

**Policies and Mechanisms on Land Value Capture:  
Taiwan Case Study**

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## **Abstract**

This paper reviews government policies on capturing and distributing the profits of land value increase in Taiwan. Based on the political ideology of the country's founding father, Dr. Sun Yat-sen, the government adopted two groups of techniques to carry out value capture policies: land-related taxation and land use regulations. Land taxation techniques capture profits after land values had changed, while land use regulations capture the potential profits based on the predicted land value changes in the future. These techniques were developed over the past forty years to achieve economic, social, and political objectives. This paper examines these techniques in the context of different economic, political, and social circumstances to better understand the initiation and the effectiveness of these policies. Most of the techniques were successful in certain time periods, but became less effective or even contradictory later. It is a challenge for the government to use the right techniques to capture the tremendous wealth created from rapid urbanization. It is also a challenge to reform these policies when they are no longer effective. The comparisons of these value capture policies would be a good reference for policy makers in other countries to undertake future actions on capturing and distributing benefits from land development.

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## Contents

<b>Land Price Increase in Taiwan</b>	1
Table 1: Housing Price Index and Economic Growth in Taipei (1970 = 100)	1
Causes of High Land and Property Prices	2
Table 2: Taiwan's Economic Growth	2
1. Land Policy and Economic Growth Objectives	3
2. Tax Policy and Social Equity Objectives	3
3. Inflexible Land Supply and Ineffective Value Capture	3
4. Private Capital Investment	4
5. Money Supply	4
6. Social Changes	5
7. Personal Savings	5
8. Land Use Regulations	5
9. Infrastructure Investment	6
10. Manipulation of Market Value by Developers	6
<b>Political Ideology of Capturing Land Value Increment</b>	7
Land Value Capture Mechanism—Land Taxation	7
The Role of Land Related Taxes	7
Table 3: Property Tax and Prefectural and Municipal Revenues	8
1. Land Value Tax (Land-Holding Tax)	9
2. Land Value Increment Tax	10
3. House Tax	11
4. Vacant Land Tax	11
Value Capture Mechanism: Land Use Regulatory System	12
Regulatory Framework in a Developing Economy: Land Reform (1950s-60s)	13
Regulatory Framework on Land Use Controls and Developers Contribution: (1960s-90s)	13
1. Block Land Acquisition	14
2. Land Consolidation	14
3. Comprehensive Plans	15

4. Industrial-Commercial Mixed-Use District	15
5. Agricultural Land Conversion	15
Comparisons of Land Contribution Mechanisms	15
Table 4: Comparisons of Land Contribution Mechanisms	16
Lessons for Other Countries: Implications to Future Policies	16
1. Taxation was a Critical Factor in the Early Stage of Economic Growth	16
2. Land Value Increment Tax as a Fiscal Source at Local level	16
Table 5: Land Value Increment Tax (LVIT) as Percentage of Local Revenues	17
3. LVIT as a Social Equity Tool - Sharing Benefits with the Society	17
4. Low LVIT Effective Rates Showed Extensive Flaws in Capturing the Windfalls	17
Table 6: Assessed Value Increment and LVIT Collection, 1979-1993	17
5. Legally Escaped Capital Gains from Land Sales	18
6. Mismatch of LVIT Assessment and Market Cycles Encourages Speculation	18
7. Tax Rates Favor of Short-term Speculation	19
8. Capturing Capital Gains from Land Transactions	19
9. Distributing Benefits to the Public	19
10. Controlling Land Speculation	19
11. Capital Gains Tax and Land Value Increment Tax	20
Table 7: Individual Income Tax Rates	20
<b>Taiwan's On-going Policy Reform</b>	21
Framework for Future Study	21
1. Wealth disparity and land value capture	22
2. Social agenda vs. revenue tool	22
3. Tax burden and fairness	22
4. Speculation control	22
5. Institutional framework	23
<b>End Remarks</b>	24

End Notes	25
Appendix: Evolution of Taiwan's Land Value Increment Tax	26

## Policies and Mechanisms on Land Value Capture: Taiwan Case Study

Land value in Asian cities has significant implications for the progress of economic growth. As a significant living cost factor for a city's residents, land value often affects a government's social and political agenda. As a significant cost factor for industry, land value affects long-term investments for production and profit competitiveness. This research studies the magnitude of land and housing price increases in Taiwan and tries to learn what the government could do to capture and share the profits created by the so called "unearned income" from land value increases.

Taiwan was selected for this case study for several reasons: 1) the examples of land value increase were significant over the past forty years; 2) the cases were not unique among Asian cities; and 3) a unique taxation system developed according to the constitution would be of interest to many countries dealing with land value increase and value capture.

### Land Price Increase in Taiwan

Taiwan is one of the most populated areas in the world. The population is over 21 million, and the total land area is about 36,000 KM<sup>2</sup>, or 14,000 square miles. Over 51.5 percent of the land is mountainous and almost uninhabitable. Due to population growth and economic development, the demand for land to be used for residential, commercial and industrial purposes has become intensively high during the past three decades.

Housing prices in Taipei City, the capital city of Taiwan, went up almost 25 times (Table 1) from 1970 to 1993. The most significant increase occurred from 1985 to 1990 when housing price went up almost five-fold, while the national income increased only two and one-half times. During the 1980's, housing prices went up much faster than the increase in per capita income<sup>1</sup>.

**Table 1: Housing Price Index and Economic Growth in Taipei (1970 = 100)**

Year	Housing Price Index*	Per Capita Income**
1970	100.00	100.00
1975	225.21	247.22
1980	589.08	598.61
1985	537.82	831.11
1990	2621.85	2059.17
1993	2477.99	2742.22

**Source:** \* Housing Price Index from Huang, S.H., Evaluation and improvements of Taiwan's Land Value Increment Tax, (in Chinese), Hwa-Tai Books Co., 1995

\*\* Per capita GNP compiled by author from Taiwan Statistical Data Book 1997

Since 1970, land prices have increased substantially through three major cycles. The first market cycle occurred from 1973 to 1975. During this time of the first energy crisis, land prices increased nominally by 31.1 percent, 24.9 percent and 21.3 percent respectively. This increase was offset by high inflation rates caused by the crisis of import oil. In the same period the consumer price index (CPI) also increased substantially. In 1974, for example, housing prices actually fell by 10.98 percent in real terms.

The second price increase happened between 1979 and 1980; the price of housing increased by 41.9 percent and 53.4 percent and the CPI increased by 7.8 percent and 19 percent respectively. This significant upward cycle lasted only two years. Beginning in 1981, housing prices started to fall, but the CPI continued to increase by 16 percent. The downward cycle of housing prices remained low throughout the 1980s until 1986.

The most serious skyrocketing price increases in housing started in late 1986. Prices increased 79.9 percent and 65.9 percent respectively in 1987 and 1988. The CPI increased only 0.5 percent between 1986-1988, and increased 8.7 percent between 1988-1990. Therefore, the relative prices of land, housing and other goods significantly changed during this period.

The efficiency of the economic system in major cities was the major driving force behind the rising land prices. Individuals and institutions from public and private sectors gained access to the land market and learned how to invest as well as to speculate. In the capital city of Taipei, for example, the land price increase in the urban fringe areas was higher than the price increase inside of the city. Even the price of agricultural land in remote areas was driven up to an unreasonably high level. Rising agricultural land prices made continuous farming unprofitable.

As land prices continued to move upward, the consequences of this trend began to affect many aspects of the economy at both the micro and macro levels. Long-term impacts on government efficiency, public and private investments, and income distribution have evolved into critical political and social issues in recent years.

