

Revenue Assignment and Intergovernmental Fiscal Transfers in Thailand : Review Past Experiences and the Ways Forward¹

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Abstract

This paper reviews Thailand's system of local governance finance and decentralization with emphasis on two specific issues; viz., revenue assignment and grant allocation to support local governance. Over the past decade the grant revenue increased to support local governments' supply of local public goods. This have led to too a high-dependency on annual budgetary grant which is not a good sign – if this trend will continued, then local autonomy will be weakened and may lead to inefficient local budget management. In this connection, the author proposes for a fiscal reform: a) it is important to broaden local tax base and this can be achieved by introduction of property and environmental taxation; b) the tax-sharing rules between central and local governments should be amended, specifically 70:30 formula may be appropriate and the sharing tax base should include VAT, excise taxes, personal and corporate income taxes, and natural resource taxes. Thirdly, the new design of grant amount and allocation formula proposed.

Keywords : decentralization, revenue assignment, intergovernmental grant, tax-sharing, property taxation, environmental taxation

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1. Introduction

Decentralization has undergone a major transformation in Thailand after *the Decentralization Act 1999 (BE2542)* that have led to significant improvement in public service delivery across the country and an enhanced capability of local government units in general over the period 2000-2009. It may be the right time to evaluate what have been achieved and what have not. Although it is important to understand the whole picture of decentralization that encompasses political, administrative, and fiscal dimensions – the author however sets a modest objective to comment on fiscal dimension only. Two important issues to be discussed in this paper are: the revenue assignment between central and local governments and the fiscal transfer (grant allocation) to support further decentralization according to the national plan.

Conceptually the revenue assignment to local governments should match or correspond to expenditure assignment or the supply of local public goods in which local governments are assumed to take responsibility. According to the Decentralization Act of 1999, 245 functions were to be devolved from central agencies to local governments within the timeframe – at present, only 180 functions have been transferred. In this connection, it is

anticipated that over the next five years, transfer of functions in the area of primary school, health prevention and promotion, and social assistance will be continued with a full support and endorsement from the National Decentralization Committee (NDC). Bearing these in mind, the issues of revenue assignment and fiscal transfer cannot be conceived as static and deterministic goals but more of the moving targets over the course of decentralization. The revenue of local governments in Thailand are mainly based on 4 sources: a) locally collected taxes, b) non-tax revenues; c) shared taxes or the taxes collected by central agencies on behalf of local governments; and d) intergovernmental grant. The latter two components are the most important as they constitute to approximately 70-80 percent of the total local government revenue.

The author tries to achieve two objectives in this paper: First, a review of revenue assignment concepts drawn from public finance literature and practices in selective countries (in this case, Japan and China, both are unitary states and in this sense some similarity to Thailand). Next a review of decentralization situation in Thailand with primary focuses on the revenue assignment. Secondly, a critical comment on the weakness in our system of tax-sharing and an increasing trend of dependency

on grant revenue which are not a good sign for further decentralization. The author argues for fiscal reform in three areas: a) it is important to broaden local tax base and this can be achieved through introduction of the property tax and environmental taxation as new sources of the local governments; b) the tax-sharing rule between central and local governments should be revised, and c) depending on the success of policy reform in a and b, the budgetary grant amount for local governments can be reduced significantly and the new allocation formula should be redesigned to fill fiscal gap and equalization objective. In this connection Thailand can learn from experiences of intergovernmental fiscal transfer in other countries.

This paper is organized as follows: Section II discusses the concepts related to design of local taxation, tax-sharing, and fiscal transfer from local public finance literature and to draw from practices from Japan and China. Section III describes the changing revenue structure of local governments in Thailand over the past decade and comments weaknesses that are connected to high dependency on the grant revenue and inefficient use of specific grant in particular. In section IV articulates for a fiscal reform to support further decentralization whose topics include: i) the possibility to introduce property tax and environmental tax: ii) new tax or revenue-sharing rules in the

newly drafted law “Local Revenue Act”; and iii) introduction of the equalization grant formula. Section V conclusion. An appendix presents the case for property tax with simulation exercise using the household survey conducted in 2006 and the estimated amount revenue and the distribution of tax burden presented.

