From Pollution Fee to Environmental Protection Tax:

The Potential and Limitations of the New Environmental Tax in China

Authors: Jian Wu¹a, Qing Chen¹b, Alon Tal²c

(1. School of Environment and Natural Resources, Renmin University of China, Beijing 100872, China;  2. Department of Public Policy, Tel Aviv University, Ramat Aviv, 6997801, Israel;  a. Associate Dean, jianwu@ruc.edu.cn; b. Doctoral Candidate, q-chen@mails.thu.edu.cn; c. Chair, alontal@tauex.tau.ac.il )

Abstract: Environmental Protection Tax Law of the People’s Republic of China is newly promulgated, aggressively on the way to better green incentives. The proposed policy is evaluated as part of the country’s layering orientation, where the gradual reform is considered an effective and durable strategy. The new law expands and upgrades the application of the polluter pays principle embedded in China’s present pollution fee system, so that this “fee to tax” reform is expected to significantly improve environmental performance. With “income neutrality”, the new law may also contribute to a broader tax green reform. The “Fee to tax” reform reflect the gradualism nature of this policy evolvement, which successfully complete the reform relatively quickly. “Fee to tax” enhance the legal basis and guarantee, which may strengthen the enforcement and improve the collection rate of pollution tax. However, it is the most important for a layering process to evaluate and learn so as to remedy defects in existing regulations. China’s existing
pollution fee system suffers from low collection rate and inappropriate pricing levels, but these fundamental problems of pollution tax have not been solved. The exemption of major pollution sources from agriculture and wastewater treatment substantially reduced regulating range of the new law. The neglect of VOCs as a whole, results in complicated contract to VOCs charge policy. Inefficient tax rate might offer little incentive for pollution reduction. The interagency interface between the tax and environmental authorities is inexplicit. The attribution and utilization mechanism of tax revenue is still unknown. An effective tax on a full range of polluting activities is a critical layer in China’s steady efforts to eliminate the adverse environmental effect related to rapid economic growth. Additional improvements are obviously important before the new law is enacted.

Keywords: environmental protection tax; gradual reform; layering; pollution fee; economic incentive; impact

1. Introduction

Environmental protection tax (EPT) is one of the most popular topics on environmental economic policy in China in the past ten years. During the product-life-cycle of “Resource Exploitation → Production (including emissions) → Consumption”, discharging plays the most direct role of environmental externality, which is the exact lacking of environmental taxation in China. However, China is currently at a crucial stage of pollution reduction, with sixteen of the world’s most twenty polluted cities, almost half of the world’s deaths caused by ambient air pollution, half of rivers classified as “unsafe for human consumption” (World
Bank, 2007). Although China has done a great effort on the pollution reducing target for over ten years, with thousands of factories being closed or moved, discharging standards becoming more and more stringent, it still faced a big challenge of pollution driven by a population growth, urbanization and economic development. These situations contributed to the urgent needs of emission tax policy, and Chinese Government needed economic incentives for effective environmental protection.

At the same time, China’s fiscal and tax system reform actually promote the development of environmental tax system in recent ten years. China’s environmental taxation reform started along with the new round of taxation reform in 2004, paying attention to optimization of resources allocation and "transfer the reasonable fees which is suitable for taxation forms to taxes" (CPC Party Central Committee, 2003). Pollution fee is exactly suitable for taxation. After 10-year efforts, in 2015, China released a new proposed statute: The Environmental Protection Tax Law of the People’s Republic of China (Exposure Draft) (hereinafter referred to as Exposure Draft Law), and asking for public comments. It is a very important progress in Chinese reform for fee clearance and tax legislation. Subsequently, the Environmental Protection Tax Law of the People’s Republic of China (hereinafter referred to as New Law) was approved on December 25, 2016, with the principle of unchanged tax incidence and only focusing on emission tax.

Someone may argue that there is little difference of the New Law and the pollution fees policies in China, and it is less significant to carry out this transfer. In fact, this is a typical
gradual process of institutional change, which is achieved through a marginal adjustment rather than an essential subversion.

Historic evaluations of public policy design suggest that shifts in the substantive orientation of policies are a process of “gradualism” rather than the cataclysmic reform “shock therapy” (Rocco, P. and C. Thurston. 2014). Although there some debates between proponents of shock therapy (Sachs et al., 1994) and gradualism (Mckinnon, 1994), North (1990) believes that institutional change mainly in a gradual way, with a marginal adjustment of the rules, norms and implementation in an institutional framework, basically continuously, gradually and stably.