### **Causes of High Land and Property Prices**

Increases in the price of land are primarily attributed to the island's rapid economic growth. Per capita income grew from US\$192 in 1955 to US\$11,315 in 1995 (see Table 2.) The agriculture sector shrank from 29 percent of total GDP in 1955 to 3.5% in 1995. Economic structural change and population and income increases all had direct influences on the demand for land. In addition, strict land use policies and ineffective tax policies that were incapable of regulating land supply and discouraging speculation gave further inducement for land prices to move upward.

**Table 2: Taiwan's Economic Growth**

	<b>Per capita Income US\$</b>	<b>Saving/ GNP (%)</b>	<b>Agriculture/ GDP (%)</b>	<b>Industry/ GDP (%)</b>	<b>Service/ GDP (%)</b>	<b>Trade Balance (US\$M)</b>	<b>Gini Coefficient</b>
1955	192	14.6	29.1	23.2	47.1	-78	N/A



1965	203	20.7	23.6	30.2	46.2	-106	0.323 (1966)
1975	890	26.7	12.7	39.9	47.4	-643	0.312
1985	2,992	33.6	5.8	46.3	47.9	10,624	0.290
1995	11,315	25.8	3.5	36.3	60.2	8,109	0.318 (1994)

Source: Taiwan Statistical Data Book, 1996, Council for Economic Planning and Development

### 1. Land Policy and Economic Growth Objectives

Economic policies have been closely related to land policies in Taiwan for the past forty years. With scarcely available land for a rapidly growing population, land has been a highly demanded source for many competing purposes.

The first example of integrating land policies into economic policies happened in the 1950s when agriculture production was the primary source of income. Government's top priority was to raise farmers' income and to balance income distribution between landlords and tenants. A land reform program was implemented to reduce rent for tenant farmers, to redistribute land, and to release public land to farmers. The land reform program not only improved agricultural productivity, but also diverted extra income from landlords into industrial investments.

The land reform program, enabled by the Statute of Equalization of Land Right, 1954, had achieved both economic and social objectives. The Act encouraged private and public land to be sold to tenant farmers. Once a tenant received the land, secured tenure gave incentives to raise productivity as well as income. On the other hand, original landowners who had sold their land to the tenants received payments which were diverted into industrial development. Both the landlords and the tenants benefited from the land reform program for many years. This successful land policy built a solid foundation for future economic development.

### 2. Tax Policy and Social Equity Objectives

In the 1960's, land taxation and urban land management systems were formalized to stabilize revenue sources and to manage urbanization. Land became a competitive and scarce resource and land speculation began to cause political and social concerns. The 1954 Statute of Equalization of Land Rights set the foundation for land taxation in four areas:

- 1) fair assessment of land value;
- 2) taxation according to declared value;
- 3) government optional purchase at declared value; and,
- 4) public enjoyment of future land value increment.

The Equalization of Land Rights set the guidelines for Taiwan's land taxation law. The land tax law was passed in 1977 to give enforcement power to collect local revenues. The tax law defined the revenue base and the rates of Land Value Tax (LVT) and the Land Value Increment Tax (LVIT). These two types of taxes were developed to establish local revenue bases and to affirm the capacity to capture land value gains. Although the Land Tax Law was

developed as a revenue tool, its implementation had strong implications for the social equity issues emphasized in the Statute of Equalization of Land Rights. The ambiguity of two different policy objectives left tremendous opportunity to interpret the law's implementation in different ways. Consequently, using LVIT to control speculation was proven to be ineffective, and, in many cases, was criticized as a failure by scholars and the general public.

### 3. Inflexible Land Supply and Ineffective Value Capture

In the 1970's after the energy crisis, a national land planning system was developed to regulate land use for better living quality. Urban and non-urban lands were regulated for economic needs. Urban land was regulated by the Urban Planning Act of 1973 (first enacted in 1964) and non-urban land was regulated by the Regional Planning Act of 1974. Special import and export zones were established to facilitate international trade. Taipei City introduced a vacant land tax in 1968 to control speculation, but the tax was later abolished in 1974 due to the world recession

In the 1980's, economic growth was rapid and personal wealth grew significantly. Per capita income grew from US\$890 in 1975 to US\$2,990 in 1985. Personal saving reached its highest point in the mid 1980's (Table 2) due to successful foreign trade. To balance economic growth and living quality, environmental programs were initiated. Infrastructure investment continued to increase and environmental review processes continued to be strict. Policies to increase infrastructure investment stimulated land development and land prices. Strict environmental review processes limited land supply which also triggered land price increases. The ineffectiveness of the LVT and the LVIT fairly capture the profits from land sales further encouraged land speculation. To remedy the LVIT deficiency, the level of assessed land values were adjusted to be closer to market values. In the 1980's, land value had become a major cost of industrial production.

The slowdown of the world economy in the late 1980's forced Taiwan to put together a stimulus plan in the 1990's that could attract private investment and raise world trade competitiveness. Land policies to loosen up urban land regulations for more flexible land supply were carried out. Land development processes became less stringent. Special districts in urban areas were identified to provide even more flexibility for land use. As the increase in land prices slowed down, revenues from LVT and the LVIT consequently decreased. During this period, because of the effort to establishing local autonomy and the lack of inter-governmental funds from the central government, new revenues sources at the local level were explored. Special land development projects with negotiable developers' contributions were applied to urban and non-urban cases.

### 4. Private Capital Investment

A trade surplus took effect on the domestic economy in the late 1970's. Increasing private capital formation resulting from an international trade surplus was injected into the land market and drove land prices up. The foreign trade reserve of Taiwan has been among the world's highest. With limited channels for private investors to invest in the stock market or other

businesses, private funds flew into the land market. Besides, purchasing land and housing to pass from one generation to another had been an important tradition in Taiwan. With enough cash reserves, entering the real estate market became a high priority for everyone.

## 5. Money Supply

Taiwan's central bank's money supply was a unique contributing factor to high land prices. Comparing the cyclical behavior of land price movements, money supply played a consistent role in the cycles. According to the results of several studies, the change in the growth rate of the money supply was the major cause of the skyrocketing increases in land and housing prices. A study shows that when M1B<sup>2</sup> increases 1 percent, housing prices will increase 0.9-2 percent in the following year. M1B generally refers to the net currency of all sectors besides financial institutions plus saving deposits. From the available data, the periods of high growth rates of M1B did coincide with periods of high growth rates in housing prices, with a lagging period. The high growth rates in the money supply were caused, to a large extent, by Taiwan's large trade surplus and the government's mismanagement of macro-economic and monetary policies.

If land speculators have easy access to bank loans with low borrowing interest rates, the money supply will further fuel land prices to move upward. If the banking industry actually participates in land investment, the oversupply of money in the land market will create an even more extraordinary effect on prices. As mentioned earlier, one of the most significant land price boom cycles was between 1986 to 1988. Prices increased 79.9 percent and 65.9 percent respectively in 1987 and 1988. The money supply annual increase rates were 51 percent (1986), 37 percent (1987), and 24.4 percent (1988). Compared to other Asian countries, Japan's money supply annual increase rates were 10.4 percent, 4.8 percent, and 8.6 percent for the same period while Singapore's rates were 11.8 percent, 12.3 percent, and 8.4 percent<sup>3</sup>.

Public demand or government policies on monitoring the role of money supply in land market operations have seldom been publicly debated. Bank reserves, rediscount rates, and bank deposit interest ceilings are some of the measures that were overlooked by government and the public to control land price inflation in a rapid economic growth period.

## 6. Social Changes

Social and family structure changes also affected the demand on land and housing. The growth in the population and a trend toward smaller households, coupled with a rising level of disposable income further triggered the demand for residential land.

## 7. Personal Saving

Personal saving is one well-known factor affecting land and housing prices in Asia. Purchasing land and real properties requires sufficient amounts of capital for down payments. Personal savings is the major source of down payments used to enter the land market. The saving rates<sup>4</sup> began to climb as the economy started to grow in the 1950's. The savings rate reached its highest point in mid 1980s (33.6 percent of GNP in 1985 and 38.5 percent in both 1986 and

1987.) After the 1986-89 cycle of skyrocketing land prices, the savings rates declined from 1990 to 1993 (Table 2.)