2. Review of Concepts and Practices

The term “*revenue assignment*” is a broad concept that covers: a design of local taxation, nontax revenue, tax-sharing or the revenue-sharing rules between central and local governments, and how inter-governmental grant is determined in total and appropriate allocation between local government units. Ideally the revenue should be adequate for local governments to perform the supply of local public services and they should be fair to all. Fairness is however subjective and debatable. Boadway and Shah (2009) note that: “*Decentralizing revenue-raising responsibilities is one of the most unsettled issues in fiscal federalism*” (p.157). In theory, the design of local taxation should take into consideration: efficiency issue, national equity, administrative and compliance costs, and fiscal accountability. Those objectives are not always coincide ; i.e., the design based on equity objective can be very much

different from the design based on ground of efficiency. The term *vertical fiscal gaps* reflects the difference between revenue means and expenditure needs of states and this gap is usually filled by the revenues raised by central government that are made available to the states to finance their expenditures (Boadway and Shah 2009, p.293). Standard revenue-sharing systems provide a transfer in a lump-sum and unconditional ways to the states and the sub national authorities are left with full discretion over how to spend them. Revenue sharing tends to apply to the broad tax base (such as VAT, excise tax, income tax). The case for revenue sharing of narrow tax bases is rather weak. Sharing from a broad based-tax has its advantage in the fairly predictable amount of funding.

Inter-governmental transfer between central government to local governments in the form of "budgetary grant" is commonly observed in most countries. In principle, the annual grant can serve multiple objectives, for instances, a) to fill vertical fiscal gap; b) to ensure the minimum standards of public services provided by local governance all over the nation; c) to correct for spillover effects across local boundary; and d) to promote efforts and incentives for local governments to perform specific functions.

Boadway and Shah (2009) comprehensively reviews practices of local governance around the world and in particular the fiscal relation between central and local governments. Among the Asian countries, the book mentions the Indian Model, the Chinese Model, and the Japanese Model. The author is of an opinion that the Chinese Model and the Japanese Model may be interesting and could provide valuable lessons for Thailand. Japan and China are unitary states, similarly to Thailand. Local government system was introduced in Japan in the Meiji era in about 1890 and had elements of the French and German models. In the past the Ministry of Interior appointed heads of regional government (the governor of prefecture) who had a control over local districts and municipalities. In 1960, the Ministry of Home Affairs was established and had provided supportive role for local governments. Income taxes have long been the mainstay of Japanese local government finance. Mochida (2006) briefly described a short history of Japan's central – local relationship and noted that the uniqueness in Japanese system of centralized decentralization. Under the prewar Ministry of Interior had tremendous power covering all areas of domestic affairs. This was replaced by the Ministry of Home Affairs in 1960, and later, 2001, merged with

the Ministry of Posts and Telecommunications to become the Ministry of Internal Affairs and Communications.

The expenditure assignment in Japan, measured by the percentage shares of central government and local governments are 43 percent and 57 percent respectively (Mochida, 2006, p.153) indicating that local governments have a higher share of command of fiscal resources. In term of tax allocation, the positions are opposite, i.e., the central government shared 60 percent and local governments 40 percent. A quote from Mochida (2006,p.154) Japan's system, therefore, can be characterized as a combination of centralized tax assignment with delegated expenditure responsibility. Put another way, Japan's fiscal system resembles cooperative-administrative federalism.

Local taxes in Japan accounted for 31 percent of revenues for prefectures and 33.7 percent of revenue for municipalities. Among the most important local taxes: a) property tax levied on land, buildings, and depreciable property. The standard tax rate of 1.4 percent; b) inhabitant tax administered through tax withholding at the source and then employer delivers the personal inhabitants tax to municipality in which the employee resides; c) general sales tax - the system is rather complicated but can be briefly summarized as follows since 1989, Japan established a

consumption transfer tax. Some quotations from Mochida: "that transfers a set percentage, 20 percent, of the national consumption tax to prefectures on the basis of objective standards such as population and number of employees", and "The local consumption tax is complicated, combining both the origin principle and the destination principle" (2006, p.159), and "In this way, under Japan's local consumption tax, local governments in the places of origin have authority to tax. however, with the system that is in place, local consumption tax is collected by the central government, and the revenue is then later returned to local governments in the place of final consumption through an adjustment system" (Mochida, 2006, p.160). Overall, the Japan's local tax system (based on the fiscal year 2005 statistics) was assessed to be an evenly dispersed tax bases: with 24.5 percent from personal income tax, 22.2 percent from corporate income tax, 21.1 percent from consumption tax, and 32.3 percent from property tax (Mochida, 2006, p.162)