Thelen (2003) put forward two modes to analyze gradualism: layering and conversion. Mahoney and Thelen (2010) argued “layering”, meaning “introduction of new rules on top of or alongside existing ones”, is a better and more steady way for addressing critical social challenges than external shocks that change the rules and system radically. The transition of China's pollution fee to EPT is exactly a layering mode. The New Law offering an addition “layer” to the considerable network of pollution fees, and will be the milestone of the tax system greening and help gradually achieving the ideal reform dividends of environmental protection and distortion elimination.

The buffering of transaction costs can maintain or force the institution to evolve in a gradual manner. The institution may also be persistent without best suitable arrangements, because the expected return might exceed the cost of changing (Shepsle, 1989). Daugbjerg
and Swinbank (2015) argued layering is more attractive for its effectiveness of implementation. It is good for reducing the reforming cost, especially in the short term. In addition, layering policy-making will be more acceptable, because stakeholders may be easier and more comfortable converted to the new layered policies, and furthermore without challenges to the legitimacy of existing institutions and leaders.

The continuity of layering legislation may provide a learning curve from existing policies for policy designers and makers, so that they can revised the policies framework more targeted. However, gradual reform is not equal to forward but may be backward. Davis and North (2008) believe that it is necessary to prevent backlash from the actors’ volition and preferences. Daugbjerg and Svendsen (2003) argue that environmental taxes will not be successful unless they are able to diffuse anticipated industry opposition, and legislative layering may make it simpler, especially in some countries where central government may not be as influential as China.

This article gives a detailed case analysis of China’s reform from pollution fee to environmental tax, which is a typical case gradually layering reform. Comparing the fee and tax policies, the research expounds the gradual layering phenomenon by analyzing the substantive changed and unchanged provisions. Basing on the learning curve of redesigned pollution fee policies, what potential benefits should be expected and what further amending should be done in the intending reform.
2. An Evolution from Pollution Fee to Environmental Protection Tax in China

Within China’s environmental economic field, pollution charge system has the longest implemented history, while EPT has been one of the hottest and most controversial topics in recent decade. Along with the promulgating of the Draft Law, these two parallel policy lines converged in 2015 (Figure 1).
Figure 1  An Evolution from Pollution Fee to Environmental Protection Tax in China
2.1 The Embryo of China’s Pollution Charge System

After pilot projects in late 1970s, China formally levied pollution fee in 1982 with the context dealing with the inflexibility of command-and-control instrument and the insufficient budget and funds for environmental governance and enforcement in China (PRC State Council, 1982).

At this stage, two layering process happened: (1) the taxpayers. In 1982 only pollution discharged beyond standards was charged, but in 1993, China firstly charged the wastewater with the idea of the total emission control (Ministry of Finance (MOF), the State Development Planning Commission, 1993); (2) the utilization of charge revenue. Originally, collected pollution fee was used for free to subsidize the pollution controlling. In 1988, free subsidization was replaced by a loan from a special fund out of pollution fee with interest (PRC State Council, 1988), further implementing "polluter pays principle". For many years, earmarking the pollution fee made sure a very important source of funding for pollution control in China.

2.2 China's Pollution Charge System Gradually Formalized

With two decades experience, in 2003, China formalized its pollution charge system (Chinese State Council, 2003). This is one of the most important reform of China’s pollution fee: changed levy items from single pollutant to multi-pollutants, replaced levy base of concentration by total emission, raised fee rates (Figure 1), doubled the fee rates if effluents exceeded the standards. More than this, the fee payers was expanded from
enterprises and institutions to all industrial and commercial individual households, and increased the penalties. These provisions enhanced and enlarged the effectiveness of pollution charge system. Furthermore, it regulated the pollution fee by separating revenue and expenditure, fitting into budgetary outlays and the special fund of environmental protection, to control rent-seeking risk.

Although being raised in 2003, the pollution fee rate was criticized for being too low to incentive emission reduction. From 2007 on, a number of local governments increased their fee rate to varied levels (Figure 2) and charging differently according to different concentrations of emissions.

