Taxes on real estate- an effective economic management tool in many countries worldwide and lessons for Vietnam

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Abstract. The state budget is a crucial political task for governments, with taxes being a significant source of revenue. In developed nations, property taxes constitute the primary source in total tax revenue and local budgets. Vietnam currently does not levy property taxes on real estate but only imposes taxes on agricultural land use and non-agricultural land use based on very low predetermined land values. Introducing property taxes not only generates a substantial and sustainable source of revenue for the budget but also helps curb speculation in land and real estate, promoting transparency in asset ownership. Due to a lack of comprehensive and standardized legal, technical, and economic statistics, and the rapidly changing market prices for land and real estate, formulating property tax laws in Vietnam has been challenging. Despite significant differences in conditions compared to other countries, property taxes are deemed essential in the near future. Researching theoretical foundations and the experiences of other nations in real estate tax laws, especially those undergoing economic transitions like Vietnam, is crucial. It is known that this tax has been under thorough examination to gradually develop, enact, and implement it in line with practical needs and, most importantly, to garner public and societal consensus.
Keywords: real estate; real estate prices; property tax; non-agricultural land use tax; property tax.

Introduction

According to common practices worldwide, revenue from real estate is a significant source for local budgets, as real estate assets are immovable across regional boundaries. Although the degree of dependence on local property taxes varies, property taxes typically constitute a substantial portion of tax revenues in many countries. The most prevalent property tax is real estate tax, where some governments separate real estate into residential and land categories, corresponding to two distinct taxes: land tax and property tax.

In many countries, the purpose of levying property taxes is to curb speculation in land and real estate and promote transparency in asset ownership. In Vietnam, the government currently only imposes taxes on non-agricultural land use at a very low symbolic value, without taxing land or real estate based on market prices. This has led to the open speculation of land and housing,

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even during the real estate development process. The consequence is an artificially inflated real estate market, operating without healthy regulations and prone to collapse without timely government intervention.

Research indicates several challenges and obstacles in legal, technical, and economic aspects in drafting and implementing real estate tax legislation in Vietnam, including:

- Lack of a comprehensive and consistent database on the quantity of real estate, ownership rights, usage, and cadastral values of all real estate for tax calculation.
- Inability to predict the economic consequences of implementing new tax rates.
- Lack of detailed regulations on tax incentives (exemptions), as well as the rates and brackets for such incentives.
- Uncertainty about how the new tax rates will relate to costs for public services such as electricity, water, and the taxable infrastructure of real estate.
- Whether the implementation of new real estate tax laws will necessitate reforms in personal income tax and corporate income tax.

Literature review

Research on urban real estate management indicates that in most countries, municipal governments prefer the leasing method over sales to protect the interests of the city. Therefore, they often conduct city land valuation, while land and property taxes are based on the market value of real estate [1]. One of the significant challenges for countries like Vietnam is determining the market value of real estate. In real estate economics, various values such as estimated value, conventional value, residual value, cadastral value, market value, etc., are considered [2, 3, 4, 5]. Many scholars propose mathematical models to determine cadastral values as the basis for property taxation [6].

In his study, Professor Petr Graboviy suggests that the appropriate method for real estate valuation is the general valuation method to determine taxable income, as it is the market value of real estate in all developed economies [6]. However, during the transition period, residual value, estimated value, and cadastral value are often used for property taxation.

In Vietnam, construction costs and the cost components of real estate, excluding land value, are determined using two approaches: the comprehensive construction cost approach (including methods adjusted for construction price indices and similar construction methods) and the cost component approach (including three cost determination methods) [7] [8].

John Norregaard, through his research, has pointed out that property taxation allows the state to redistribute income from the rich to the poor. However, he also warns that while property taxation is effective, it may not be a widely popular method to reduce social inequality [9].

According to Vietnamese researchers, the budget scale is currently limited, but there is a constant need for expenditure, especially for ongoing expenses and development investments, which will remain substantial in the coming years. In recent times, the budget has not achieved the necessary balance, with state budget expenditures still around 4.5% of GDP. State budget revenues and expenditures are revealing many shortcomings [10].

Meanwhile, property market prices in emerging markets like Russia and Vietnam have increased significantly during the construction period. Apartment prices during construction and completion in Moscow increased at least 2.4 times (Sparrow Hills project) and up to 3.6 times (New Ostozhenka project) before the implementation of property tax laws [11].

