energy consumption pattern in developed countries, in which the residential, commercial, and transportation sectors have higher consumption rates (NSBC, 2007). The disproportionately high energy consumption by the industrial sector also causes heavy pollution. In 2006, the national sulfur dioxide emission was 25.9 million tons, 86.4% of which was produced by the industrial sector; the total dust emission was 10.9 million tons, about 79.5% from the industrial sector (MEP, 2007d).

China’s top leaders now accept that China will not realize its economic and social development ambitions without addressing its pollution and its resource and energy use. They also foresee that these issues can threaten the country’s domestic security and its standing in the region and the world. In other words, pollution and resource-use challenges have been transformed into economic, social, and political agendas to be addressed by the nation itself.

The Chinese government has embarked on a new path of overall socioeconomic development with a scientific outlook on development, acceleration of the development of an energy-efficient and environmentally friendly society, and facilitation of a harmonious relationship between people and nature. China’s economic and social development plan for the 11th Five-Year Plan period (2006-2010) includes environmental protection as one of its key objectives. One of the most influential measures is the development of a Comprehensive Working Plan for Energy Conservation and Emission Reduction for the 11th Five-Year Plan period. This working plan identifies the objectives and tasks, and establishes targets for energy conservation and emission reduction (National Development and Reform Commission [NDRC], 2007).

In December 2007, the State Council followed suit by issuing “China’s White Paper on Energy Situation and Policy.” It lays out the country’s basic energy situation and emphasizes energy conservation and environmental protection, including improving energy efficiency, reducing the proportion of coal in the energy supply structure and increasing the utility of renewable energy, and installing environmental treatment in coal-burning facilities (China State Council, 2007a).

More generally, in October 2007, at the 17th National Congress of the Communist Party of China, General Secretary Hu Jintao announced the “new requirements for achieving the goal of developing a well-rounded well-off society.” In his report, he identified the objectives of “enhancing the balance of development, and trying best to realize sound and fast economic development.” For the first time, “environmental protection” became the precondition for “quadrupling the per capita GDP from 2000 to 2020” (National Congress of Communist Party [NCCP], 2007). To further support the national environmental protection agenda, in March 2008, the State Environmental Protection Agency was upgraded to full ministerial standing and was renamed the MEP.

**Emergence of China’s Environmental Economic Policies**

Although some pollution reduction and resource conservation targets in the 11th Five-Year Plan have been met, meeting the overall environmental objectives in the plan by
2010 appeared daunting or even improbable to many in the state government. Given the current environmental challenges, the MEP was well aware that the 11th five-year goals could not be realized by simply expending more effort in implementing the traditional command and control measures. Policy innovation was imperative. As a result, the Chinese government, and particularly MEP, began to resort increasingly to environmental economic policies to promote emission reduction and energy conservation.

During the Sixth National Environment Protection Conference in 2006, Prime Minister Wen Jiabao declared that China would adopt a comprehensive approach to environmental protection that includes legal, economic, and technical measures, in addition to administrative methods that had been the backbone of Chinese environmental protection so far. The 2007 report of the 17th National Congress of the Communist Party of China remarked that China should continue its path of financial, tax, and fiscal system reforms and integrate environmental protection into the fiscal system reform to realize the ultimate goal of sustainable development. In 2007, the State Council issued the Comprehensive Working Plan for Energy Conservation and Emission Reduction, spelling out a variety of economic environmental policy measures (China State Council, 2007b). MEP also took the initiative to cooperate with economic authorities, including the PBOC (2007; MEP & PBOC, 2008), Ministry of Finance (MEP & Ministry of Finance, 2006), and CBRC (2007), to launch a series of environmental economic policies that complement and support each other. They are briefly outlined below.

**Environmental tax.** MEP, the Ministry of Finance, and State Administration of Taxation, with the support of the relevant special committees of National People’s Congress, are exploring the feasibility and operability of a new environmental tax system that adds an environmental component to existing taxes, as part of the overall economic system reform. The goal of this policy is to charge environmental taxes based on different industries, products, and pollution levels. Though discussed during the 2010 National People’s Congress Conference and National Committee of the Chinese People’s Political Consultative Conference, this policy is still work in progress (He, Han, & An, 2010).

**Ecological compensation mechanism.** In 2007, MEP issued Guidelines on Developing Ecological Compensation Pilot Projects (MEP, 2007b). This document proposed concepts on compensation mechanisms for (a) natural reserves, (b) important ecological service areas, (c) mineral resource development, and (d) watershed areas. For the first time, China has a compensation plan that is based on the water quality and quantity data from monitoring stations set up in its river systems. The policy also explores diversified ecological compensation methods and models. Zhejiang, Fujian, and Jiangxi provinces have launched ecological compensation pilot programs for the relevant drainage basins, and in Jiangsu and Hebei provinces, the provincial governments can sue the polluters for regional environmental resource compensation (Wan & Zhou, 2008).

**Green trade.** Due to China’s strong emphasis on production for exports and the consequent domestic and overseas environmental impacts, the need to mitigate the environmental impacts of trade has attracted much attention. In 2007, MEP and the Ministry
of Commerce jointly issued the Notice on Enhancing the Environmental Monitoring over Export Enterprises (MEP & Ministry of Commerce, 2007). Under the notice, exporting enterprises that fail to comply with Chinese environmental laws will be suspended from their domestic operation and foreign trade practice for 1 to 3 years. A catalogue of products with high pollution and high environmental risk has been compiled to provide a reference point for the government to develop export rebates and revise trade policies. In addition, MEP together with the Ministry of Commerce is investigating into exports of scarce resources and products with high environmental cost.