In 2014, China promoted its pollution charge system again to nationally double the fee rates on the four targeted pollutants in pollution reduction governance and five heavy metal pollutants before the end of June 2015 (National Development and Reform Commission, 2014). In addition, the differential fee rates were applied according to the different discharge levels for more effective incentives. This policy signal went so far as to simulated several local governments to upgrade fee rates sharply, especially in two important regions of Jing-Jin-Ji® region and the Yangtze River delta (Figure 2).

© Beijing (Jing); Tianjin (Jin); Hebei (Ji).
Figure 2  The Change of Pollution Fee Rate in China

(It is incomplete statistics according to local policy documents. 0-National wide; 1-Jing-Jin-Ji region; 2- the Yangtze River delta; 3-others)
Promoting the pollution charge system gradually by policies layering, there are nevertheless some crucial problems to be addressed in China: (a) The fee rates are still not high enough to compete with the pollution abatement cost; (b) the emission measurement for pollution fee accounting is poor in accuracy; (c) the enforcement and execution rate is poor as negotiation on payment is allowed (Figure 3); and (d) the policy does not cover all pollution activities, exempting many important pollution sources.

(Data Source: National Environmental Statistics Bulletin from 2005 to 2014)

Figure 3 Execution Rate of Pollution Charge in China
2.3 China's Reform from Pollution Charge to Environmental Protection Tax

2.3.1 The Naissance of the Environmental Protection Tax Law of PRC

To solve the imperfections in the pollution charge system mentioned above, stakeholders and academician increasingly called for a more comprehensive “green tax” system. Since 2007, three related Administrations jointly designed EPT policy of China. From the international perspective, many countries introduced environmental taxes originally only for the purpose of environmental protection (OECD, 2011). However, the motivation of environmental tax has recently quietly converted to be an important and maybe necessary part of a broader reform of the taxation system. There is no doubt that China is on a similar way to the reform, including taxation legalization and structural adjustments, so that it offers a good opportunity to expand the tax framework to cover the whole product-life-cycle to solve the negative externality, including resource tax, consumption tax and emissions tax. While the first two types of environmental taxes are promoted very fast, tax on emissions is absent, which may provide direct incentive for pollution control (Andersen et al, 2000). This might be a serious problem as China is exactly at a crucial stage of pollution control. Pollution charge system has already contributed to incentives for emission reduction. What China needs is a new environmental tax system fully considering the existing pollution fee system.

In order to confirm the force of the planning EPT Law, it need to be enacted by the National People’s Congress (NPC) or its Standing Committee, the supreme organ of state power in China. Following the legislation process, after the application and extensive preparatory work, deliberations and compromise among the important stakeholders, in
November 2014, a draft law for EPT was submitted with the essence of "pollution tax" (Jia, 2014). Then the Exposure Draft Law was publicized on June 10, 2015, making it open for comments from experts and public. After revision and approval, the bill was presented to the NPC Stanting Committee at the end of 2015, and it formally entered the legislative examination process.

The NPC Standing Committee had the first review in September, 2016 and publicized the Environmental Tax Law (Draft) (hereinafter referred to as Draft Law) for public comments again. Then after the second review in December, 2016 and made further revision, the New Law was formally passed by voting of the NPC Standing Committee and promulgated on December 25, 2016, and will be enacted in January 1st, 2018.

Looking into the evolvement from pollution fee policies to Exposure Draft Law, Draft Law, then to New Law, some continuous and steady idea distributes in the provisions of taxpayers, tax items, tax bases, tax rates, accounting (monitoring), collection (declaration), revenue utilization, power-benefit division and local enforcement authority, and improved adjustment for reforming gradually exists at the same time. The New Law can be summarized that while tax rate will keep unchanged to make sure the overall tax burden converted smoothly, some provisions are designed to enhance the levy stringency and positive incentives and are also improved on normalization.

2.3.2 Changed Provisions

Although the keynote of this fee-to-tax reform is steady shift, the New Law is upgraded by some specific design.
Firstly, the enforcement rigidity will be enhanced not only because of the original force of the legislation, but also basing on some specific design as the followed seven points.

a) Taxpayers

The pollution fee system charges the *urban waste water* centralized treatment facilities exceeding the discharge standards of several pollutants. The *New Law* expands the scope of “charge on exceeding” from *urban to urban, town and village*, not only *wastewater* but also *household garbage* centralized treatment facilities, from *several pollutants* to *all listed pollutants*.