## 8. Land Use Regulations

Land use regulations are primarily designed to maintain a safe and comfortable living environment. They can become powerful tools to control the supply of land when used to limit the types, the intensity, and location of certain land uses in urban areas. Strict land use rules are often directly associated with the inflexibility of land supply. As economic structures change rapidly in cities, new land use regulations will be needed to facilitate new economic activities. Strict regulations inhibit new land uses which will means less land will be available to meet new demands from new activities.

Another example of land use regulation is agricultural land conversion and urban fringe development. In Taiwan, agriculture production reduced its role in the GDP from 29 percent to 3.5 percent in recent decades. Land for agricultural use has not been able to convert flexibly to support the need for industrial and urban uses. The need for allowing land to be used for urban activities is strong. On the other had, idled agriculture land has not been able to support the need in urban areas. Such regulatory constraints prevented an effective land supply system in the city and suburban areas. As a result, illegal and informal conversions of land use became the most profitable channel to accumulate wealth. Such illegal or informal speculation on land values and the unaccountable loss of government revenues caused critical economical, political, and social tension.

## 9. Infrastructure Investment

Infrastructure investment creates impacts on both the supply and demand sides of the economy. Infrastructure projects have been used as a major economic revitalization strategy in Asia. There are positive effects both on GDP and private capital formation. For Asian cities, the most significant impacts are related to land value increase.

To stimulate economic growth, the government in Taiwan launched “Ten Major Construction Projects” in 1978. These projects included all aspects of transportation facilities such as highways, airports, railroad systems, seaports, etc. These projects were later expanded to enhance the domestic and international transportation network. The impacts of these infrastructure projects on land value were phenomenal. Between 1978 and 1986, government assessed land prices “increased by 500 percent in Taipei City, 460 percent in Kaoshiung City, and 350 percent in Taiwan Province.”<sup>5</sup>

To speculate on land value increases, developers often make early moves to acquire specific sites that have strategic location features related to infrastructure projects. They may acquire the site that is needed for the infrastructure itself (i.e.; a right of way.) so that government has to compromise with significant amount of money to purchase the land for the public project. They may also purchase sites that have strong commercial potential (such as a subway station shopping complex) after the completion of the

infrastructure project. In either case, a small group of private developers benefit notoriously from large-scale public investment.

Such speculations significantly increase the costs of an infrastructure project. In recent years, land acquisition cost has become the major item of public infrastructure expenditures. It is not unusual that land acquisition can attribute more than 50 percent of the total cost of building a roadway.

#### 10. Manipulation of Market Value by Developers

Market value can be artificially manipulated through false transaction values. One mechanism is for a developer to transfer property ownership among corporate subsidiaries with a highly inflated price. The inflated transaction price becomes a false indicator to the real market values for the adjacent properties. The developer then sells the adjacent properties to the general public based on the false market value. The capital gains from the latter transactions could be written-off by the first transaction between the two corporate subsidiaries. There would be a very limited capital gains tax nor the Land Value Increment Tax (LVIT) applied to these transactions. And it is complicated to trace the detailed transactions either within the corporations or with the general public. For a developer who owns a large amount of land in the city, manipulating the market value is a common practice. Current tax laws are not effective to capture such gains.

## **Political Ideology of Capturing Land Value Increment**

Dr. Sun Yat-sen, the founding father of the Republic of China, believed that land value speculation could cause a skewed distribution of wealth within a society. As a result, land value speculation could cause social tensions and even unrest. Land has unique physical characteristics and location features that are non-tradable. These unique features give landowners and speculators opportunities to manipulate the land market and the economic gains from land ownership and use rights. To prevent the land value from being manipulated for personal gains, Dr. Sun studied the land problems throughout Chinese history and developed a philosophy of land equity. His belief set the foundation for Taiwan's regulatory systems to capture the "unearned income" from land speculation.

Dr. Sun's value capture ideology, stipulated in Section 142 of the Constitution, was that government had to implement policies to capture gains from land development. There are two sets of policy measures that have been used to capture capital gains from land development:

- 1) measures to regulate land use and ownership rights; and,
- 2) measures to collect and share economic gains from the sale of land.

The first set of measures includes the land reform and land distribution programs that were developed in the 1950s and the land use planning regulations that have been developed since the 1960s. The second set of measures includes land taxation, especially the unique Land Value Increment Tax (LVIT), and the recently evolved revenue generation tools such as development charges and impact fees. These two sets of measures were developed from the same ideology but evolved into a wide range of policy tools and regulations that may or may not be compatible with each other. These two sets of measures are described below with discussions on the compatibility and contradictions among the rules.

### **Land Value Capture Mechanism—Land Taxation**

Land related taxes in Taiwan are the major sources of local revenues. These taxes include the Land Value Tax (LVT), the Land Value Increment Tax (LVIT), and the House Tax. The LVT is a levy on the owners of land for holding property. The LVIT is a levy on the sellers of land who profited from the transfer of land ownership to another party. The house tax is a levy on the use of the property.

#### The Role of Land Related Taxes

In fiscal year 1995, national taxes accounted for 53.8 percent of total national revenues, while provincial and city taxes accounted for 20.4 percent; and local and municipal taxes accounted for 20.9 percent<sup>6</sup>. In the same fiscal year, 75.3 percent of total local and municipal tax revenues came from land related taxes in which Land Value Tax accounted for 14.9 percent and Land Value Increment Tax accounted 60.4 percent (see Table 3).

**Table 3: Property Tax and Prefectural and Municipal Revenues  
(Unit: NT\$ Billions)**

Fiscal Year	Total Rev		LVT			LVIT			House Tax		
	Amount (NT\$B)	% Incr./yr	Amount (NT\$B)	% of Total	% Incr./yr	Amount (NT\$B)	% of Total	% Incr./yr	Amount (NT\$B)	% of Total	% Incr./yr
1985	75.5		10.9	14.4		34.1	45.2		18.8	25.0	
1990	143.6	18.0	22.6	15.7	21.5	82.9	57.8	28.6	27.4	19.1	9.1
1995	257.2	15.8	38.2	14.9	13.8	155.3	60.4	17.5	40.2	15.6	9.3

NT\$: New Taiwan Dollars: US\$1 approximately equaled to NT\$27.5 in 1995

LVT: Land Value Tax

LVIT: Land Value Increment Tax

Source: Yearbook of Tax Statistics, Republic of China, Ministry of Finance, 1996

The statistics show the importance of land taxes, especially the Land Value Increment Tax (LVIT), in a local government's revenue base. Between 1985 and 1990, annual total revenue growth was 18 percent; whereas LVIT (Land Value Increment Tax) increased 28.6 percent annually. During this period, Taiwan had the most dramatic real estate boom. Although the annual growth rates for all taxes became stable between 1990 and 1995, the total amount of LVIT continued to climb from NT\$82.9 billion in 1990 to NT\$155.3 billion in 1995. The peak of LVIT collection was in 1992 when LVIT accounted for 71 percent of total local revenues.