Property tax in Vietnam is currently undergoing draft legislation research. Some researchers propose implementing a second property tax, while others argue that it is unreasonable [12]. In Russia, the property tax law enacted in October 2014 is implemented in two phases. Phase 1 (2015-2020) calculates property tax based on cadastral values in 28 federal subjects. In the other 61 federal subjects, the basis for determining personal property tax is the residual value of real estate. In Phase 2 (from 2020 onwards), in all 89 federal subjects, the basis for determining personal property tax is the cadastral value of real estate [13, 14]. The methods, standards, and procedures for determining cadastral values have been uniformly issued in Russia [15].

Materials and methods

In developed countries, property tax is a primary source, accounting for 40-50% of total tax revenue in urban areas such as Mexico, Brazil, India, Indonesia. It typically comprises 15-40% of local budget revenue. However, in Vietnam, this type of tax only contributes about 0.7% to the total local budget.

To ensure the stability and sustainability of local budgets, it is essential to rely on property tax (real estate tax). Property tax significantly influences all social production activities, especially in the real estate market. It is crucial to differentiate between two distinct types of property taxes: house tax and land tax.

Table 1: Tax rates on real estate and real estate rental prices in selected countries (unit: % of property appraisal value/year) [1]

Tax Rates	USA	Canada	Germany	Finland	Switzerland	Portugal
Property Tax Rates (%)	1,0-3,0	0,5-1,0	1,5-1,8	1,2	1,5	1,0
Rental Prices of Real Estate	7,0-8,0	4,0	6,0	4,0-5,0	6,0	5,0

Table 2: Proportion of property tax in total budget revenue from taxes in selected countries, % [1]

Tax	USA	UK	France	Germany	Japan
Tax Revenue as % of Total Budget (%)	65	36	45	45	33
Proportion of Property Tax (%)	50	36	25	15	8

According to data from the UK government, the majority of UK households own real estate valued below £250,000. For most people, the tax rate is approximately 0-2%. Subsequent tax rates mainly target individuals with moderate to high incomes and the super-rich in the UK. Additionally, through tax policies, the UK government discourages real estate speculation by imposing higher taxes on second homes compared to primary residences. Taxes for this category are calculated earlier and are higher than for equivalent first homes.

Experience from Russia indicates that it took nearly 15 years to develop and enact property tax legislation, proposed in 2001 and enacted in 2014, taking effect in 2015. The property tax law stipulates two implementation phases: Phase 1 (transition phase, 2015-2020) and Phase 2 from 2020 onwards.

1) Phase 1 (5-year transition phase)

Personal property tax is calculated based on cadastral values (values used for taxation, closely related to market values) of real estate in 28 federal subjects.

The basis for determining personal property tax in the other 61 federal subjects is the residual value of real estate (construction cost after depreciation, independent of location) until 2020, determined by local authorities.

In the first four years of applying cadastral values to determine property tax, the tax amount will gradually increase based on a factor: in the first year - 0.2, the second year - 0.4, the third year - 0.6, the fourth year - 0.8, reaching the maximum in the fifth year.

2) Phase 2

- From 2020, in all 89 federal subjects, personal property tax is calculated based on the cadastral values of real estate.

The tax rate is a key factor influencing the tax amount. The tax rate is expressed as a percentage, depending on the cadastral value of the taxed object and varies by region and urban area, with different tax rates applied. The law also regulates deductions from the tax and provides 15 categories of citizens who enjoy tax benefits, as well as retirees.

As known, market prices fluctuate depending on various economic factors, government fiscal policies, etc. Cadastral values are close to market prices because they consider other factors such as property characteristics, location, technical and social infrastructure, market prices of similar properties, and market factors such as supply, demand, and prices.

One of the most challenging issues in implementing property tax legislation is determining the cadastral value of real estate. The current Federal Standards require the cadastral value of real estate to correspond as closely as possible to its objective market value. To achieve this, various mass appraisal methods are used, and if these methods cannot be applied, the market value of the property must be individually calculated. Thus, determining the cadastral value of a property is not much different from the independent appraisal procedure, such as when registering a mortgage.

Mass appraisal methods are designed to create a model with distinct groups of real estate highlighted in its structure, where properties with similar technical characteristics and pricing factors are combined. Consequently, the cadastral value of a specific property will be determined based on the group to which that specific property belongs.

To determine pricing groups as clearly as possible, Rosreestr officials, responsible for this matter, continuously monitor the real estate market in the region. Comparison, profit, or cost methods are used to determine pricing groups. With sufficient information about signed real estate transactions, appraisers use the comparison method. If there is not enough objective information, then, at the discretion of the appraiser, the cost or income method will be used, which may be more expensive.

The cost method is most commonly used for real estate under construction. This method calculates the cost of construction materials, land acquisition, connection with key technical communication information, as well as other costs related to building a specific facility.