b) Tax Items

Besides of the top 3 conventional air/water pollutants, the tax items are extended from five listed heavy metal pollutants to top 5 of the first class pollutants which will accumulate in the environment or inside plants and animals, mostly heavy metals. The human health gets more and more attention. Furthermore, provincial governments are authorized to expand the pollutants list and require additional pollutants to be taxed. The fugitive air pollutants emission behavior will be taxed. It is conducive to strengthen the regulation of volatile organic compounds (VOCs) emission which has already been major pollutants in Southern China and contributed much to PM2.5 all over China.

c) Tax Rate

Although the pollution fee rates newly upgraded to the current level before June 2015, they only cover 4 major air/water pollutants and 5 heavy metals. The *New Law* expands these base rates to all listed water and air pollutants.
d) Tax Accounting

Priority of the automatic monitoring data on fee/tax accounting is gradually promoted and other accounting data sources are conditionally restricted. It is good for increasing monitoring frequency so as to improve total emission accounting accuracy.

e) Collection Modes

The *New Law* clearly defines the tax accounting and collecting frequency while pollution fee not. Specially, the *New Law* does not mention tax relief and delay, may lessen negotiation on the tax collecting amount and enhance the execution and enforcement.

f) Tax Declaration

Taxpayers are commonly required to declare tax amount quarterly. The *New Law* puts forward more rigorous regulation on declaration, requiring additional declaration of discharge concentration.

g) Penalties

Comparing to the *Exposure Draft Law*, the *New Law* deletes the “serious loss” precondition of penalties on illegal emission. No matter what consequences were, the illegal behaviors would be punished according to laws on taxation and environmental protection, so that the authority and force of the *New Law* are enhanced.

**Secondly,** the positive incentive provision designs are as follows: 1) the *New Law* additionally emphasizes the exemption of solid waste comprehensive utilization behavior, encouraging recycling; 2) more grades of discounted rates may also be applicable to encourage meaningful pollution reduction.
Thirdly, the normalization represents in two aspects. 1) For tax rates, the *New Law* delete the double tax rates on illegal emission, strictly distinguishing the different natures between legal emissions suitable for tax and illegal behaviors must to be punished; 2) For local enforcement authority: the tax rate discounts and accounting/declaring frequency are clearly defined and unified; the provisions of relief are deleted; tax rate discretion is limited within ten times and designated legislative level. These rules decrease the arbitrariness within taxation decisions, controlling local protectionism and rent-seeking behaviors.

Fourthly, the *New Law* introduces a new institutional arrangement for tax collection. In the new framework, the procedures rely heavily on self-reporting by polluters. Unlike the Environmental Protection Bureau (EPB) in charge of almost everything in pollution fee system, the required data are submitted to the Tax Bureau for by polluters, while the emission monitoring is supervised by EPB. The detailed discharge inventory and data is shared between tax and environment authorities.

Finally, revenue utilization is deleted in the *New Law*. The revenue from pollution charge is earmarked for environmental protection by being put in the special fund. *Exposure Draft Law* proposed to replace earmarking by bringing into the unified fiscal budget, while the *New Law* deletes this term. However, it is a key point and should be regulated in some policy.
3. The Expected Impact of the Environmental Protection Tax Law in China

As previously discussed, the New Law appears to be a gradual layer and the reform will steadily move forwards. The existing defects in implementation of China’s pollution charge policy can be expected to partly correct, but partly continuing.

Theoretically, the principle and effect of fees and taxes are consistent. Is it worth and cost-efficient to pay such a lot in nearly copying pollution fee to EPT? We argue that, from the macro-view, the New Law is ultimately a big step in the process of the legislation of taxation and reform of China’s green fiscal system, from micro-view, a medium step in enhancing the Pigouvian pricing on pollution, but regrettably a small step in achieving substantial emission reductions.

3.1.1 To Make the Taxation and Fiscal System Green

A “green” tax system should adjust the tax structure, producing sufficient revenues to support financial consolidation with other existing taxes cut or reduced. EPT reform is a usual way for tax and fiscal greening. Many developed countries have realized legalization of their environmental fees. This is undoubtedly a progress on the normalization of the fee system. Environmental taxes have long been argued that they can realize “double dividends”, both incentivizing socially desirable behaviors and producing alternative tax sources and fiscal revenues by adjusting the utilization of incomes and the overall tax structure. China is rightly in an integrated societal strategy, the introduction of pollution fee into the mainstream taxation can be considered as an important step.
3.1.2 To Improve Enforcement Rigidity and Collection Rate

Basing on nature force of legislation, the New Law is supposed to improve the implementation performance and increase the collection rate.