**Green government procurement.** To demonstrate tangible support for the environmental economic policies, in October 2006, MEP and the Ministry of Finance jointly issued Notice on Adjustment of Government Procurement of Products with Environmental Labels and a list of products with environment labels (MEP & Ministry of Finance, 2006). Effective on January 1, 2007, central and provincial government departments must comply with the procurement requirements, and starting on January 1, 2008, governments at all levels are regulated by this policy.

Similarly, Chinese local governments have made progress in promoting green procurement, and some departments have developed pilot projects (MEP, 2006a). For example, the Beijing Olympic Committee set environmental requirements for each category of procurement and gave priority to the purchase of products with environmentally friendly labels (MEP, 2006b). Meanwhile, some local governments have enacted or are working on publishing local government procurement policies (MEP, 2006a).

**Green insurance.** Prompted by a series of serious polluting incidents in recent years, the concept of liability insurance has gained rapid support. In 2007, MEP and China Insurance Regulatory Commission (MEP & CIRC, 2007) jointly issued Guidelines on Environmental Pollution Liability Insurance, setting up pilot programs for enterprises that produce, use, store, transport, or dispose of hazardous chemicals and for specific sectors such as the petrochemical industry. In October 2008, for the first time in China, environmental damage was compensated for by environmental pollution liability insurance, when China Ping An Insurance Company paid farmers in the Zhuzhou City in Hunan Province for damage caused by hydrogen chloride leaks. The insurance company paid 110,000 Yuan (US$16117.2) to the local farmers whose farmland was contaminated by the leaks (MEP, 2009a).

**Green securities.** Recognizing the recent trend for enterprises to access capital markets for financing, the China Securities Regulatory Commission (CSRC, 2008) issued the Notice on IPO Application for Manufacture Companies in Highly Polluting Industries, followed by MEP’s (2008a) launch of the Guidelines on Enhancing the Supervision and Management of Environmental Protection for Listed Companies (MEP’s guidelines). These two documents impose a mandatory requirement on highly polluting industries to obtain MEP’s approval of their environmental performance if they wish to launch an initial public offering (IPO). This requirement applies to (a) any company from the thermal power, steel, cement, and electrolytic aluminum sectors and (b) any company with cross-provincial operation in metallurgy, chemical,
oil refinery, coal, thermal power plant, building material, pulp and paper, zymurgy, pharmaceutical, fermentation, textile, leather, and mining. CSRC will not review any IPO application from these sectors without proper environmental performance approval from MEP (CSRC, 2008). The MEP’s guidelines also impose mandatory environmental disclosure obligations on companies that are already publicly listed as well as those seeking to be listed. Procedure and liability of this disclosure are regulated by the Managing Rules on Information Disclosure by Listed Companies (CSRC, 2007). During 2008, MEP has accepted the application for environmental performance review from 73 listed companies and completed the environmental performance review of 38 companies. Of these 38 companies, 20 failed to pass the first review and were prohibited from launching their IPOs. It is estimated that a total value of tens of billions of Yuan was affected by such a review (MEP, 2008c).

Green credit. Preceding the issuance of documents related to green insurance and green securities, in July 2007, MEP, jointly with PBOC and CBRC, issued the Opinions on Implementing Environmental Protection Policies and Rules and Preventing Credit Risks (MEP et al., 2007). This event formally launched China’s Green Credit Policy, which is perhaps the best known and best developed in the series of environmental economic policies listed above. Its purpose is to guide loan financing away from highly polluting and high energy-consuming enterprises and projects and toward enterprises and organizations favoring energy conservation and emission reduction.

The Green Credit Policy has three main components: (a) strengthening commercial banks’ management of environmental performance, (b) environmental information sharing between the environmental authority and financial sector, and (c) responsibilities for violation of the policy.

First, financial institutions are called on to take into consideration borrowers’ environmental performance and the national industry policy when extending credit. For new projects, banks should not grant credits to those that fail environmental impact assessments and inspections required by the Environmental Impact Assessment Act (People’s Congress, 2002) or that are energy intensive or highly polluting and should instead support projects that demonstrate energy efficiency and emission reduction. When providing working capital to existing enterprises, banks should restrict loans to enterprises in violation of environmental law or those that are energy intensive and highly polluting. If the projects supported by the banks are designated to be phased out by the national industry policy, all new credit support must be discontinued and existing credit must be cancelled.

Second, environmental information sharing between environmental authority and the financial sector is to be strengthened. Local Environmental Protection Bureaus (EPBs) should provide in a timely manner corporate environmental information to the financial sector, including a list of environmental violators. PBOC should work with EPBs to assist banks to integrate environmental information into the existing credit record system. CBRC should supervise banks’ practice. Banks should restrict loans to environmental violators and adjust their credit management according to the environ-
The mental information provided by EPBs. Furthermore, all these entities should form a mechanism for regular communication and training.

Third, liability can be imposed on staff and entities for violation of this policy. Administrative punishment will be imposed on EPBs’ staff if they violate any laws or disciplines during implementation according to the Temporary Rules on Sanctions of Behaviors Violating Environmental Protection Laws and Regulations (MEP & Ministry of Supervision, 2006). Sanctions will also be imposed on commercial banks if they grant loans to projects with environmental violations or violation of this policy. Furthermore, if these loans cause serious losses, the staff in charge will be held responsible.