Although land related taxes are important revenue sources, the taxation system in Taiwan was designed to regulate income distribution and to capture economic profits from land speculation. This ideology came from Dr. Sun Yat-sen<sup>7</sup>, founding father of the country, and the legal basis was the 1954 Equalization of Land Rights. The Land Tax Law was evolved and passed in 1977. Because of the original objectives of the Equalization of Land Rights, the taxation system has more emphasis on regulating land distribution and income equity. Because the land taxation system had to serve these social and political purposes, the administrative framework to achieve revenue objectives was weakened. Two major administrative and technical weaknesses that consequently significantly affected the performance of the taxation system were:

- 1) Local governments have not had independent fiscal capacity until recent ten years. Central government had been allocating budget to support local expenditures. Most of the local revenues would be submitted to the central government for reallocation. It was important to follow the procedure of tax collection, but it was not important to show the effectiveness of the collection. In other words, a local government would perform the collection, but would have less concern on how much revenues were actually collected. Therefore, there were no incentives to set fair tax rates or to expand the tax base.
- 2) The revenues and expenditure systems are not related to each other in government operations. Unlike many developed countries, local revenue generation is not

closely related to the expenditure plan. Since revenue generation and expenditure plans are separate operations, there are no incentives to set any revenue goals to meet the needs of providing adequate local services.

Three major land-related taxes are: Land Value Tax, Land Value Increment Tax, and House Tax. Each has its own rates and assessment practices.

#### *1. Land Value Tax (Land-Holding Tax)*

Land Value Tax (LVT) is levied according to the Official Declared Value of land. In general, the Official Declared Value (ODV) is announced once every three years by counties or municipalities. Market information is used as the basis for the assessment. The Ministry of Interior at the central government level provides technical assistance for local assessment. A Land Value Assessment Commission is established by each local county (municipality) to evaluate and to approve the official assessed value.

A progressive tax rate schedule (1.0 percent~5.5 percent) is applied to the county (local) level land value tax. The progressive tax rate schedule comes into effect when a owner's total land value is greater than the average Assessed Land Value (ALV) of seven acres of land within the county. The tax brackets may be different from county to county. The Land Value Tax is based on progressive tax rates of 1 percent, 1.5 percent, 2.5 percent, 3.5 percent, 4.5 percent, and 5.5 percent. A starting accumulative value, or SAV, is assigned as the starting base for taxation. For an ODV less than the ALV, the tax rate is 1 percent. For the portion exceeding the ALV but less than 500 percent, the tax rate is 1.5 percent. For the portion exceeding the ALV but less than 1,000 percent, the tax rate is 2.5 percent. For the portion exceeding the ALV but less than 1,500 percent, the tax rate is 3.5 percent. For the portion exceeding the ALV but less than 2,000 percent, the tax rate is 4.5 percent. Value at higher levels is taxed at 5.5 percent.

The progressive tax rate schedule prevents the concentration of land holdings in the hands of a few landlords, but it is taxed on the county level, so it is easy to avoid higher tax rates by not concentrating land holdings in the same county. In reality, the higher tax rates are rarely applied. In addition, there are various exemptions and preferential tax rates. For example, agricultural land is totally tax-exempt; owner-occupied residences of less than 3 acres in urban areas and less than 7 acres in rural areas are taxed at the rate of 0.2 percent; industrial lands, parks, public lands, etc., are taxed at the lowest rate.

The assessed land values are reevaluated every 3 years. Because land prices have tended to increase very rapidly, the tax burden has increased substantially over the years. From political pressure, the tax rate has been lowered several times. For example, the basic tax rate was lowered from 1.5 percent to 1.0 percent; and the tax rate for owner occupied residences was lowered from 0.7 percent-0.346 percent to 0.2 percent~0 percent. Because the assessed land value has been lower than the market value, the effective tax rate on land has been very low compared to that in the United States or those in the European countries.



## Effectiveness and Improvements of LVT

The LVT has progressive rates from 1 percent to 5.5 percent depending upon the assessed value. The LVT also has a “special privileged rate” for properties meeting preferential criteria. These criteria are:

- 1) Residential land in urban areas with a lot size less than 3 acres, or, in non-urban areas with a lot size less than 7 acres, and used by owners for residential purpose will be taxed at 0.2 percent;
- 2) Land used for industries or other public purposes will be taxed at 1 percent;
- 3) Land designated for public use in the future will be taxed at 0.2 percent for current use as residential, or at 0.6 percent for current use as non-residential;
- 4) Publicly owned land used for private purposes will be taxed at 1 percent.

These preferential criteria significantly reduced the tax base. In urban areas, the majority of land owners hold less than 3 acres of land. These land owners are exempted from LVT. In non-urban areas, land values are high in the urban fringe. LVT can not be collected as long as the lot sizes are smaller than 7 acres. Some scholars estimated that the effective rate for LVT is about 0.07 percent.

Such a low effective LVT rate encourages land holding because of low costs. During periods of active land markets, a low LVT becomes an incentive to speculation – owners holding the land are not investing capital in economic activities on land. Further more, the current enforcement system has difficulties detecting speculators’ accumulation of properties. With large amounts of valuable land in their hands, large land owners can manipulate the market as well as financial institutions. When land prices increase significantly, only large land owners can afford to buy land. With a low LVT, there is no penalty for holding land or accumulating land ownership. These phenomena contradict the original ideology of minimizing land speculation.

The National Land Conference of 1990 had initiated improvements to LVT implementation. A consensus was reached that the assessed value should be close to the market value. Revaluation should be performed to better respond to market changes and the tax burden of landowners should be minimized during periods of rapid upward swings in price.

Lowering the tax burden would be essential for the general public, but would significantly benefit large landowners. This causes the original LVT objective of avoiding land holding concentration to be diminished. Concentration of land holding allows owners to manipulate the land market and land prices. Such concentration also has a negative impact on land-use efficiency.

Local government should be empowered with the right to set tax rates according to their own local needs. The relationship between tax burden and the supply of local public goods needs to be established. This mechanism can prevent the setting of the assessed

value too far from market value, or the setting of the tax rate from being too low. The original objectives should be preserved: lowering the tax burden providing local services, and avoiding land holding concentration and landowners' manipulation of the market.

## 2. *Land Value Increment Tax (LVIT)*

The Land Value Increment Tax (LVIT) is levied on realized gains from land transactions. The purpose of the land value increment tax is to eliminate windfall gains that result from land value increases. This objective of the LVIT is similar to the capital gains tax. Most countries levy capital gains taxes as a central government-level income tax. LVIT is levied as a local tax earmarked for local services. In Dr. Sun's ideology, it is important that "the increment of land price should belong to the society rather than the landlord." He believed that the increase of land value is attributable to social development rather than work from the landlord or investors. The profits from land should be returned to the society through the land value increment tax. The LVIT became a powerful policy tool to regulate the equity of income distribution and to control land speculation.

This tax is imposed when the land title is transferred. A progressive tax rate is applied based on the rate of increase according to the Official Declared Present Values (ODPV.) The land value increment is measured by the difference between the Official Declared Present Values (ODPV) at the current and the last transfer. The assessment of the ODPV is announced on July 1 of every year. Since LVIT is a form of capital gains tax, or income tax, all the occurring costs and fees are deductible from gross income.

The formula to calculate the net increment is:

$$\begin{aligned} \text{Land value increment} = & \\ & \text{Declared present value at the transfer} \\ & - \text{original decreed value or the assessed value at the last transfer} \\ & \times \text{consumer price index adjustment} \\ & - (\text{land improvement costs} + \text{construction benefits fee paid} + \text{fee paid for land consolidation}) \end{aligned}$$

The LVIT rates are 40 percent, 50 percent, and 60 percent. When the increment is not in excess of 100 percent, the tax rate is 40 percent. If the increment is between 100 percent and 200 percent, the tax rate is 50 percent. If the increment reaches more than 200 percent, the tax rate becomes 60 percent. Owner-occupied residences of less than 3 acres in urban areas and of 7 acres in rural areas are subject to a preferential tax rate of 10 percent. The transfer of public land, agricultural land and land to be donated to social welfare non-profit organizations is tax exempt.

## 3. *House Tax*

A current house tax is levied according to the value of the house (House Tax Act, 1967) as assessed by local real estate assessment committees. The values must be publicly announced by the committee. House tax rates vary depending upon the purposes of use.