According to Qiao and Shah (2006), China government is a five-tier structure: on top is the central Local government. Administrative bodies include: 22 provinces, 4 municipalities, and 5 autonomous regions, 333 prefecture-level administrations, 2,861 county-level administrations, and 44,067 township-level administrations. Some quotations: "The central

government sets the policy direction. Local governments are responsible for designing and implementing local policies that fit local needs, as long as local policies are not in conflict with the central government's policy" (Qiao and Shah, 2006, p.140). The fiscal system applied for sub national governments in China was categorized into two models, namely, "Province Managing County Model" and "Prefecture Managing County Model" ((Qiao and Shah, 2006, p.141). The central government is mainly responsible for national

security, international affairs, the operating costs of the central party and its organs, adjustment of the structure of the national economy, coordination of regional development, and adjustments and control of the macro-economy. Local governments are responsible for Delivering; (a) day-to-day public administration ; (b) social and public services such as education, public safety, health care, social security, housing, local and urban services; (c) local economic development; and (d) local industrial policy (Qiao and Shah, 2006, p.142).

Table 1 : China's revenue shares of governments in 2003

Revenues	Central	Provincial	Sub provincial	All
Tax revenues	58	14	28	100
- VAT	75	6	19	100
- consumption tax	100	0	0	100
- business tax	3	27	70	100
- urban maintenance and construction tax	0	10	90	100
- enterprise income tax	60	20	21	100
- individual income tax	60	16	24	100
- agricultural taxes	0	4	96	100
<i>Total Revenues</i>	<i>55</i>	<i>11</i>	<i>34</i>	<i>100</i>

Source : Baoyun Qiao and Anwar Shah 2006, p.149

3. Decentralization and Revenue Assignment in Thailand

The past decade witnessed an emerging role of local governance and a major increase in

the fiscal command of resources by local government after the Decentralization Act 1999

which is an organic law mandated by the Constitution 1977. In 1977 local government revenue in total combined to 93.8 billion baht, and shared to 11.1 percent to central government revenue (Table 2). It should be noted that the intergovernmental grant had drastically jumped in 2001 simply because the Decentralization Act 1999 that stipulated the revenue share of local governments be at least 20 percent by the year 2001 and 35 percent by 2006.

Two fiscal tools were applied to fill local fiscal needs: one, is the shared tax (from VAT) as indicated in column C and two, a rapid increase in

grant revenue in column D. If this trend will continue, we will eventually soon see the percentage share of grant revenue in the total local government revenue exceed 50 percent in the next few years. The local autonomy will erode and this may lead to inefficient management in many forms, e.g., delay in payments and project construction, etc. Formally, there should had been a fiscal reform in broadening local so that revenue assignment for local governments adjusted upward and correspond to increase in expenditure assignment.

Table 2 : Local government revenue in Thailand in 1997-2006

Fiscal year	A	B	C	D	E	F	G
Year	Local revenue	Taxes collected on behalf of LGs	Shared tax	Grant	LG revenue	CG revenue	E/F percent
1997	16,985.6	47,380.2		29,507.6	93,873.4	843,542.3	11.13
1998	17,626.2	48,831.7		31,378.9	97,836.8	733,136.9	13.34
1999	17,516.8	42,731.6		37,499.3	97,747.7	708,826.0	13.79
2000	19,475.3	45,527.5		34,800.0	99,802.8	749,945.0	13.31
2001	17,701.9	55,651.9	12,669.0	73,729.8	159,752.6	772,574.0	20.68
2002	21,084.5	58,143.5	19,349.0	77,273.3	175,850.3	803,651.0	21.88
2003	22,258.3	60,217.7	35,504.4	66,085.7	184,066.2	829,495.6	22.19
2004	24,786.3	82,623.4	43,100.0	91,438.0	241,947.6	1,663,600.0	22.75
2005	27,019.0	95,370.3	49,000.0	110,610.7	282,000.0	1,200,000.0	23.50
2006	29,110.4	110,190.0	61,800.0	125,300.0	326,400.0	1,360,000.0	24.00

Source : Office of the National Decentralization Committee

taxation and a revision of tax-sharing rule Thailand introduced value added tax (VAT)

in 1992, prior to that business tax was levied on business enterprises on single stage basis.