The income method in real estate appraisal requires collecting information on rent prices, regular maintenance and operating costs of the property, as well as other market rental characteristics. Based on this data, the cadastral value of the property is formed.

Thus, the implementation of property tax legislation in Russia in 2 phases, with careful preparation and research, has yielded positive results, contributing to increasing municipal budgets and preventing land speculation without causing social disruption.

A study on the budget structure of Vietnam from 1991 to 2020 shows that the average corporate income tax (excluding crude oil) has the highest proportion (16.64%), followed by domestic value-added tax (15.61%), domestic special consumption tax (6.45%), and personal income tax ranking fourth, with 3.36%. The lowest average proportion is for non-agricultural land use tax, accounting for only 0.27%. Among these taxes, only non-agricultural land use tax has remained nearly unchanged.

Current Vietnamese legal regulations only impose taxes on agricultural and non-agricultural land use without taxing construction works on land. Moreover, the taxed land value is

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conventionally determined without being tied to the market. Specifically, according to the Land Law of 2013, the Vietnamese government issues mainly taxes, fees, and charges in the field of land as follows:

- Agricultural land use tax and non-agricultural land use tax;
- Land use transfer tax;
- Income tax from land use transfer (if applicable);
- Various fees in land management, land use, such as registration fees, land use fees.

Among them, the price of 1 square meter of land for tax calculation is the land price according to the designated land use purpose set by the provincial People's Committee (Land Price Table). This prescribed price is significantly lower than the market transaction price.

The tax rate for non-agricultural land use tax with the highest price is applied to residential land, following a progressive tax rate as follows:

Table 3. Highest non-agricultural land use tax rates for residential land [1]

Tax Level	Taxable Area (m^2)	Tax Rate (%) (land price according to the land price table)
1	Within the limit	0,03
2	Exceeding but not more than 3 times the limit	0,07
3	Exceeding 3 times the limit	0,15

Table 4. Budget estimates from real estate for some major cities, in million VND [16]

No.	Indicator	Hanoi City Budget Estimate 2013	Ho Chi Minh City Budget Estimate 2013	Da Nang City Budget Estimate 2013	Can Tho City Budget Estimate 2014
1	State budget revenue in the area	161.475.000	236.830.000	11.944.260	7.235.000
2	Revenue from land use, land and water rent, sale of houses under state ownership	13.415.000	6.704.000	1.974.000	380.000
3	Percentage % of real estate revenue on state budget revenue in the area	**8,3%**	**2,83%**	**16,5%**	**5,25%**

Among the four major cities under the Central Government, Da Nang has the highest proportion of revenue from real estate in the total local state budget (16.5%).

Table 5. City budget revenue from real estate in Da Nang in 2013, in million VND [16]

	City budget revenue from real estate	1,974,000
1	Revenue from land use rights	1,800,000

2	Land and water rent	74,000
3	Revenue from the sale and lease of houses	100,000

However, a detailed analysis of the sources of revenue from real estate in Da Nang shows a serious imbalance between money from land use and money from land and water rent. Out of the total of 1,974 billion VND from real estate, the money from land use is 1,800 billion VND, accounting for 91.2%, while the money from land and water rent is only 74 billion VND, accounting for 3.7%. The heavy dependence on revenue from real estate on land use money leads to the fact that when the real estate market declines, the city's budget revenue faces significant challenges. A city budget relying on revenue from land use in this way will not ensure long-term stability.

This study uses a comprehensive and synthetic analysis method for most of the issues and data presented.

The method used here is a qualitative or quantitative method, including the combination of both, as the topics discussed here all originate from an object: real estate prices, property taxes, and finance.

The quantitative method of the article is based on the analysis of reports on the budgets of major cities, published data from the General Statistics Office, news agencies, and the Ministry of Finance. The qualitative method of the article is based on the analysis of real estate taxes derived from studies on real estate prices and urban economics.

Result

Experience from many countries shows that real estate property tax is a crucial tool for the state's economic management and regulation. It serves as a significant source of revenue for local budgets, and its impact extends to curbing land and real estate investments, as well as addressing income inequality between high and low-income individuals.

In Vietnam, the agricultural and non-agricultural land use tax is currently calculated based on the allocated land area and the land prices specified for different purposes by the provincial People's Committees (in the Land Price List). The prices set in this non-market-oriented framework are significantly lower than the market transaction prices and contribute only a small portion to the overall local budget. Although not legally binding, these specified land prices are considered a reference point for determining specific land prices when the state assesses land use fees for projects such as residential development, production, and other business activities. The substantial discrepancy between specific land prices and those in the Land Price List is a major cause of disputes and conflicts in various real-life situations, which legal frameworks have not adequately addressed. Additionally, the rapid urbanization and economic growth in Vietnam have led to a considerable increase in urban land prices within a short period, surpassing the government's forecasts and exacerbating the issue.