For residential use, the tax rate should be higher than 1.38 percent and lower than 2.0 percent of the current value. The rate for owner-occupied houses should not exceed 1.38 percent. For commercial use, the rate is from 3.0 percent to 5.0 percent. For non-profit use such as hospital or civic organizations, the rate is 1.5 percent to 2.5 percent. Local government is responsible for setting house tax rates. Once the local people's assembly has approved the rates, the rates are submitted to the provincial government. After approval from the provincial assembly, the tax rates are sent to the Ministry of Finance for the record.

#### *4. Vacant Land Tax*

The purpose of the vacant land tax is to impose a tax burden on those who hoard vacant land for speculative purposes so as to increase the supply of developed land for utilization. The definition of vacant land is any land where roads and public facilities are available and where the value of structure on the land is less than 10 percent of the land value. The vacant land tax rate is 2-5 times that of the regular land value tax rate. To impose this tax, the local government first designates vacant lands in certain areas must be used by a specified date (usually 2 years). If the land is still left unused after the time specified, a vacant land tax can be imposed or the government can purchase the land at a price equal to the assessed value.

To implement the vacant land tax program, Taipei City conducted a survey and classified certain lots as vacant land from 1968 to 1970. These vacant lots then were demanded for development in two years. After the vacant land was classified, the vacant land tax was imposed.

In 1973, in response to the inflation caused by the first energy crisis, all high-rise construction (4 stories and higher) was halted to reduce the domestic demand for goods and services and, hence, the vacant land tax was also canceled.

In 1980, Taipei city and Kaoshiung city, in response to rapidly rising land prices, implemented the vacant land tax. According to the law, government can purchase vacant land based on the assessed value. Taipei City bought 117 lots of land, totaling 1.9221 hectares. Kaoshiung City, the second largest city in Taiwan, levied the vacant land tax on 170 lots of land totaling 1.307 hectares. In 1985, this tax was suspended due to the recession in the economy.

The overall performance of the vacant land tax is unstable. The tax requires a healthy economy and strong administrative capacity to value the land, to designate the target vacant land, and to measure and collect the tax.

The limited experiences that the government has with its implementation shows that the timing of imposition is hard to determine. When it was used to tackle skyrocketing prices, very probably the local government first announced its intention of imposing the tax when prices were at their highest point; but, whenever it has become effective to implement it, a recession began.

Some people who attended the National Land Conference suggested that the vacant land tax needs to become a regular tax and at the same time, the tax rate should be raised. The authors agree that the vacant land tax, if made a regular tax, can do away with the problem of timing. However, a really high tax rate would adversely effect the efficient use of the land, i.e., landowners may use their land inefficiently just to avoid the tax. And the re-development of the land may become very difficult at a later date. In other words, the high tax rate on vacant land may increase the supply of land in the short-run, but decrease the supply in the long-run.

In sum, the vacant land tax should be imposed as a regular tax to facilitate the development of land; however, to prevent any averse effects, the tax rate should only be slightly higher than the regular tax rate.

### **Value Capture Mechanism: Land Use Regulatory System**

Land use regulations in Taiwan inherited the concept that land value increment should be shared within the society. As stated in the Statute for Equalization of Land Rights, promulgated in 1954, this legal framework allows the government to set rules to ensure developer's "unearned income" to be shared within the society. From the developing stage of the 1950s to the matured economy in the 1990s, the strong influence of the 1954 Statute has never been diminished. The mechanisms to capture profits from land speculation have evolved over the past forty years to accommodate social changes. Generally speaking, these mechanisms maintained two objectives: first, to prevent the accrual of windfall profits from land holdings, and second, to facilitate the efficient use of land.

#### Regulatory Framework in a Developing Economy: Land Reform (1950-60s)

The land reform program set up a regulatory framework to control land supply. The per capita income in 1954 was less than \$192 with the trade deficit and a low personal savings rate. The agricultural sector contributed about 30 percent of the GDP. Political and social conditions were unsettled because of the tension with mainland China. The government needed the land reform program to raise agriculture production and increase personal income. A series of action were taken to secured tenants' land ownership, lower the land rent, and encourage land owners' investment in the industrial sector.

The Land-to-the-Tiller program regulated the land supply and the land ownership distribution system. Large landowners were forced to sell land to tenant farmers. Offering industrial holdings was a typical method of compensation to landlords. Public lands were also sold to the tenant farmers. Providing secured tenure to farmers was a key element in the land reform program. Because the size of farmland had a direct impact on income, direct control of the land supply had a direct control on wealth. The program redistributed land ownership, and consequently, raised the income of individuals as well as redistributing the wealth. With the economy at the underdeveloped stage, this program had implications to both social and economic growth.

The 1954 Statute of Equalization of Land Rights was revised eight times. More effective tools were needed to capture the land value increment and to better balance income distribution. More land use regulatory systems were established accordingly. As Taiwan's economy began to take off, the demand to control land speculation and to manage the transformation of agricultural economy to urban industrial development became stronger.

#### Regulatory Framework on Land Use Controls and Developers Contribution (1960s–90s)

The regulatory system controlling Taiwan's land use has two layers: regional plans and local comprehensive plans. Regional plans are designed and implemented at the central government level and serve as policy guidelines for local development. Local comprehensive plans are developed and implemented by local governments and guide the issuance of land use zoning and development permits. The local comprehensive plans, however, control the areas inside the urban boundary. Non urban areas are regulated by the regional plans. These planning systems are effective tools to create higher land value. The most typical value increase examples are zoning changes and agricultural land conversion for urban use. To capture the profit created from land value changes, government officials developed various mechanisms to deal with different situations.

Under the planning systems, the mechanisms to capture windfalls are usually applied to designated areas. The format is normally called a "developer's contribution" to the community. The laws require a developer to contribute a certain percentage of land on the development site in exchange for an infrastructure provision and a more profitable development scheme.

Typical programs involving land contribution include:

- 1) Block Land Acquisition
- 2) Land Consolidation
- 3) Comprehensive Plan
- 4) Commercial-Industrial Mixed-use District
- 5) Farmland Conversion Program

These programs are reviewed below:

##### *1. Block Land Acquisition*

Block land acquisition is one method to develop the land where the government can share, in part, in the benefits of the new land designation and land development. It is usually employed for developing new areas of a city or a new town, and all levels of government can initiate development of land using the method of block land acquisition. After development, the original landlords are given back at least 40 percent of their original land holdings. For the rest of the land (60 percent), about 35 percent will be used for roads and public facilities. The government usually acquires the rest of the land (25 percent) so that it can be sold to raise funds to pay for the infrastructure provision.

Although a landlord is given back 40 percent of the original land size, there is still a profit gain to the owner. In most of the urban development cases, land value will increase more than two and one-half times the original value. There is no loss to the owner if the value increases more than two and one-half times.

Block land acquisition is a compulsory land development scheme, which takes away some of the development benefits from landlords in advance. Since the land development involves the changes in land-use, land value will be significantly increased especially in an urban area. However, if 60 percent of the land belongs to the government, the incentives to speculate on undeveloped land, e.g., farmland and hilly-land, would be greatly reduced.

Opposition to carry out the block land acquisition mechanism is inevitable. Landlords are not satisfied with the 40-60 arrangement. It is almost certain that the value of a piece of raw land not designated for urban use will jump 250 percent more than for a piece of urban-used and well-serviced land. The landlords, however, are looking for a definite and secured return in the future. Without knowing the future land value, the arguments on what percentage to return to the landlords are constantly debated.

## *2. Land Consolidation*

The land consolidation program is similar to the block land acquisition program in terms of aggregating all the landowners' properties within a designated area for new urban development. The objective is to assemble all the land within a designated area and redesign the area for new urban development. The land consolidation program will return part of the land (usually 40-50 percent) to the original owners after the lots are reassembled. The rest of the land will be owned by the government and will be used for two purpose: 1) for public infrastructure such as roads, sewage treatment, schools, etc.; and, 2) be sold to raise money to finance the public infrastructure.