Under the business tax, there was a surcharge tax at 10% for local governments but the tax collection operated by the Revenue Department, Ministry of Finance, and the revenue proceeds then passed on to local governments. There are other tax items that were assigned to local governments with the task of tax collection operated by central government agencies, e.g., land acquisition tax by Land Department and motor vehicle license fee by the Land Transportation Department. The surcharge on business tax is now referred as “*the One of Nine*” in the VAT allocation for local government. Since 2001 another portion of VAT revenue has been allocated to LGUs for purpose of raising local tax source and to fulfill the law requirement (Decentralization Act 1999) that

stipulated an intention to raise the local governments’ share in VAT and excise taxes between central and local governments to the goal of 70:30³. Another portion of VAT revenue, specifically a 5 percent of the VAT revenue collected within a province, be allocated for PAOs and Bangkok Metropolitan Administration (BMA). The allocation rules over these tax-revenues as practiced in Thailand are also complex - in fact, the term “taxation” is misleading or misnomer as some items should It is clear from Table 3 that the grant revenue is the most important item in LG revenues as its share in total LG revenues was very high (41.01 percent) in comparison to the locally collected revenues that accounted for only a small portion (8.54 percent)

Table 3 : Thailand’s local government revenues in FY2010

Total revenue	340,995 million baht
A. locally collected revenues	29,110.4 (8.54%)
B. shared tax	45,400.0 (13.31%)
C. taxes collected on behalf of LGs	126,589.6 (37.12%)
D. grants	139,859.2 (41.01%)

Source : the documents prepared for the National Decentralization Committee, by the Task Force for Reviewing Revenue Allocation for Local Governments, 11 March 2010

³ The tax sharing rule over excise tax between central- and local-governments has been the same, i.e., 90:10 due to the specific law on “Alcohol Tax Act” and “Tobacco Tax Act” –both acts specify a 10 percent surcharge tax be allocated to local governments. In this sense the mandate from the Decentralization Act is different from and not agreeable to the Alcohol Tax and Tobacco Act. The State Council, which is a law advisory organization to government, judged that the Decentralization Act does not power over the two acts.

These figures reflect two characteristics which are weaknesses in our local government finance: a) the scope for local taxation and nontax revenue in FY2010 and the important revenue items; ranked by their relative importance are grant revenue, followed by taxes collected by central agencies on behalf of local governments and shared tax, local tax revenue accounts a small portion (8.54 percent) for local governments is too narrow; and b) our local governments depend highly on grant revenue from annual government budget. There are at least two approaches to correct these limitations: First, by introducing property tax and environmental taxation as local tax base or as “shared tax”. Secondly by amending the tax-sharing rule, from roughly speaking 90:10, to a new formula 70:30 as proposed by the newly drafted “Local Government Revenue Act”. These topics will be discussed later in this paper. Grants from annual government budget to local governments has increased in its importance over time following

revenue assigned be properly termed as “charge” or “fee”, for instances, motor vehicle license fee. Figures in Table 2 that presents local government the national decentralization policy in practice the determination of the grant amount had been based on over the long-run the amount of LGUs’ revenue should be raised to 35 percent of the central government revenue according to the Decentralization Act 1999; b) the current level of LGUs’ revenue should not be lowered than the amount of the preceding year; c) the grant revenues should be used as an instrument for equalization; and d) the grant was used as tool to fulfil specific functions or the national development policies - this was mostly exercise through specific grant. Over the past ten years, the grant allocation had been determined in 2 steps: First, by organizational divisions, namely, BMA, Pattaya City, and the rest (which is to be shared among PAOs, municipalities, and TAOs). Statistics below show the amount of grant for the fiscal years 2008 - 2010 and how it was allocated in the first step.

Table 4 : Grant amount and allocation for local administrative organizations in FY2008-2010

Unit: million of baht

Fiscal Year	Grant amount	BMA	Pattaya	The Rest
2008	147,840	15,065	1,700	131,075
2009	163,057	14,421	1,499	147,137
2010	139,895*	13,182	1,350	125,363
2011	173,900*			

Source : Data prepared by the National Decentralization Office for the committee meetings

The figure for FY2011 is preliminary

The rest refers to: PAOs, municipalities, and TAOs

Remark* (plus 23,000 million baht from government borrowing for economic stimulus)

In the second step, the grant allocation is spitted into 2 items, namely, general grant and specific grant. The grant amount and its allocation rules in practice is complicated to explain. In principle, the National Decentralization Committee has a responsibility as adviser to the government for the allocation rules - in reality, both the grant amount and allocation seem to be the result of bargaining process. The ruling political parties could exercise

power through specific grant with “announced” policies that varied from year to year, the Bureau of Budget has a discretionary power in the budget preparation process, the Ministry of Interior and Department of Local Administration played influential role as the grant amount in not directly allocated to local governments. In Table 5 below shows figures of the grant amount and how it was divided 2 components: namely, general grant and specific grant.