Low collection rate of pollution fee is often considered to be an important reasons for insufficient incentive on emission reduction behavior. Interviewing some local EPBs, many times they charged the enterprises on a fixed quota of pollution fee according to how much they are assigned to collect or how much they believe a polluter can afford, without considering the actual emissions. The arbitrariness and excessive discretion during pollution fee policy execution limited the collection rate improvement and disturbed the regulatory signals. According to our analysis with the major pollutants emission data in 2014 and the pollution fee rates applied since 2003, the pollution fee collection rate in China was low as 76%. Considering other pollutants should be charged, the actual collection rate would be lower. Therefore, even with the new fee rate in 2014 or tax rate, the revenue would be no more than 37.7 billion RMB. It is estimated that after establishing a new EPT, the legal basis and institutional authorities available for collection will be strengthened. With 2014 emission data, the total amount of environment tax could reach 49.3 billion RMB. Improved collection rates will undoubtedly increase the impact of the economic incentives, constitute a more fair policy and facilitate far more effective environmental management.

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Note: In 2014 and before, most of China is still applying the old pollution fee rate set in 2003, which is only 50% of the basic tax rate in the New Law.
3.1.3 To Set the Tax Rates Effective for Pollution Reductions

Although the New Law can enhance the collection of EPT, it is possible failing to facilitate emission reduction, if the tax rates cannot be increased according to environmental outcomes.

The theoretical basis of environmental tax is the Pigou-tax principle in the competitive market, with tax rate basing on the external cost of pollution which is practically difficult to accurately measured. Therefore, Baumol and Oates (1971) proposed a standards-pricing approach: the tax rate is adjusted according to the emission standards by considering the projected marginal cost of pollution abatement. This is the usual way for emissions tax/fee rate decision in most of the countries, then the regulated polluters will decide whether to reduce emission by comparing its tax and abatement cost. Qin et al. (2015) shows that the higher environmental tax rate can significantly reduce emissions, while the decline in GDP within the affordable range. The New Law is expected to be a good opportunity to raise the environmental tax rate higher than the abatement costs for higher effectiveness.

4. Problems to Be Solved in the Environmental Protection Tax Policy

The typical layering reform of “fee to tax” is helpful for steady and easy implemented, but many problems are left to be solved, or the aforementioned expected benefits of the New Law may not be realized. Although layering is good for reducing the short term implementation cost, repeated reforms may make the final cost of the overall reform too large (Fan, 1993).
4.1 Incomplete Tax Items

The scope of tax items in the New Law is too small and not extensible without the possibility to add VOCs or carbon tax, which are very likely to be taxed in the future. VOCs may be particularly urgent to be thought about because its pilot.

We argue that the decision makers will face the policy integration at the following four points in the very near future referring to VOCs pilot system and some taxed VOCs in the New Law: a) The species of VOCs related to the pilot charge system are much more than those in the New Law. b) The pilot charge system treats VOCs as a whole (TVOC), while the New Law accounts the listed VOCs individually with their respective PEs. c) In some industries, the pilot charge system account emissions by converting from inputs which is not applied in the New Law. d) VOCs are charged synchronously but nonredundant in the pollution fee system and the pilot system. Since 2018, we have to complete this complex connection between taxed VOCs and charged TVOC, or to amend the relevant part in the New Law.

4.2 Inefficient Tax Rates

As the above analysis, the tax rates for pollutants in the New Law should base on pollution abatement costs. The problem is that the New Law only adopts existing pollution fee rates, which have been approved to be far below the marginal abatement cost. More than this, the New Law does not set a tax rates upgrading plan or provide an approach to amend the tax rates. Although the New Law allows upgrade by provincial jurisdiction, these relatively low rates will limit the effectiveness of the new legislation. Many industries are not
expected to really response for the tax and reduce emission. The study by Qin et al. (2015) show that with the new tax rate, emissions of the four major pollutants are only likely to decrease slightly. The researches on the pollutant treatment cost shows that the New Law tax rates is too conservative. For example, the average abatement costs of COD, ammonia nitrogen, SO2 and NOx for the industries of Shanxi Province in 2012 were about 1.25 to 4.75 times of the new tax rates, far from promoting the further pollution control (Wu and Chen, 2015).