China’s banking sector provides a significant proportion of the total capital available to industries. It is reported that as much as 80% of capital comes from banks (Liu, 2008). CBRC’s data indicate that the total credit made available to industries between January and June 2007 increased by 2.54 trillion Yuan (US$372.2 billion), of which 1.70 trillion (US$249.1 billion) was mid- to long-term credit, directed to industries with high pollution, high energy consumption, and intensive resource use, such as steel and iron, cement, power, coal, and petrochemical industries. About 1.5 trillion Yuan (US$219.8 billion) of these loans went to sectors subject to policy control, accounting for about 60% of loan increase. In 2008, the Chinese government set a target to provide 4 trillion Yuan (US$586.1 billion) to stimulate the economy, of which about 75%, or 3 trillion Yuan (US$439.6 billion), would come from bank loans (Hexun News, 2000; NDRC, 2009). Such data indicate that China’s banking sector can potentially be enlisted to help the state realize its industrial policies and contribute toward energy conservation and emission reduction.

The Green Credit Policy not only responds to China’s demand for curbing pollution and energy consumption but also appeals to the natural instinct of banks to minimize risks from lending to enterprises that do not obey environmental regulations or cause catastrophic incidents and to maximize profit from lending. The policy’s message is also reinforced in terms of corporate social responsibility in the Chinese context: It is the banking sector’s responsibility to push forward energy conservation and emission reduction through green credit, as part of its corporate social responsibility (China Banking Association, 2009a).

The launch of the Green Credit Policy was met with widespread welcome and support from the central government, the Chinese banking sector, the provincial authorities, and China’s emerging civil society. This is in marked contrast with China’s first-generation green credit policy, the Notice on Implementing Credit Policies and Enhancing Environmental Protection, announced in 1995 (PBOC, 1995). It required financial authorities at different levels to pay attention to natural resource and environmental protection in credit. However, this attempt did not move into the implementation phase because economic growth at any cost was the top priority at the time and because there was insufficient collaboration among relevant government agencies. The 2007 initiative incorporates these lessons from the past. The initiative has also to incorporate the experience of the international community.
Green Credit: Experience of the International Community

Green Credit and Sustainable Finance in the International Context

Media coverage on green credit or sustainable finance goes back to the early 1990s and describes initiatives that differ in scope, content, and audience across the world. Among these, the Statement by Banks on the Environment and Sustainable Development (United Nations Environmental Program [UNEP], 1992) issued by the United Nation’s Conference on the Environment and Development in 1992 is one of the first of its kind.

Another movement in sustainable finance relates to the policies and procedures used by specialized financial institutions when carrying out their environmental due diligence, centered on the process of environmental impact assessment. The World Bank and many other multilateral, regional and bilateral financial institutions have their own policies that articulate how environmental and social issues are taken into account in their lending to public and private sector projects. More recently, International Finance Corporation (IFC), the private sector arm of the World Bank Group, created its Performance Standards on Social and Environmental Sustainability (the Performance Standards) in 2006 for its lending and equity investment activities in private sector projects in emerging markets (IFC, 2009b).

Countries also promote green credit. In the case of Brazil, for example, Protocol Verde, or the Green Protocol, first announced in 1995 and reissued in 2008 (Brazil Development Bank, 2008), requires state-owned and private banks to play their role in environmental protection. Green credit has its advocates in the private sector too. The voluntary industry initiative for project finance introduced in 2003 and known as the Equator Principles states, among other things, that adhering banks will only provide project finance loans to projects that have conducted satisfactory social and environmental assessments. Moreover, banks in developed and developing markets are becoming increasingly interested in financing energy-efficiency and renewable-energy projects, and to become involved in carbon financing, in a concerted effort to address climate change and make profits, a win-win scenario.

The Emergence and Impact of the Equator Principles

In the last decade, the sustainability pathway of financial institutions was strongly influenced by a new movement that seized the private sector: corporate social responsibility.7 Not one major segment of the market economy was untouched by this voluntary approach—through extension of charitable activities and, in some cases, application of core business skills and competencies—to addressing environmental, social, or governance dimensions that are mostly unregulated by governments. In the financial sector, the Equator Principles is one of the best-known examples of such voluntary initiatives.

First announced in June of 2003 by 10 banks, the Principles created a management framework to address environmental and social risks in project finance, by
incorporating the IFC and World Bank Group policies and guidelines. As of April 2010, the total number of Equator Principles Financial Institutions (EPFIs) stands at 67, 17 of which are from emerging markets, including one bank from China (The Equator Principles, 2010).

Even though the initial impetus of the Principles was the pressing need to counter nongovernmental organization (NGO) criticism on controversial projects, most of the first-generation EPFIs from developed countries cite broader benefits from their adoption of the Principles. They credit the Principles with creating an internal and external engagement platform to help in their dealings with colleagues and management, with clients and other banks, and with external stakeholders, including but by no means limited to NGOs. These EPFIs agree that the Principles necessitate a systematic approach to management of environmental and social issues, which helps with their risk management, particularly their reputational risk. With regard to their business dealings, they observe that the Principles relieve the need to compete with other banks by lowering environmental and social standards as a way to gain clients. A level-playing field for EPFIs means closer collaboration in syndications: The banks say that the Principles enable them to present to their clients consistent requirements on their environmental and social due diligence and that they can realize efficiency gains from sharing the due diligence burden, particularly in large projects. Going beyond their core business relationships in project finance, the Equator Principles influence the way in which the banks pursue their sustainability agenda with their business associates, stakeholders, and shareholders. Some have launched green financial products, such as green credit cards, and greenhouse gas offset services; others have entered the business of microcredit, microinsurance, and community or low-income banking. It is clear that banks recognize tangible and intangible benefits to their risks, returns, and reputation from being a part of this voluntary movement.