Table 5 : General grant and specific grant for PAOs, municipalities, and TAOs

Fiscal Year	General grant	specific grant
2008	109,998	21,077
2009	104,100	30,485
2010	74,272 *	51,091

Source: Data prepared by the National Decentralization Office for the committee meetings

Remark* (23,000 million baht from the fiscal stimulus package not included)

It should be obvious to observe a strong and increasing trend of specific grant over the past 3 years. As the specific grant is a project-based grant and they are subjected to conditions set by the ruling governments and here opened opportunity for the ruling governments (and ministries) to exercise power through local government budgets. Over the past few year Thai people witnessed a rise in “populist policies” and these have led to a marked increase in specific grant. Examples of the recently populist programs “a free 15-years schooling program”, “the 500 monthly stipend grant for elderly”, and “the health

volunteer program”-these are programs have been initiated by the current Government of fiscal year 2009. Criticisms against specific grant are noted: a) it is inconsistent with the national policy to promote local autonomy - In fact, specific grant should not properly be counted as “local revenue” as local governments have little control over the use of money; b) the allocation of specific grants which are project-based can be biased according to political influence and, from the past evidences, tended to bias in favor of large local governments and against small or remote local governments; c) the risk of wasteful use of money as the grant

amount tend to be treated as “free money” dropped from above by local administrators with an instruction that projects must be done and money disbursed quickly, say, within 3-6 months – the projects do not passed the normal screening process of annual local government budgeting and do not respond to needs of local people; d) from political economics analysis, there is a room for ‘rent’ in specific grant budget to be dissipated among construction enterprises and politicians.

4. The Ways Forward: New Local Tax Bases, Tax Sharing, and Equalization Grant

In this section the author articulate for the fiscal reform that aims at correcting weaknesses in our system of revenue assignment and the fiscal transfer. Our guiding principles are local autonomy and an empowerment concept. Three issues will be discussed here: First, it is important to broaden local tax base and this can be achieved by introducing property taxation and environmental taxation. Secondly, there is a strong need to overhaul the tax- or revenue-sharing rules between central- and local-governments as the currently adopted rules are not consistent with the national decentralization objective. Third, the high dependency on grant revenue should be significantly reduced, in the author’s opinion, the percentage of grant revenue can be reduced to the

range of 10-20 percent if local tax base is broadened and the tax-sharing rule revised. And grant allocation should be geared toward equalization objective.

A Proposal for Broadening Local Tax Base: Property Tax

The so-called “land and building tax” as practiced today connotes a taxation on property and many people misperceived as property taxation. In fact it is not a taxation on property value—instead a taxation on rental income. The tax rate by law is 12.5 percent uniformly across the nation. The tax base is an assessed value of rental income from land and building. Tax liability is calculated based on 12.5 multiplied by the annual rental value from land and building. As such residential properties are mostly exempted, as 70-80 percent of land and buildings in municipalities and tambons are exempted on ground of residentially utilized and that they do not generate cash income. Under the property taxation, tax liability will be the tax rate multiplied to be multiplied by property value with no exemption. Two tax principles lend support to levying tax that based on property value: *The Benefit Principle* – the property owners benefit from protection from governments and from the local public services provided (such as road, electricity, street cleaning, etc.). *The Ability to Pay Principle* – the property owners are considered to have higher income and an ability to pay for

government services. The advantage of land and building as the tax base is that they are objective materials with registration who owns the property and the property value is measurable (through market transactions or real estate valuation).

The Fiscal Policy Office, Ministry of Finance, has taken the lead in drafting a new law entitled "Land and Construction Act" to replace two taxation laws namely "Land and Building Tax Act" and "Land Development Act". In essence, the tax base on land and construction will be based on property value and the tax rates will not be uniform and local governments may exercise their judgment to adopt the tax rate within the given range. Proponents of property tax argue that by taxing on property: there will be two desirable effects. One, is the revenue effect as local governments are expected to earn significantly higher revenue, 3-4 times, from the amount collected today. And the generated revenue could be used to fund new public services for the benefit of local people, i.e. in health care and promotion and social assistance. Two, the redistributive effect from property taxation as the tax burden would fall on rich households more than poor households.

The author has taken a policy simulation study by assuming that the property taxation were already applied and based on the national household survey for 2006 to calculate the revenue amount for local government. Our

finding indicates that the revenue to be generated from property tax could amount to 91 billion baht. In Appendix A explains the dataset in which our simulation was based that include the tax rates, the estimated value of land and building-differentiated by commercially - utilized and residentially - utilized property.