The current version of the Statute for Equalization of Land Rights does not clearly differentiate when these two mechanisms should be applied. Hence, landlords fiercely resist the application of block land acquisition and opt for the later method. A consensus has been reached in that the Statute needs to be revised to clearly define the situation when block land acquisition should be applied and when land consolidation should be applied. For example, when the development involves changes in land-use designation (e.g., from agriculture use to residential use), since the change will tend to change land values immediately thereby creating windfall profits, block land acquisition needs to be applied.

## *3. Comprehensive Plans*

Two major cities' comprehensive plans allow landlords change zoning and Floor Area Ratio (FAR) in exchange for certain development charges. For example, Taipei City's comprehensive plan allows developers to change zoning from residential to commercial development. The developer has to contribute 15 percent to 20 percent of the land to the city, in addition to the land needed for construction, open space, and infrastructure. If the

conversion is from industrial to commercial, the land contribution will be 25 percent, 30 percent and 35 percent (not including the land used for open space and infrastructure.)

Kaoshiung, the second largest city in Taiwan, also allows land conversion. In this case, land contribution rates are 32 percent to 42 percent for industrial land conversion. For agriculture land conversion, the contribution rates can reach 50 percent and 60 percent.

#### 4. *Industrial-Commercial Mixed-Use Districts*

This newly established planning regulation allows high intensity use of urban or non-urban land. The mixed-use district can be established to overwrite original zoning and land use plans. Developers can file a petition to obtain a special permit to develop the site. In return, this specially permitted development requires both land contribution as well as a profit sharing contribution. In other words, the developer will contribute 30 percent of the land to the city (excluding the land for open space and infrastructure) and 12 percent of the project costs as a commission.

#### 5. *Agricultural Land Conversion*

As the economic structure shifts from the agricultural sector to the service sector, agricultural land supply will be in surplus. The program to convert agricultural land is currently being reviewed by the legislative body. In the draft law, land contribution from developers to the city will be 30 percent. In addition, a certain amount of commission based on the project costs will be required to be paid in advance.

### Comparisons of Land Contribution Mechanisms

In summary, land use regulations to capture unearned income are usually in the form of land contribution (Table 4). These contributions are committed prior to the construction of the project or before the issuance of the development permit. In other words, the value capture rates are an estimate agreed between the developer and the government on the future value of the land.

These preset ratios for developers to contribute reflect the inflexibility of the current value capture system. Heavily influenced by the 1954 Statute of Equalization of Land Right, government set the rule for developers to retrieve their land in a range of 40 to 50 percent. These figures do not reflect the real economic gains or loss for the project. The developer can take back 40 to 50 percent of the land, assuming the land value can go up two- to two-and-one-half times after the project.

**Table 4: Comparisons of Land Contribution Mechanisms**

	Land Returned to Owner	Land Contributed to the City	Land Used for Infrastructure	Additional Contribution in \$
Block Land	40%	25%	35%	

Acquisition				
Land Consolidation	45%	About 30%	About 25%	
Comprehensive Plan	45%	15%/20% - Taipei 32-42% - Kaohsiung	25-35%	
Industrial-Commercial Mixed-use District	40-45%	30%	About 25%	12% Commission
Agricultural Land Conversion	40-45%	30%	About 25%	Commission

Source: Yang, Song-Lin, Benefit Distribution of Agriculture Land Conversion, Council of Agriculture (Taiwan) funded research, 1994, in Chinese.

### **Lessons for Other Countries: Implications to Future Policies**

The value capture mechanisms reviewed above constitute a set of policy implications. Although each mechanism has a uniquely defined purpose, each can be associated to with the other. The lessons learned from the above analysis will be valuable for future policy recommendations and implementation.

#### 1. Taxation was a Critical Factor in the Early Stage of Economic Growth

Taxation was often ignored as a critical element in the early stages of economic development. Most countries started land reform or agricultural reform programs with a focus on land tenure security. The economic side of land was seldom discussed at the policy level. Without being sensitive to the economics of land, land tenure systems or land redistribution systems may lead to income disparity and consequently social unrest. The integration of land taxation with the land redistribution tasks in Taiwan was a key to the success of the land reform program. Land value was determined for sales, compensation, and taxation so that land sales disputes were minimized, land speculation became less profitable, and local revenue increased.

#### 2. Land Value Increment Tax as a Fiscal Source at the Local level

The land increment tax has been the most important source of revenue for local governments, comprising about 1/2 of total local revenues (Table 5).

These figures show only the collected LVIT based on the assessed value which is about 50 percent of the market value. The figures would be higher if land values were assessed on a market basis.



**Table 5: Land Value Increment Tax (LVIT) as Percentage of Local Revenues**

Year	LVIT (%)
1985	45.2
1990	57.8
1995	60.4

Source: Yearbook of Tax Statistics, Republic of China, Ministry of Finance, 1996

### 3. LVIT as a Social Equity Tool - Sharing Benefits with Society

One objective of the LVIT is to share the benefits from land value increment to the public. The “unearned income” was the contribution of the society, and therefore should be returned to the society. The legal system was established to implement the LVIT program. Central and local institutions were set up to implement that task. Although the effective rates were low, the amount of tax revenues from LVIT was an extremely helpful source of revenues for local service provision.

### 4. Low LVIT Effective Rates Showed Extensive Flaws in Capturing Windfalls

To evaluate the performance of LVIT in terms of the achievement of this objective, Taipei City data were used for the analysis. Based on the Taipei City data from 1968 to 1993, an average of 32 percent of the land value increment was captured by the LVIT (Table 6). If Taipei City’s assessed value in 1996 was about 80 percent of the market value<sup>8</sup>, a rough estimate of 24 percent of the capital gains on the market were captured through the LVIT in the mid 1990s.

**Table 6: Assessed Value Increment and LVIT Collection, 1979-1993  
(Unit: NT\$1,000)**

	Assessed Value Increment	LVIT Collected	Effective Rates
Taipei City	852,581,257	275,025,180	32%
Taiwan	2,775,896,797	1,006,052,963	36%

Source: Housing Price Index from Huang, S.H., Evaluation and improvements of Taiwan’s Land Value Increment Tax, (in Chinese), Hwa-Tai Books Co.,1995

This figure would be much lower before 1990 because the assessed value has been readjusted many times over the years to match the market value. The assessed value to market value ratio would be much lower than 80 percent before 1990. It would be a reasonable assumption that Taipei City’s LVIT had captured less than 20 percent of the total land value increments from 1968 to 1993. Compared to the LVIT progress rates of 40 percent, 50 percent and 60 percent set by the tax laws in Taiwan, the implementation of the LVIT has been a complete failure.

Taipei City is the capital City of Taiwan. It would be a reasonable assumption that Taipei City's LVIT implementation is performed better than other localities because of the city's technical capacity as well as the political nature of the capital city. The capital city generally would set a performance model for other local governments. Although Table 6 shows that the effective rate for Taiwan overall is higher than Taipei City, the actual captured rate of the market value increments in Taiwan could be lower than Taipei City. It is because Taiwan's assessment value to market value ratio is generally lower than the ratio in Taipei City. If Taipei City's estimated effective rate is about 20 percent over the past 15 years, Taiwan's effective rate would be lower than 20 percent for the same period.

Using LVIT to capture capital gains from real market transactions of properties would be far from ideal. The LVIT rates of 40 percent, 50 percent, and 60 percent became unrealistic while the estimated effective rate level reached less than 20 percent of the value gains.