The EPFIs manage their own affairs through a secretariat and a governance structure comprised of a steering group and working groups. IFC’s role is not one of enforcer of the Principles but that of a knowledge institution, sharing policy interpretation, good practice, and lessons learned through its Community of Learning, a learning network for the Equator banks and other public or development financial institutions interested in applying the Performance Standards and Guidelines to their business (IFC, 2009a).

IFC also takes the lead in promoting its sustainability policy framework that includes the Performance Standards and the Environmental, Health and Safety Guidelines—the building blocks of the Principles. After IFC adopted its Performance Standards, it collaborated with other public and development financial institutions interested in achieving Equator Principles equivalence, such as the 32 export credit agencies in the Organisation for Economic Co-operation and Development (OECD) countries and the European Development Financial Institutions. Within the World Bank Group, the Multilateral Insurance Guarantee Agency, or MIGA, adopted the Performance Standards in August 2007. In effect, IFC’s outreach to these institutions created an environmental and social standards landscape that is much more level and convergent than it was a few years ago.
Although the Equator banks take on their own outreach and communication on the Principles, IFC and EPFIs coordinate closely on outreach activities in the emerging markets. In late 2006, IFC outlined its outreach activities directed to Brazil, Russia, India, and China. The Chinese banking sector, which provided approximately 80% of the capital to both state-owned and domestic private enterprises (Liu, 2008), offered a great appeal to IFC and EPFI outreach teams. Starting in about 2006, several EPFIs with commercial interest in China began to visit the country in an effort to persuade Chinese banks to adopt the Equator Principles. These EPFIs also called on MEP to introduce and emphasize the importance of the Principles.

Setting Up for Success: Implementation, Responsibilities, and Resources

Equipped with lessons learned from the first-generation green credit policy, and buoyed by the national environmental agenda and its rise to a full ministerial status, MEP set out to create a solid implementation platform for the policy. MEP worked closely with the other two responsible agencies, PBOC and CBRC, and their efforts were met with enthusiasm from the international community, including IFC and the EPFIs (IFC, 2008).

Three Responsible Agencies

In contrast to the earlier green credit policy, the three responsible agencies have taken on formal individual responsibilities, complemented by formal and informal inter-agency collaboration.

**PBOC.** PBOC’s main task is to improve the enterprise credit report system and develop other financial information infrastructure. Incorporation of the enterprise environmental performance information, especially noncompliance information, into the enterprise credit report system is the first step toward helping banks make credit decisions based on environmental factors. The central bank is expected to guide financial organizations on the use of environmental information in the enterprise credit report. Furthermore, PBOC is expected to take a lead role in engineering innovative financial products, including those that are directed toward environmental protection enterprises.

**MEP.** MEP’s primary responsibility is to establish a dynamic information system that will enhance the transmission of environmental performance information to environmental protection authorities at different levels of the government. To this end, MEP collects, processes, distributes, and updates information on enterprises’ environmental performance. It is the responsibility of local EPBs to periodically update PBOC with companies’ environmental violation information. PBOC in turn makes the information accessible to all financial institutions by updating its credit report system. MEP is also responsible for training bank personnel on environmental protection policies and regulations. Finally, MEP is planning to put in place industry-specific green credit
technical guidelines, thereby providing further encouragement to banks to implement the Green Credit Policy.

**CBRC.** CBRC’s first responsibility under the policy is to guide and supervise banking organizations so that they regard environmental compliance by enterprises and individuals as an independent condition for credit review and handling of loans. CBRC has strengthened its relevant review processes, approval standards, and internal oversight for the policy. Banks’ performance in environmental-protection-credit implementation is to be integrated into the scope of CBRC’s regulation and supervision, and investigations are conducted to identify nonperforming loans caused by environmental noncompliance of enterprises or individuals. CBRC’s 2007 Guidelines on Credit Granting for Energy Conservation and Emission Reduction encourages banks to restrict loans to energy-consuming and polluting industries and promote loans for energy-efficient and environmental-friendly industries (CBRC, 2007). Although this document provides guidance only and is not mandatory, CBRC’s influence on Chinese banks is such that banks have started to accept their roles and responsibilities in environmental protection (China Banking Association, 2009a). CBRC is also expected to help build the banking sector’s capacity; for example, it supports the establishment of special environmental risk assessment organizations to help with banks’ risk assessment and encourages professional training for bankers.

**Interagency Collaboration**

In addition to these individual responsibilities, the three agencies are also taking steps to complement and enhance their individual roles and responsibilities through close collaboration. Initially, they carried out formal policy consultation and research to further improve the concept of green credit. In 2007, these agencies individually and collectively issued a series of policy documents, including Guidelines on Improving and Enhancing Financial Service for Energy Conservation and Environmental Protection, by PBOC (2007); Opinions on Implementing Environmental Protection Policies and Rules and Preventing Credit Risks, by MEP, CBRC, and PBOC (Ministry of China’s Environment et al., 2007); and Guidelines on Credit-Granting for Energy Conservation and Emission Reduction, issued by CBRC (2007). MEP also signed partnership agreements with PBOC to integrate environmental protection information into bank credit system.