Qin et al. (2015) assessed a range of tax rate scenarios and concluded that any associated decline in GDP due to environmental taxes was within an acceptable scale. Therefore, it is reasonable to increase the tax rate to a higher level. It is also useful for maintaining the EPT revenue scale against the atrophy caused by regressive emission during environmental management advancing. For example, Beijing raised the fee rates upto 15 times since 2014. Although the four major pollutants emissions decreased sharply, the pollution fee income of Beijing still enlarged 5 to 9 times (Figure 4).
There are discounted rates in the *New Law* for excellent pollution control. However, it loosen the condition to only depend on the effluent concentration. It might be a backward step in promotion of total emissions.

Given that the objective of the *New Law* is to provide incentive for pollution abatement, some researches indicate that a differentiated tax rate system should be applied practically (He, 2016; Wu and Chen, 2015), fully considering differences in abatement costs among disparate industries as well as regional distinctions. Appropriately, the *New Law* authorizes considerable autonomy to provinces to increase tax rates no more than ten times. However, whether the range is reasonable has not been approved. For some area such as Beijing, its pollution fee rate has been already close to the ceiling, so the 10 times limit might be challenged soon. Another concern is that regional differential tax rate creates a risk that some regions will choose to “race to the bottom” and offer lower tax rates, creating “pollution havens”. Since 2015, significant different fee rates for the major pollutants have emerged within Jing-Jin-Ji Area (Figure 2), a close geographical range. This has aroused anxiety. Few studies answer whether 10 times is suitable to avoid the transfer of pollution and the externality from regional environment deterioration.

In addition, differential tax rates for disparate industries should be considered, which the *New Law* does not mention. Researches consistently confirmed the significant differences in abatement costs among different industries (Wang and Wei, 2014; Davies and Mazurek, 1996;
Russel, Harrington and Vaughn, 1986). This phenomenon emerged from our survey regarding four important industries in a case city in north China (Pang and Wu, 2014). The study clearly confirmed cross-industry discrepancies in the operating costs of pollution control. With the tax rate in New Law, some industries might prefer to reduce pollution for its cost is lower than the expenditure taxes, while some industries might not. Therefore, unified tax rate across industries cannot guarantee all important pollution sources industries control their pollution as anticipated.

4.3 Excessive Taxpayer Exemptions

Beyond some negotiation deals, the excessive taxpayer exemption causes low coverage of potential taxpayers in the New Law, almost completely copying the exemption from the pollution fee system, excluding agricultural pollution, motor vehicles, conventional industrial solid wastes and urban sewage treatment plants among the pollution sources subject to the new tax. The New Law excessively considers the current management and governance capacity on tax collection, lack of forward-looking.

Agricultural pollution and motor vehicles are typically small, dispersed sources of pollution which constitute a considerable regulatory challenge. But their aggregate contribution to degraded environmental conditions is among the most significant. Agricultural discharges contributed 43.7% COD, 57.2% total Nitrogen and 67.4% total Phosphorus in 2007 (Rao, Xu and Ji, 2011). Vehicles emissions from were identified as one of the most important pollutant sources in China’s big cities.
The urban sewage treatment plants concern not only domestic wastewater sources with 37.8% COD and 57.5% ammonia nitrogen released in China in 2013 (Wu and Chen, 2015), but also large amount of indirect discharging enterprises. According to our calculations, the New Law only taxes 13.5% COD and 10% ammonia nitrogen overall discharges of China. However, pollution concentrations of the strictest sewage treatment plants discharge standard in China are still far higher than permissible surface water standards. Therefore, the indirect dischargers pay treatment fees to the treatment plants, but do not pay emission tax for its huge amount of taxed pollutants actually discharging into natural water through the centralized treatment plants. This creates an inherent inequity that neither the punitive effects, nor the positive incentives of an EPT are passed on to industrial pollution sources through the price chain.

Practically, to solve the above excessive exemptions, some methods and international experience can be followed to replace of exemption or permanent concessions. There are successful cases on dealing with the difficult environmental performance monitoring of farmers and vehicles, especially with indirect taxes (e.g., tariffs on inputs). Many countries have introduced taxes to reduce demand for fertilizers and pesticides and their emissions (Institute for Self-Reliance, 2009).