#### 5. Legally Escaped Capital Gains from Land Sales

The LVIT tax base, the Official Declared Present Value, is reassessed every year. Any transactions within that one year period, or between the two reassessments, can escape from LVIT because the assessed value has not changed. Any short-term speculative land transaction does not have the obligation of paying LVIT. This is a definite contradiction to the objective of LVIT and the fundamental value capture ideology which guided most of the land use and taxation laws. Short-term land transactions in most cases are speculative behavior. Unfortunately, the assessment practice allows such speculation to be legally void. The tax law that was developed to eliminate land speculation became a legal tool for encouraging short-term speculation.

#### 6. Mismatch of LVIT Assessment and Market Cycles Encourages Speculation

With many arguments about the LVIT practice, there is a consensus from both the public and the government that the gap between the assessed value and market value needs to be resolved first. The assessed value index was always higher than the housing prices index because assessed value starts much lower than the market value and needs to be adjusted at a higher rate. Over the years, assessed value was readjusted but was never able to catch up with the rapid increase in market value. Adjusting the assessed value upward rapidly creates political pressure on tax officials.

The inability to minimize the gap between the market value and the assessed value became more complicated when the real estate cycle moved downward. The assessed value was readjusted upward even when the real market value started to decline. The real market started to move upward rapidly after 1986, and the assessed value also tried to catch up, but after 1989, the assessed value continued to be adjusted upward while the real market declined. Since assessment occurred once a year, there was usually a one-year lag time behind the market movement. Besides this problem of assessment period, there is also a continuous pressure for tax officials to adjust assessed value upward to reduce the gap between the assessed and market value even when the market has declined.

During this period when the assessed value moved up and the market value moved down, some property owners actually had to pay a significant LVIT even if the transaction resulted in a loss. The fundamental objective of LVIT was totally hampered. For those land speculators who were looking for short-term profits from land sales, they totally escaped paying any LVIT when the land was sold within the one-year period between assessment cycles.

### 7. Tax Rates Favor of Short-term Speculation

In terms of the LVIT rates, the effective rate was lower during periods of high price increases than during periods of low increases or periods of price declines. Therefore, the land increment tax not only has failed to effectively curb speculation, but it has also aggravated the highly cyclical behavior of land prices. The progressive tax rate in this case is biased against long-term holding of land and favors speculative short-term holding of land. Since a tax rate favoring long-term holding may cause a lock-in effect, a single proportional tax rate which is neutral would be superior. All the problems associated with the land increment tax come as a result of the officially declared land value; therefore, abolishment of the officially declared land value, and the use of the market transaction value as the tax base is the only way to rectify the situation.

### 8. Capturing Capital Gains from Land Transactions

Taiwanese assessment practice was never able to reflect the real market values of land, and consequently never able to measure the real gains from transactions. The publicly declared land values are approximately 50 percent of market values. If the local government does not reassess land value, no LVIT is collected. Even though land values are reassessed every year, LVIT cannot be collected if transactions occur between the two annual reassessments. As the real estate market skyrocketed in the early 1990s, significant LVIT revenues were never capitalized.

### 9. Distributing Benefits to the Public

Intergovernmental revenue and expenditure-sharing mechanisms allow limited power to distribute benefits from land sales to the public. Local governments are allowed a portion of LVIT revenues to be allocated for public housing and other urban and community development projects. The intention was to give benefits to needy people such as low income families or disadvantaged groups in order to give them a competitive edge in society.

In the early 1950s, the benefit distribution mechanism in the land reform program was to offer land to the tillers. When land becomes scarce, distributing land becomes an impossible mission. Distributing tax revenues through providing urban services evolved as a natural solution. However, projects to provide urban services often require strong political commitments as well as effective technical and administrative expertise. As some projects fail, the idea of distributing benefits evaporates. LVIT revenues, in these circumstances, had to be reallocated to other municipalities or to be returned to the provincial or central government. As

revenues shift to other jurisdictions, the original objective of sharing the benefits becomes less realistic.

#### 10. Controlling Land Speculation

Controlling land speculation has never received strong endorsement within the current political structure. Neither the government nor the private sector has significant interest in implementing this policy. For the private sector, the political power of the landowner overwhelms most of the other powers in society. For the public sector, government agencies that own land are interested in using profits from land development to reduce agency deficits or raise revenues.

With the combination of a regulatory system and a fiscal system, the government in Taiwan still has not been effective enough to prevent the skyrocketing of land prices that has taken place over the past thirty years.

The National Land Conference held in March of 1997 provided a forum for debating the various policy recommendations for solving this problem. The consensus seems to be that land reform is necessary. The policies described in the Statute for Equalization of Land Rights and their weaknesses, as well as some proposals on how to rectify these weaknesses, are discussed in the following section.

#### 11. Capital Gains Tax and Land Value Increment Tax

There are two types of income tax that are associated with capital gains. They are the Individual Income Tax and the Profit-seeking Enterprise Income Tax. The tax rates for individual income taxes are 6 percent, 13 percent, 21 percent, 30 percent, and 40 percent (Table 7). For the Profit-seeking Enterprise Income Tax, the rates are 15 percent and 25 percent. For corporate profits over NT\$100,000 (or approximately US\$3,000), the tax rate of 25 percent applies.

**Table 7: Individual Income Tax Rates**

Income Bracket (NT\$)	In US\$ (Approximate)	Tax rates
370,000	11,000	6%
990,000	30,000	13%
1,980,000	60,000	21%
3,720,000	120,000	30%
Over 3,720,000		40%

Source: Guide to ROC Taxes 1997, Taxation and Tariff Commission, Ministry of Finance, ROC.

When comparing these tax rates, the estimated effective rates of LVIT are lower than the income tax rates. The estimated LVIT tax rates discussed above was below 20 percent. The median bracket for individual income tax is 21 percent. The corporate profit tax is almost a flat rate at 25 percent. From the perspective of the total amount of tax collection within the current structure, the LVIT does not make significant difference comparing to other tax instruments. If the LVIT effective rate is lower than the capital gains tax, its original objective of curbing land speculation has diminished.

## **Taiwan's On-going Policy Reform**

In addition to reviewing and improving the land tax system which consists of the Land Value Tax, the Land Value Increment Tax, and the related House Tax, other policy tools were proposed at the 1997 National Land Conference. The goals were to improve the efficiency, equity, and effectiveness of the current tax and value capture policies.

**Leasing public land:** The government should continue its land holdings. Government-owned land should only be leased out on a long-term basis. Holding government-controlled land is believed to be able to effectively stabilize the land market and to influence land use planning.

**Tighter credit control on real estate mortgages:** Loans to the owners of unused land need to be stopped. Banks should avoid issuing loans to speculators who own unused or underused land. To monitor corporate speculators, government regulations should set restrictions on large firms, such as insurance companies, on their high-risk real estate investment.

**Improving efficiency of real estate transactions:** An integrated real estate information system should be established for better market data. Qualification standards of professional real property appraisers should be raised.

Some of these policy recommendations may be of limited help in stabilizing land prices, and some may even have adverse effects. Hence, before any of these measures is adopted, further investigations on their effectiveness, consequences, and costs and benefits need to be researched.

### **Framework for Future Study**

For Taiwan and other Asian countries, developing effective land and tax policies is at the center of future economic growth strategies. Many economic policies failed in developing countries primarily because of the negligence of the role of land taxation. Land reform and agrarian reform programs were successful in Taiwan because taxation had been part of the program. The role of land and tax policies becomes increasingly important for both political and economic reasons: the democratic movement decentralizes political powers from central government to localities, and, central government overspending pressures the fiscal responsibilities to the sub-national levels. Only in the past 10 years has Taiwan and many Asian countries passed legislation allowing democratic local elections. Local elected executives and legislators were able to gain more control of local expenditures and revenue sources. With rapid economic growth and democratic movements, many policies were prematurely developed and implemented. Contradicting policies and conflicting legislation created skewed consequences that offset effectiveness. Proceedings to remedy the conflicts were not easy because of the ineffectiveness of the new legislative process and the uncertain management structure within the government setting.