To deepen functional relationships among agencies and assist the Green Credit Policy implementation regulation design, IFC facilitated two study tours for leaders at MEP, CBRC, PBOC, and major Chinese banks who were interested in learning about the Equator Principles and the Performance Standards. These study visits in June 2008 and May 2009 exposed the delegation to views and recommendations from experts in the World Bank Group, think tanks, consulting firms, NGOs, the U.S. Treasury, and the U.S. Environmental Protection Agency. Traveling together for a week, the delegation members not only gained information and knowledge but also forged strong professional and personal relationships.
Progress to Date

To ensure sound implementation of the policy, the three responsible agencies directed their efforts to multiple areas, and the agencies have achieved their objectives in the following areas.

Data Accessibility Through Information Exchange Mechanisms

Timely and accurate information sharing among the responsible agencies is crucial for implementation of the Green Credit Policy. To this end, MEP and PBOC are collaborating to include enterprises’ environmental performance information in PBOC’s Credit Report System, which provides comprehensive information service to banks (MEP & PBOC, 2008).

Furthermore, in March 2008, PBOC and MEP jointly issued the Notice on Standardizing the Provision of Enterprises’ Environmental Information to PBOP’s Credit Report System, giving specific guidance and templates for the local EPBs to update the credit report system (MEP & PBOC, 2008). Although the jointly issued notice does not require the EPBs to coordinate with local PBOC branches, some began to establish partnership by issuing local environmental information sharing notices, such as Fujian’s Notice on Implementing Green Credit Policy and Including Enterprises’ and Individuals’ Environmental Information Into PBOC’s Credit Report System (Fujian Government, 2008).

As of early 2009, more than 40,000 information entries on environmental protection are included in the PBOC’s credit report system (MEP, 2009b). Based on the environmental information available in the system, some commercial banks have restricted or retracted their loans to certain enterprises.

Collaboration With the Media and Emerging Transparency

The Chinese media are taking an increasingly active role in information dissemination and as a public watchdog. In recognition of the new role of the media, MEP has sought to enlist the media to help communicate the purpose and importance of the Green Credit Policy. Today, the media acts as the official outlet for the enterprise environmental performance information. They also publish the names of blacklisted enterprises, stories critical of noncompliant enterprises, and policy implementation updates (MEP, 2008b). Banks in turn are coming forth with disclosures of their own, on their Web sites and through newspaper stories.

It is possible that MEP’s strategy to engage the full potential of the media is a contributing factor to the positive response to the Green Credit Policy from the key stakeholder groups, such as the local and provincial governments, the banks themselves, and society as a whole.
Active Participation by Provincial and Local Governments

Initial criticisms of the Green Credit Policy included an observation that the policy will be powerless unless active measures are taken to promote and enforce it at provincial and local levels, since much of China’s current pollution challenges are attributed to the acquiescence and collusion of provincial and local governments. In an effort to put such concerns to rest, MEP, CBRC, and PBOC took steps to cooperate with cities and provinces to issue implementation rules. It is estimated that more than 20 provinces and cities have developed local policies to specify the implementation procedures and rules of the Green Credit Policy (MEP, 2008b). In addition, several provinces have reported that they are cutting back loans to enterprises that failed to meet environmental protection standards.

Active Response From the Financial Sector

With the central, provincial, and local governments moving forward in lockstep, and under the close scrutiny of the media, the banking sector had no choice but to present a positive response to the Green Credit Policy. Various large state-owned banks as well as joint stock banks are reported to be actively studying, developing, and implementing measures for Green Credit Policy implementation. From the various data available, activities seem to focus on three areas: internal systems; data collection, particularly data on loans withheld or called back; and granting of green credit to energy efficiency and other green projects, such as municipal water.

Several banks have announced that they have put into place internal systems, policies, procedures, databases, or tools to manage their policy implementation. For example, the Industrial & Commercial Bank of China (ICBC) reported that it established a database of clients’ environmental risks. By February 2008, information on 47,000 of its 60,000 clients had been documented in the system. At ICBC, environmental violation is a sufficient reason to deny loan applications. The bank also labels its borrowers on their environmental performance on a nine-category system (MEP, 2008b).

The Bank of Communication (Bank of Communication, 2009) also announced that it established three large categories (red, yellow, and green) and seven small categories based on the environmental impact of the clients and projects. In addition, the bank uses external assessment information as key reference. It is also reported that the bank upgraded its credit management system and now monitors in real time the environmental protection information of all its borrowers.

Banks have reduced credits from highly polluting and high energy-consuming projects. For example, in 2008, ICBC (China Banking Association, 2009a) curtailed 16.2 billion Yuan (US$2.4 billion) and China Construction Bank (China Construction Bank, 2009) 64.4 billion Yuan (US$9.4 billion) worth of lending in these sectors.

Banks have also increased investments in energy saving and environmental protection projects. In 2008, ICBC alone issued 49.2 billion Yuan (US$7.2 billion) loans to energy saving and environmental protection projects, a 69.2% increase compared to
the 2007 level (ICBC, 2009). According to the 2008 Social Responsibility Report of China’s Banking Sector, in 2007, the 53 banks that provided statistics to China Banking Association invested 341.1 billion Yuan (US$50 billion) in total, or 2.7% of the banks’ total loans, in 2,715 energy-saving and environmental protection projects; in 2008, this investment increased to 371 billion Yuan (US$54.4 billion), or 3.11% of total loans, supporting 2,983 projects (China Banking Association, 2009a).