Wastewater treatment plants are a “classic” point source that is easily taxed according to any parameters. International experience with taxation of sewage goes back almost 50 years (Ecotec, 2001). For the wastewater treatment plants, we can set the tax transition or suspend temporarily, but should eventually combine EPT and the sewage treatment fee collection.
systems to form a price chain of "EPT-wastewater treatment fee", transferring the real pollution reduction cost to the real polluters.

4.4 Indistinct Collection and Management Responsibility

The New Law intends to further enhance the enforcement rigidity by clearly defined some details besides of the original force of a law, but at present, innovations appear to be largely absent.

Under the New Law, if the Tax Authority believes that information declared by taxpayers is inaccurate, it may submit a request to the relevant environmental protection agency to verify the actual emission. But the Tax authority’s capacity for evaluating applications and tax payments based on the reported and shared data is doubtful. For an environmental tax law to be effective, it needs to specify that professionals from the environmental protection ministry are responsible for verifying the veracity of applications and payments. This requires very high skill of collaboration between the Tax and Environment authorities. In order to support the collaboration, the smooth contacting between Environmental Protection Law and Tax Administration Law is necessary, avoiding conflict of these two laws resulting in twice penalty for once illegal declaring. If these important responsibilities are not clearly defined, polluters will play ministries off against each other and seek a path of least resistance.

4.5 Undefined Attribution and Utilization of the Tax Revenue

The New Law contains no provisions designating any attribution and special use for the funds generated by the EPT.
For better balancing the conflict between their governance and property rights, and helping to resolve funding needs in the cross-regional environmental problems with some gathering revenue by the central government, it is recommended to share the tax revenue between the central and the local government (Li and Yin, 2016; He, 2016).

However, the EPT is not expected to bring substantial contribution to the revenue scale. It is estimated that the country's industrial emissions in 2014 can raise funds only about 50 billion RMB from EPT, and might become less and less with the regressive characteristics of emission tax caused by the emission reduction. This revenue is a huge drop in the demand for environmental protection and governance funds, so that the earmark cannot meet the developing environmental investment need. According to the nature of taxes, all new tax revenues will be part of the Chinese government’s general income and are subject to general budget priorities. Therefore, it is suitable to introduce the tax revenue into the unified fiscal budget, to ensure the input of environmental protection through the appropriate mechanism with diversified capital sources, finally to establish a green fiscal expenditure structure.

5. Conclusions

Pollution levels in China remain extremely high and environmental exposures constitute the country’s paramount public health priority. It can be argued that without initial efforts through pollution fees, it would not have been possible to move forward to the next level of regulation. Adopting a new Pigouvian initiative can lay a foundation for future adjustment of China’s tax structure and overall tax system reform. That’s why it is important to “get it right”. In evaluating the virtues and shortcomings of China’s New Law, we reach several
conclusions that should be considered as part of the environmental tax reform currently under debate:

Firstly, China stands to benefit from a new environmental tax. By shifting from “taxes on good activities” to “taxes on bad activities”, the new statute upgrades and leverages three decades of incipient efforts to bring the polluter pays principle to corporate and individual decisions. China’s pollution control policies continue to be driven largely by command-control / engineering measures. As regulations grow more strenuous, this approach has already led to increased spending in environmental protection by polluters. To survive from proliferation of mandatory rules and regulations along with the existing pollution fee system, the reform of environmental taxation should be promoted as expeditiously as possible.

Secondly, China needs to establish an environmental taxation system that fully integrates existing programs that levy pollution fees. The new, integrated system should systematically consider the full gamut of polluters including the major pollution sources from agriculture and wastewater treatment in China.

Thirdly, environmental taxes need to be promoted within the context of a broader, structural tax reform. The New Law constitutes a precious historical opportunity for fundamental tax reform.

Finally, the Chinese layering strategy makes sense in a country that has a moral responsibility to address pervasive poverty through robust, economic expansion but that at the same time needs to come to terms with the enormous consequences in terms of public health and pollution. A gradual process should not be synonymous with complacency. On its
steady road to improvement, China must maintain clear sense of where it needs to be going environmentally. Notwithstanding the aforementioned imperfections, the newly proposed legislation and its transition from a “pollution fee to environmental tax” is a critical new level that will strengthen the legal basis for economic incentives as a key tool in China’s environmental protection. A series of problems in the present New Law, however, remain unsolved. China should try to make its economic policy instruments even more effective.

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