A Proposal for Broadening Local Tax Base: Environmental Taxes

A number of researches have been done by several institutions that recommended introduction of environmental taxation as economic instrument for environmental conservation. Four tools are particularly stressed: a) an affluent charge on wastewater and air-pollution, b) product charge on electronic products and the buy-back scheme to promote waste reuse and recycling; c) packaging tax; and d) performance bond to be applied for large industrial enterprises that may cause catastrophic damage to environments. Those researches provide rich details in relation to an organizational sketch of tax collection and how the revenue be shared between central and local governments, the estimated revenues, and expected outcomes. Note also the Fiscal Policy Office, Ministry of Finance, has taken charge in drafting new laws entitled "Economic Instruments for Environmental Management Act" - the drafted bill

A Proposal for Amending Tax-Sharing Rule:

The author argues that there should be an amendment of the tax-sharing between central and local governments. Specifically the formula 70:30 is suggested. And the tax-sharing should cover : VAT, excise tax, personal income tax, and corporate income tax. Under the present law, the revenue share for local governments in alcohol and excise tax collection is 10 percent of the total amount and the central-government 90 percent. No share at all for personal- and corporate - income taxes. From a review of experience in Japan and China, Nordic countries, and other countries local governments are allowed to take share tax from income tax or a power to apply surcharge tax based on inhabitant income.

A Proposal for Equalization Grant

The grant allocation as practiced today in Thailand is formulated on ad hoc basis, as there is no guiding formula. We also witnessed wrong direction as specific grant has increased while the general grant reduced. Assuming that the property tax and environmental tax been introduced and that the percentage shared for local governments be 70:30 as mentioned above, then the grant amount can be significantly reduced. Perhaps the amount of grant can be in the range of 30 to 50 billion baht, or 10-15 percent of the total revenue of local governments. If so the grant allocation should serve two functions: a) as a risk-sharing mechanism in case of natural disaster; and b) as equalizing mechanism in which the local

government units that are poorly endowed and narrow tax base are entitled to receive the grant.

5. Conclusion

This paper reviews Thailand's system of fiscal transfer and proposes a program for fiscal reform with an emphasis on revenue assignment to local government to match expenditure assignment. As decentralization advances and responsibility of functions will be further transferred to local governments in the next 5-10 years, the revenue assignment rule need to be revised. The paper draws lessons from Japan and China regarding the tax-sharing and local taxation principles from local finance literature. The author criticizes the tax-sharing rule as currently practiced in Thailand as inappropriate and that high dependency on grant revenue will erode local autonomy and will cause inefficient use of money, especially, the specific grant. The proposal for fiscal reform is articulated and comprises 3 themes: First, it is important to broaden local tax base and this can be achieved by introduction of property and environmental taxation; Secondly, by amending tax or revenue-sharing rules between central and local governments, specifically 70:30 formula may be appropriate and this should be comprehensive to include VAT, excise

taxes, personal and corporate-income taxes.

Thirdly, the new design of grant amount and allocation formula proposed. ✍

Reference

Boadway, Robin 2007 **“Grants in a federal economy : a conceptual perspective,”** in Robin Boadway and Anwar Shah eds. *Intergovernmental Fiscal Transfer: Principles and Practice*, Washington, D.C: World Bank.

Mochida, Nobuki 2006 **“Local government organization and finance: Japan,”** in Anwar Shah ed. *Local Governance in Industrial Countries*, Washington, D.C: World Bank.

Patmasiriwat, Direk 2009 **“Welfare Analysis of the Fiscal Policy Package in Thailand”** “the paper presented in the Fifth National Conference of Economists, School of Development Economics, National Institute for Development Administration, October 2009, Bangkok.

Qiao, Baoyun and Anwar Shar 2006 **“Local government organization and finance : China,”** in Anwar Shah ed. *Local Governance in Developing Countries*, Washington, D.C: World Bank.

Shah, Anwar 2007 **“A practitioner’s guide to intergovernmental fiscal transfers,”** in Robin Boadway and Anwar Shah eds. *Intergovernmental Fiscal Transfer: Principles and Practice*, Washington, D.C: World Bank.

Appendix:
**Simulated Analysis of Property
Taxation in Thailand⁴**

This section presents a simulated study by assuming that property tax along the line of the newly drafted law “Land and Construction Act” was already applied. Three types of properties are subject to local taxation: a) agricultural and vacant land; b) residential properties, mainly, housing, c) commercially utilized properties, such as factory, shop houses, restaurants, and others. It should be noted that our case study do not cover all kinds of household properties - such as financial assets and durable properties not included.