Among the banks actively engaged in the implementation of the Green Credit Policy is the Industrial Bank (IB), a joint stock bank headquartered in Fuzhou, Fujian Province. In October 2008, IB announced its adoption of the Equator Principles, thereby becoming the first Chinese Equator Principles Financial Institution. This announcement was a culmination of IB’s unique sustainability pathway, which started with its decision in 2006 to become IFC’s first partner bank in China to finance energy-efficiency projects.9 By the end of 2008, IB had granted 86 loans for energy conservation and emission reduction, totaling 3.3 billion Yuan (US$ 483.5 million) and covering 22 provinces in China. Every year, these projects combined would reduce coal consumption by 3.2 million tons and carbon dioxide emissions by 13.7 million tons (IB, 2009).

After adopting the Equator Principles in October 2008, IB has been focusing on building its environmental and social management system and a dedicated Sustainable Development Unit to implement the Equator Principles. This unit has developed internal environmental and social policy and procedures and is in the process of integrating environmental and social considerations into its credit review process. IB is also training staff from senior management to credit officers, and it is reaching out to educate clients about IB’s environmental and social requirements (IB, 2009).

Other nonbank actors in the banking sector also are doing their part to promote the policy. For example, in January 2009, the China Banking Association (China Banking Association, 2009b) issued the Guidelines on Corporate Social Responsibility for Banking Financial Institutions in China. The guidelines require financial institutions to fulfill their corporate responsibilities in economic, social, and environmental areas and to release corporate social responsibility reports regularly. The guidelines also encourage financial institutions to study the Equator Principles.

**Partnership With the International Community**

After China’s announcement of the Green Credit Policy in July 2007, IFC approached the Department of Policy and Law of MEP responsible for implementation of the policy. Following the meeting of MEP and IFC delegation in September 2007, both parties agreed in principle that they should work together to help deepen MEP’s understanding of the Equator Principles, the IFC Performance Standards, and the Environmental, Health, and Safety (EHS) Guidelines. The discussion led to the idea of a cooperation agreement that would enable the parties to jointly study these documents, and translate into Chinese the EHS guidelines. The guidelines cover 63 industry sectors, including sectors of interest to MEP, such as oil refinery, building materials, and steel. Efforts under the MEP-IFC Cooperation Agreement resulted in a joint
The publication of a handbook, The International Experience in Promoting Green Credit: Equator Principles and IFC Performance Standards and Guideline, in November 2008 (IFC & MEP, 2008). MEP is now in the process of commissioning an in-depth analysis of select sectors through partnership with donor agencies and expert NGOs.

To build on the successful first step, in March 2009, MEP and IFC signed a Memorandum of Understanding to deepen the cooperation in four areas: (a) jointly develop policy and operational guidance notes that inform Chinese banks and enterprises about environmental compliance, and assist them in implementing the Green Credit Policy; (b) build capacity of MEP staff in the areas of the Equator Principles, IFC Performance Standards, and the EHS guidelines; (c) assist MEP in its monitoring and evaluation of the implementation performance and effectiveness of the Green Credit Policy; and (d) expand the collaboration of IFC and MEP to support China’s Green Securities Policy.

In parallel with the work on guidelines, a series of awareness-raising and training events were organized in China, involving the three responsible agencies, international experts, and the EPFIs. In December 2007, PBOC organized a seminar titled “International Symposium on Sustainable Finance,” and in September 2008, CBRC, IFC, and the IB collaborated in a 3-day training program that included 68 banks and 36 banking regulators from the capital and the provinces. CBRC officials hosted the event and invited speakers from MEP, the NDRC, and others to share their perspectives. A similar session was organized again in March 2009 by CBRC and IFC.

China’s efforts to promote green credit among commercial banks piqued the curiosity of many, including one neighboring state. In August 2009, CBRC with IFC’s assistance hosted a study tour for the delegation of the Government of Vietnam, interested in adopting a green policy for its commercial banks. This may mark the beginning of a new south-south collaboration in the region, based on the Green Credit Policy.

The Challenges Ahead

Can China’s nascent Green Credit Policy gain traction in the Chinese banking sector? Can China move away from its tradition of command and control and create sufficient business incentives for banks to implement the policy and be agents of change? Can China’s leaders keep one eye on macroeconomic development and the other on green economic policies and navigate through the tides of recession and growth and their social consequences? China has no choice. After protracted experimentation with new economic mechanisms, and analyzing knowledge gained from past experiences and previous collaborative partnerships, China has finally begun to accelerate its reform. China’s move is crucial not only for its own economic and social development but also for global sustainable development. China’s early success in implementing its Green Credit Policy shows that China can speed across the river, without having to feel every stone.

China’s Central Economic Working Conference in December 2008 raised five key tasks for its economy in 2009. Within these, two tasks relate to green credit. One is to “implement proactive fiscal policy and moderately easy monetary policy,” and the
other is to “conduct economic structural adjustment.” Energy, water, land, raw material, resource conservation, and comprehensive use of resources are emphasized, and “projects for energy conservation, emission reduction, and ecological environmental protection” are identified as key projects (Wei, 2009).

The acute financial crisis that originated on Wall Street in the fall of 2008 quickly reached previously booming emerging economies seemingly impervious to any setbacks. The downturn affected China with greater speed and force than expected, prompting the state to announce a mix of policy measures in late 2008, including the 4 trillion Yuan stimulus package (NDRC, 2009). The renewed emphasis on domestic growth targets, again, raised the specter of frenzied resource and energy consumption, inefficiency and waste, and unchecked pollution. Despite the initial downward forecasts, the estimates indicated that China’s stimulus measures could amount to 15% to 17% of GDP in 2009, if government-induced bank lending is taken into account (Financial Times, 2009; World Bank, 2010). Against this backdrop, some Chinese officials spoke of a green stimulus plan that would include strong enforcement of environmental protection laws, mainstreaming of environmental considerations in banking decisions, and preferential credit for enterprises and technologies that contribute to the pollution-reduction and energy-efficiency agenda (Wei, 2009).