The historical context before 2003 (prior to the enactment of the first Land Law) reveals a large number of land parcels and properties without land use rights certificates, even though transactions such as buying and selling and exchanging continued to occur. The Land Law of 2003 aimed to create legal conditions for legitimizing such land parcels and properties. While there is no comprehensive statistic, it is evident that a significant portion remains outside the full management system of the state.

Vietnam currently lacks a unified and comprehensive system for statistical information on real estate, encompassing legal, technical, and economic aspects. The government is aware of the challenges and is taking steps to address them. Initially, households are self-reporting information on real estate, which localities aggregate to construct a database. Subsequently, there will be an inventory, rectification, and accuracy enhancement of the information.

Although Vietnam's conditions differ significantly from other countries, real estate property tax is an essential component that requires careful study, examination from various perspectives, and phased implementation to ensure its suitability. Crucially, gaining public and societal consensus is vital.

Discussion

The theoretical basis for real estate valuation indicates that the price of real estate depends on the purpose of the valuation. In other words, a piece of real estate can have different values based on different valuation purposes. Therefore, when calculating real estate property tax in conditions where market data is limited and inaccurate, the appropriate valuation method is a general valuation method to determine taxable income. This is because, in all market economies, it is considered the market value of real estate [6].

In this case, the valuation object is not an individual real estate property (house, structure, land, etc.) but a collection of real estate properties. Therefore, all real estate properties will be grouped based on some uniform criteria (typically including similar properties with similar functions).

The next step involves "describing the technical characteristics" of the group of real estate properties to be valued. From numerous supply (m) and demand (n) factors, the appraiser needs to select the most important factors and convert this selected set of factors into a mathematical equation.

The valuation is carried out using one of three types: the addition model, the power model, or a combination of both.

The addition model is expressed as follows:

$$\mathbf{S = b_0 + b_1X_1 + b_2X_2 + ... \, b_iX_i + ... \, b_pX_p} \quad \mathbf{(1)}$$

where:

- **S** is the dependent variable (in this case, the price),
- $\mathbf{X_1, X_2, ..., X_n}$ are independent variables (factors influencing the price),
- **p** is the number of independent variables,
- $\mathbf{b_0}$ is a constant,
- $\mathbf{b_1, b_2, ..., b_p}$ are coefficients of the independent variables.

Note: The "+" sign represents algebraic addition, and the sign within $\mathbf{X_i}$ can be any.

The basis for the addition model of general valuation is as follows:

1. Choose a real estate property with the most typical characteristics (possibly minimal size, average area, basic materials for this type of structure, necessary technical systems). The price of this property is considered as a constant $\mathbf{b_0}$ (minimum price).

2. The appraiser **S** selects the technical characteristics of the model (meaning a specific value type) and $\mathbf{X_i}$ (influencing factors, where $\mathbf{p \le n}$ and $\mathbf{p \le m}$. Then, $\mathbf{b_0}$ is adjusted for the value of the price adjustments, each of which is \\$\mathbf{b_iX_i}$.

The power model (multiplicato) is expressed as follows:

$$\mathbf{S = b_0 \ x \ X_1^{b1} \ x \ X_2^{b2} \ x \ ... \ bi^{Xi} \ x \ ... \ b_{i+1}^{Xi+1} \ ... \ X_p^{bp}}$$

The combined model is a model that combines some components under the addition condition (i.e., they are added together), and the remaining components under the power condition (i.e., they are multiplied together several times).

Real estate property tax (also known as property tax) is a significant tax revenue, often accounting for a high proportion of the local budgets of provinces and cities worldwide. Increasing revenue from property taxes to local budgets will regulate and optimize budget allocations, such as reducing corporate income tax to attract and encourage businesses to invest and expand their operations in the region. Indirectly, through property taxes, businesses will create more employment opportunities for local labor and increase social benefits for the population, and so on.

Conclusion

Researching the theoretical foundations and experiences of real estate tax laws in various countries, especially the experiences of nations with transitioning economies like Vietnam, is crucial. In countries undergoing economic transitions like Vietnam, imposing property taxes requires a phased and multi-step approach. Drafting and enacting property tax laws are essential steps that must be supported by the establishment of theoretical foundations and databases to determine property values. This is one of the most challenging and debated aspects during implementation. Resolving this issue demands a systematic and in-depth development of a property valuation system, accepting nominal property values for initial tax calculations. Only when property valuation aligns closely with market values can taxes be accurately levied, ensuring fairness for all citizens.

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