Unit of analysis: Households and legal entities (including corporations) that possess farm land, residential dwelling, shop house, hotel and restaurant, factory and others. Remind also that ordinary households may own more than one type of property.

Tax Assessment and Tax Collector

The property tax is assumed according to the assessed property value and the tax

and the tax rates, which will be differentiated for 3 categories, i.e., τ_1 for agricultural land, τ_2 for residential dwelling, and τ_3 for commercially utilized land and building.

$$A = \{A_1, A_2, A_3\};$$

where A_1, A_2, A_3 denotes for agricultural land, residential dwelling, commercially utilized properties respectively. We assume there is no allowances or deductions. Municipalities and Tambon Administration Organization (TAOs) are tax collectors.

Tax rate to be applied for agricultural land is assumed to be 0.0005 of the property value. That is the owner of an agricultural land value of 1 million baht be prepared to pay 500 baht in annual tax for the municipality or the TAO that they are residing - there may be the cases that one household own more than one plot of land or one house. *The tax rate for residential land and building* is subject to 0.001 tax rate; i.e., the owner of an assessed property value of 1 million baht will be

⁴ This part of analysis is taken from the paper presented by the author in the Fifth National Conference of Economists, School of Development Economics, National Institute for Development Administration in October 2009 entitled “Welfare Analysis of the Fiscal Policy Package in Thailand”

prepared to pay for 1,000 baht annually. And *the tax rate for commercial used property* 0.005 tax rate, e.g., 5,000 baht for an assessed value of 1 million baht annually. We realize that Thai people is not accustomed to pay these taxes, hence, it may be reasonable to start with low tax rates first. The rates could be adjusted upward in later stage.

Database and Simulated Exercise: The National Statistical Office's household survey for the year 2006 (SES2006) contains 44,918 sampled households and 146,513 household members. The survey contains

information that reflects household characteristics, e.g., age of household head, occupation, urban or educational attainment, rural, household income, household expenditures and savings, and possession of land and housing, vehicle capital, and financial assets.

Table A1 presents the distribution of property by tenure ship which may be summarized as follows: 69% of households live on their own land and house, 14.6% on the rented house, and nearly 10% of households reside without pay and do not possess the property.

Table A1 : Distribution of home-ownership by tenure ship

Unit: number of households and %

Code	Frequency	Percent	Remark
1	31,045	69.11	Own land and house
2	1,439	3.2	Own house on rented land
3	945	2.1	Own house on public land
4	658	1.46	Hired purchase
5	6,558	14.6	Rented
6	492	1.1	Rented by others
7	3,781	8.42	Freely use of house
Total	44,918	100	

Table A2 indicates the distribution of dwelling by types of which 75.1% were single house, follows by row house (16.2%), town house (5.2%), and others. Table A3 reports statistical distribution of

dwelling by types of construction of which 46.4% made of cement or brick, 28.1% wood, and 23.5% a mixture of brick, cement and wood materials. NSO's survey also contains information

about the number of rooms as well which provides indicator (although imperfectly) of the size of dwelling but does not report an exact

figure of space (i.e., how many square meters of dwelling space).

Table A2 : Distribution of home property

Unit: number of households and %

Code	Frequency	Percent	Remark
1	33,732	75.1	Single house
2	7,280	16.21	Row house
3	2,328	5.18	Town house
4	1,042	2.32	Flat / apartment
5	319	0.71	Room
6	159	0.35	Slum
7	58	0.13	Others
Total	44,918	100	

Table A3 : Distribution of dwelling by types of construction material

Unit: number of households and %

Code	Frequency	Percent	Remark
1	20,854	46.43	Cement / brick
2	12,642	28.14	Wood
3	10,570	23.53	Wood and brick
4	561	1.25	Local materials
5	105	0.23	Used materials
6	186	0.41	Others
Total	44,918	100	

Another piece of information that is needed for our purpose is the valuation of properties. The NSO's survey does not directly report data on the property values, anyhow, the property value may be inferred

from the rental value of dwellings. On the national average, dwelling rent payment was found to be 1,435 baht per month and the assessed rental value 1,858 baht per month (Table A4).