In fact, state media has reported that not a penny in the stimulus package was spent on projects within the energy-intensive, pollution-intensive, resources-intensive or overcapacity industries, and that 210 billion Yuan (US$25.5 billion or 5.25% of the package) was devoted to investment in environmental protection and energy conservation projects (China News, 2010; NDRC, 2009). China is also celebrating the 4.59% reduction in energy consumption per unit of GDP in 2008, or a 10.08% drop over the past 3 years, as well as reduction in chemical oxygen demand (COD), a main index of water pollution, and the total emission of sulfur dioxide, a major pollutant, down by 4.42% and 5.95%, respectively, in 2008—or down by 6.61% and 8.95%, respectively, over the past 3 years (Wang, 2010).

Such data show that the Green Credit Policy can fulfill its intended role in the new environment of stimulated growth and accelerated economic recovery, provided that it continues to be implemented with focus and vigor. In the coming months and years, the agencies responsible for implementation will have to keep a close eye on the following challenges.

Enhanced availability of information. The three agencies in charge of implementation of the Green Credit Policy have laid a foundation for ongoing information exchange to help banks make the necessary credit decisions. These agencies now face the challenge of updating and expanding the scope of available information. MEP and the provincial environmental protection agencies will have to continually assess enterprises for compliance with environmental laws. Clarity and transparency in the information-release procedures will improve predictability. For example, some of the enterprises listed on the MEP’s blacklist do take remedial action to bring their operations into compliance, but it is not clear how they can become delisted from the blacklist. Banks also need guidance to use available historical and current information in their decision making.
As commercial banks do not readily share information among each other, guidance from CBRC would be necessary.

**Guidelines and tools for implementation.** At this time, available technical implementation guidelines and tools are insufficient to fully back up the banks’ implementation of the Green Credit Policy. Each bank is left to define its own energy efficiency and green project criteria, and develop its own credit risk rating system, environmental performance assessment methodologies, and internal manuals and training programs. Regulatory guidance in these areas, together with standards on energy efficiency, technical guidelines and tools, and dissemination of good practices and technical resources, will help accelerate implementation.

**Capacity building and partnerships.** China’s environmental protection agencies and the banking industry need to build sufficient capacity to implement the Green Credit Policy. Banks lack capacity to collect relevant environmental performance information, identify environmental risks, and translate risks into credit decisions. Although China has firms and experts who can help with technical due diligence, many are foreign owned, and the banking industry is not in the habit of paying for these services or passing these costs to borrowers.

Beginning in the fall of 2007, MEP, CBRC, and PBOC each sponsored large-scale training programs for agency staff and banks in Beijing and Fuzhou, in some cases drawing in experts from IFC, the Equator banks, and foreign consulting firms. These programs, together with training on the new implementation guidelines and tools, must be systematically delivered to banks around the country. It will be necessary to work with training institutes and experts to create training modules, train the trainers, and disseminate the curriculum.

**Clarifying the policy landscape.** When rolling out new policy initiatives, regulatory agencies must carefully select the mix of regulatory and guidance instruments and communication strategy to promote implementation. In China, the historical tendency for environmental protection has been to lean on command and control mechanisms, and to layer one policy instrument over another. Some observe the danger in this approach and stress the need for analyses of existing policies and laws that could weaken or even paralyze the new policy initiative. In the energy efficiency area, for example, it has been pointed out that the business tax imposed on banks might block banks from pushing more energy efficiency loans out of the door (Chandler & Gwin, 2004). The reforms in the fiscal policy domain clearly require close and ongoing coordination with the relevant economic agencies and cannot be achieved by the three agencies responsible for the Green Credit Policy alone. Nonetheless, a thorough analysis and removal of policy obstacles, if any, in parallel with the implementation measures suggested below will accelerate the desired policy outcomes of the Green Credit Policy.

**A different kind of risk taking and incentives.** After operating in a centrally planned economy for decades, and being accustomed to allocating financial resources to state-owned enterprises in accordance with national economic plans, Chinese banking sector today seems to struggle to modernize itself. The previous business model provided
no incentive for the discipline of a detailed analysis of all manners of risks, risk mitigation, loan pricing and structuring according to risks, and finally taking calculated risks. As a result, banks naturally felt little inclination to venture into an unfamiliar territory of green finance. Under the Green Credit Policy, banks are asked to exhibit a different behavior: to make its lending decisions based on ecological and energy and resource consumption considerations and lend more to energy efficiency projects and other green sectors at preferential rates.

Although it is the Chinese official position that banks already have ample opportunity to price loan products in accordance with risks, provided they stay within certain bands, and to innovate, it may be worthwhile for research institutes or professional bodies to carry out a comprehensive analysis of the current banking practices in China to design appropriate financial incentives for their changed behavior.

The Green Credit Policy, together with the series of environmental economics policies, is intended to appeal to market mechanisms to address mounting environmental problems in China, and yet the techniques used under the policy continue to have the traditional command and control flavor. All too often, aspects of lending restrictions are emphasized at the expense of the positive side of the policy that emphasizes green lending. The positive reputational value of being good corporate citizens, or even the built-in incentives in CBRC documents, such as speedier access to branch licenses for banks with good implementation track record, seem insufficient to create appropriate motivation for banks to improve their energy efficiency lending. China needs true financial incentives to scale up the flow of green credit. China could pursue a break in the high business tax on banks and exempt lending to desirable green sectors from the overall lending limits imposed by the state. Similar fiscal changes at the provincial and local levels could also create inducements.