Table A4 : The rental values of dwellings, urban and rural compared

Unit: baht per month

	House rent	Assessed value of house rent	
Urban	6810	22204	N
	1463.1	2256.1	Mean
	200	600	p10
	800	1000	p25
	1300	1800	p50
	2000	3000	p75
	3000	4000	p90
Rural	1018	16186	N
	1242.8	1310.8	Mean
	83	500	p10
	500	600	p25
	1100	1000	p50
	1500	1500	p75
	2500	2500	p90
Total	7828	38390	N
	1434.5	1857.5	Mean
	167	500	p10
	800	800	p25
	1200	1500	p50
	2000	2000	p75
	2800	3500	p90

Note: n = number of sampled dwellings

{p10,p25,p50,p75,p90} refer to the percentile values 10, 25, 50, 75, 90

Table A5 : Average rental values of dwelling by income deciles

Income decile	Rental value of dwelling
	(baht/month)
1	840.9
2	1005.1
3	1203.4
4	1387.7
5	1599.4
6	1833.6
7	2048.3
8	2351.0
9	2867.9
10	4098.3

Table A6 : Percentage of properties that are commercially utilized, urban and rural

	residential dwelling	commercial & residential	
	units	utilized Units	Percent
○ Urban	21,045	6,894	24.7%
○ Rural	14,230	2,749	16.2%
Total	35,275	9,643	

Note: figures refer to unit.

The NSO's dataset contains also information whether property is used for both dwellings and commercial purposes or not. Table A6 indicates that 24.7% of dwelling in urban area were used for commercial purpose, and 16.2% in the rural area.

agricultural land value whose mean value stood at 566,528 baht and the median value of 210,000 baht per household. The author warns that these statistics should be viewed with caution: these figures can be underestimated, especially when taking a close look at the low-end values.

Table A7 reports statistical distribution of

Table A7 : Statistics indicate the distribution of agricultural land value

Unit: baht

agricultural land value				
	Percentiles	Smallest		
1%	2000	200		
5%	10000	200		
10%	30000	200	Obs (unit)	16983
25%	90000	300	Sum of Weight	16983
50%	210000		Mean	566528.3
		Largest	Std. Dev.	1706270
75%	500000	4.00E+07		
90%	1000000	4.50E+07	Variance	2.91E+12
95%	2000000	5.00E+07	Skewness	20.18
99%	6000000	1.00E+08	Kurtosis	826.40

SES2006 does not provide direct information which households own those commercially utilized properties, however reports household income by sources of income that are broadly grouped under: a) wage income, b) farm income, c) business and non-farm income; d) property income; and e) transfer income. From this dataset, 42.4% of the households earned income from non-farm and business activities. In this connection, the author assumes that those households who possess such properties are subject to taxation at the 'commercial' tax rate. To infer the tax effects on the national-scale, we need to rely on the sampling weights in order to blow the figures into the national scale.

Tax Simulation Exercise: I.

Agricultural Land Tax.

The tax rate (τ_1) is assumed to be 0.0005 (or .05%) which is very low by any standards. This rate is multiplied to the agricultural land value is then amounted to tax liable to households who possessed agricultural land (37.8%). The author notes that lower ends of the tax liability are unbelievably very low (less than 100 baht per household); for practical reasons we shall assume there was a minimum tax of 100 baht, in other word tax payment = minimum of {assessed tax value, 100}

The mean value of tax liability was found to be 310 baht per household with the

median value of 105 baht. On the high ends of the tax liability, for instance, at the 95th percentile 1,000 baht per year and the 99th 3,000 baht per year tax payment. Taxes levied on agricultural land as illustrated in this exercise are rather low. The estimated revenue was 2,115 million of baht-- according to the 2006 assessed values: It should be noted that these figures have to adjusted upwardly in the future as the market value of agricultural land tend to increase over time.

Tax Simulation Exercise: II. Taxes on Dwellings, Residential - and Commercial

The tax rates to be applied for residential properties and commercial properties are: $\tau_2 = 0.001$ (or 0.1%), and $\tau_3 = 0.005$ (or 0.5%). On average the tax payment would amounted to 892 baht per household and generated 12,613 million baht in term of local government revenue with an estimated 14.2 million units of household that paid tax under this category.

In total, the revenue proceeds from 4 types of taxation would amounted to 91,318 million baht (Table A8).

Table A8 : Estimated revenues to be generated from property taxation

Type of taxation	frequency Unit	Avg tax due (baht/year)	Percent of 18 million units of HH	Tax revenue (million baht)
Tax1_agrland	16983	310.3	37.8%	2,111.8
Tax2_residentially used housing	35275	892.3	78.5%	12,613.3
Tax3_commercially- utilized	9643	12134.2	21.5%	46,888.7
Tax4_business enterprises	6109	12134.2	13.6%	29,704.0
				91,317.9