**Enabling domestic environment.** Some banks point to the fact that numerous small polluters rely on private funds from relatives and friends to circumvent the reach of the policy. Although it may be impossible for China to close all loopholes, particularly those that enable small- and medium-sized enterprises to operate in gross violation of environmental laws, if other major market actors that are instrumental in funding China’s pollution and resource use can be relied on as allies in sustainable economic development, the banks will find their job easier. In this regard, successful implementation of the Green Securities Policy and the Green Insurance Policy, both under the leadership of MEP, can have positive effects on the Green Credit Policy.

Under the Green Securities Policy, enterprises will no longer be able to resort to the capital markets for fundraising to avoid the impact of the Green Credit Policy. New listing requirements on environmental disclosure can complement credit information on environmental performance in helping investors make investment decisions. MEP and IFC are discussing ways to accelerate the implementation of this policy, with the help of experts from around the world. Provided that the green insurance scheme is strengthened with the concept of environmental liability under Chinese law, its potential will become real and synergies with other green policies could be explored. For example, a bank could potentially require green insurance when lending to sectors
with high environmental risks as part of its lending condition. These policies also require MEP to develop a reliable and larger scale environmental performance information system to be shared with other relevant economic agencies and eventually with members of the public. This will improve MEP’s environmental information exchange mechanisms and could stimulate the establishment of local environmental consulting firms and expertise. MEP must attend to these immediate challenges in the area of green securities and insurance. The success of the trio of Green Credit, Securities, and Insurance Policies in turn is also dependent on the success of the other environmental economics policies, such as the green taxation plans.

China’s conduct abroad. Finally, the experience gained from administering the Green Credit Policy may create an opportunity for MEP, in partnership with other relevant ministries, to address the social and environmental conduct of Chinese enterprises overseas. Today, China is called to conduct its trade and foreign investments, particularly those directed to Africa, consistent with international codes of business conduct. The Green Credit Policy, which is in effect China’s experiment with the domestic application of the Equator Principles, may give China the impetus and confidence to take another step forward in the search for appropriate standards for China’s overseas trade and investments.

Acknowledgment

Ms. Aizawa and Mr. Yang wish to thank Dr. Dongfang Feng and Rong Zhang for their contributions to this article. The findings, interpretations, views, and conclusions expressed in this article are those of the authors and do not necessarily reflect those of IFC, the International Bank for Reconstruction and Development (the World Bank), the governments represented, or the Chinese Ministry of Environmental Protection.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

Notes

1. Chinese acre equals 666.7 m².
2. The exchange rate of US$1 = 6.825 Yuan is used throughout.
3. Peoples’ Bank of China or PBOC is China’s central bank. It has the authority to control monetary policy in mainland China. Directly under the State Council, it is empowered and required by law to maintain the stability of the national currency and money supply. It also controls interest rates and acts as a lender of last resort to the banking sector during times of financial crisis.
4. China Banking Regulatory Commission or CBRC is an independent agency authorized by the State Council to regulate the country’s banking sector. It is responsible for formulating
supervisory rules and regulations governing the banking institutions, conducting on-site examination and off-site surveillance of the banking institutions and taking enforcement actions against rule-breaking behaviors, and administering the supervisory boards of the major banks.

5. According to the Ministry of Environmental Protection’s (MEP, 2007d) guidelines, companies are required to conduct environmental disclosure in the following situations: (a) The government issues a new environmental law, regulation, and industrial policy that might affect the companies’ stock value or products’ value; (b) the company receives inspection, administrative sanction, or criminal sanction due to its environmental violation; (c) the company has a new investment or construction project with significant environmental impacts; (d) the company is required by the government to suspend, relocate, or close due to its environmental performance; (e) the company’s property is detained or frozen due to environmental conflict or litigation; and (f) other situations in which environmental information disclosure is required by the Environmental Information Disclosure Decree (Trial; MEP, 2007a).

6. The energy-intensive and highly polluting industries identified by the National Development and Reform Commission are as follows: oil refinery, coke, chemical, building material, steel, nonferrous metal, and electricity.

7. For a detailed account of the process leading to the creation of the Equator Principles, see Conroy (2007).

8. Although the authors of this article are not aware of specific instances of collaboration between the media and Chinese environmental NGOs on topics related to the Green Credit Policy, it is assumed that such collaboration exists and that it is also a factor that encourages transparency of the banking sector. The local NGOs are in turn supported by efforts of international NGOs active in the area of finance and sustainability. International NGOs have collected data on past financing mistakes of Chinese banks; see, for example, “Michelle Chan: Fighting for Sustainability in the Bank Sector,” Ode Magazine, January/February 2009, http://www.odemagazine.com/doc/60/michelle-chan-fighting-for-sustainability-in-the-bank-sector/2 (accessed April 29, 2009).


References


Industrial and Commercial Bank of China. (2009). *ICBC corporation social responsibility report 2008*. Retrieved March 30, 2010, from ICBC Web site: http://www.icbc.com.cn/icbc/%E5%B7%A5%E8%A1%8C%E5%BF%AB%E8%AE%AF%E4%B8%AD%E5%9B%BDB%E5%B7%A5%E5%96%86%E9%93%B6%E8%A1%8C%E5%8F%91%E5%B8%832008%E5%B9%B4%E5%BA%A6%E7%A4%BE%E4%BC%9A%E8%B4%A3%E4%BB%BB%E6%8A%A5%E5%91%8A.htm


**Bios**

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