The economic crisis in Asia since 1996 has complicated the efforts of restructuring land-related tax policies. Macro economic policymakers were struggling with the restructuring of the financial sector and money supply policies. Local governments were actively reviewing strategies to stabilize revenue and political bases. The factors affecting land value and the mechanisms to capture the land value increment became more complex. Developing mechanisms to capture land value increment for financial and social objectives has become even more challenging for local officials and the general public.

The issues to be examined for the future development of value capture mechanisms include:

### 1. Wealth disparity and land value capture

Some research has shown that rising land price and concentration of land ownership are the key factors attributable to the wealth disparity issue in Taiwan. When land value is added into the calculation of personal wealth, the gap between the wealthiest class and the poorest class increases significantly. Research has also shown that the extent of wealth disparity has increased rapidly in recent years. The argument that current value capture mechanisms are ineffective and tax reform is needed is getting stronger support from the public.

### 2. Social agenda vs. revenue tool

How to balance social equity and economic efficiency in the tax policy context has been a continuous debate in Taiwan. The LVIT was developed with well-intended social equity objectives, but was not developed as a well-defined revenue generation tool. The weakness of tax base measurement and tax collection procedures created equity issues when land value increased rapidly. Lack of political commitment to improve tax laws and administration will continue to cause revenue loss and land market inefficiency.

Mechanisms to capture land value gains need to have clear revenue or regulatory objectives. If LVIT is used as a revenue tool, there should be an accurate measurement of the tax base and there should be adjustable tax rates. If LVIT is used as a regulatory tool, there should be an accurate measurement on the effectiveness of controlling speculation. If land use measures have revenue objectives, the value of land should be accurately measured in terms of its original use and the newly designated use. For example, the proportion of land to be returned to the original owners in the land consolidation program should not be set at a fixed percentage rate, according to the current laws. Landowners should receive the proportion of land that can reflect the share of the total value of the project.

### 3. Tax burden and fairness

The argument is that the progressive rates of LVT and LVIT actually have a regressive effect. A detail analysis is needed to measure the tax burden in different income classes. It is important to understand whether the current tax structure benefits the higher income class and if it benefits speculative transactions.

#### 4. Speculation control:

Land speculation may need to be redefined as the land market becomes a more complex economy. Financial institutions, corporations, and individuals can all engage in the market speculation activities. Capturing land value increment from financial institutions, corporations, or individuals may need different mechanisms. The interactions among various value capture mechanisms should be examined. For example, the current combination of low LVT rates (effective rate estimated at 0.07 percent) and high LVIT (40-60 percent) causes speculative holding.

#### 5. Institutional framework

The institutional setting responsible for the management and administration of value capture mechanisms is probably the most critical element in carrying out a fair and effective program. Value capture mechanisms involve institutions with various disciplines in economic development, environment, land use planning, law, finance, public housing, etc. Because of the difference in institutional objectives, value capture programs often create conflict among them.

For LVIT, the mechanism was developed and managed through the Ministry of Interior and Ministry of Finance. The Ministry of Finance sets tax rates for all jurisdictions. The Ministry of Interior sets property assessment standards for local governments. The local governments conduct actual value assessment. The Ministry of Finance's revenue goals, the Ministry of Interior's social equity goal, and local governments' political pressure create a constant conflict about how LVIT should be improved.

The Ministry of Interior, who is responsible setting guidelines for local governments to prepare land value assessment, has a higher priority on social equity than revenue generation. Local governments assess land value well below market value for political reasons. Lacking the incentives to make accurate assessment, the tax base was not accurately represented. On the other hand, Ministry of Finance, who sets the tax rates, has less control over the assessment and collection at the local levels. Lacking incentives to monitor the effectiveness of the LVIT assessment and collection, the Ministry of Finance barely initiated programs to improve LVIT administration.

Other value capture mechanisms initiated by other government institutions have more complex environments. Most of the value mechanisms can be initiated by agencies at all levels of government. The Council of Agriculture is responsible for the agriculture land conversion program. The Ministry of Economic Development is responsible for special industrial-commercial mixed-use districts in metropolitan areas. Local governments implement various programs for collecting fees or land from developers.

Further more, most of these value capture programs (except taxation) were developed to deal with specific needs in a specific economic situation. Lacking coordination and preparation at the beginning, the programs were often operated effectively for a short period of time. Changing the legal and administrative procedures to deal with new



economic development stages is less of interest to operation agencies. There is always a strong interest in pursuing new procedures and new mechanisms. New mechanisms are easier to be accepted by the legislators and developers when land values rise rapidly. After the land market's upswing, these mechanisms became a political burden to the operating agencies.

In summary, this preliminary study analyzed the effectiveness of the value capture mechanisms used in Taiwan during the past fifty-year period. More comparable studies on different countries will be useful to help improve the value capture policy objectives, implementation strategies, and most importantly, the institutional framework. The interrelation among policy objectives will be valuable to avoid potential policy conflicts. The evolution of the implementation strategies used during different time periods will help policymakers understand the political, social, and economic implications. And the institutional relationship affects the effectiveness of the entire efforts on value capture.

### **End Remarks**

Taiwan's land and tax policies in the 1950s created a successful model for developing countries. These policies were attributable to the rapid and equitable economic growth for three decades. However, these policies also created the high land prices and the income and wealth disparity of the 1980s and 1990s. How these policies evolved, what mistakes were made, and what can be adjusted for future growth will be the valuable experience for other countries.

Using land as an economic source for development and using taxation to achieve both revenue and social equity goals are ideal propositions. The Taiwan case suggested that these strategies were effective for certain periods of time and must be adjusted to meet new political, economic, and social challenges. The issues examined in this paper are essential for the continuous effort of building a strong economic foundation for the future. The "bubble" economy inflated by unrealistic land prices could have been prevented if the value capture policy consequences were interpreted clearly. A coordinated policy framework for tackling land use and land value issues needs to be developed. Out-of-date regulations and rules need to be revised or removed. The political ideology can be retained, but the mechanisms to implement the policies need to be refined as the social and economic environment changes. Facing the Asian economic crisis in the late 1990s, looking for strategies to restructure tax and revenue systems will be a key element for future growth.

## Endnotes

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<sup>1</sup> Due to the availability of Taiwan's housing price data, this comparison compares a major city's housing data with the country's economic growth.

<sup>2</sup> Money Supply M1B = Net Currency + Deposit Money; (Net currency refers to all currency held by private and public sectors, excluding monetary institutions; Deposit money includes corporations' checking accounts and individuals' checking and saving accounts.)

<sup>3</sup> Data from the Quarterly National Economic Trends, Taiwan Area. Published by the Directorate-General of Budget, Accounting and Statistics, Republic of China, November, 1997.

<sup>4</sup> Saving rate =  $(\text{GNP} - \text{Consumption} + \text{Net current transfers}) / \text{GNP}$

<sup>5</sup> Lin, Robert, "Urban Land Policy Issues in Taiwan" in Land Policy Issues in East Asia, edited by Bruce Koppel and D. Young Kim, p. 403, published by East West Center (USA) and Korea Research Institute for Human Settlements, 1993.

<sup>6</sup> The city taxes and municipal taxes discussed here are levied from two different levels of governments. The two major cities, Taipei and Kaoshiung, are cities at the provincial level which is under central government's jurisdiction. Their taxes are in the category of Provincial and City Taxes. Other local level governments are called prefectures or municipalities which are under provincial government's jurisdiction. Their taxes are in the category of Prefectural and Municipal Taxes.

<sup>7</sup> The philosophy of Dr. Sun's ideology was called the Three Principles of the People. His land and taxation philosophy was heavily influenced by the turn-of-the-century American economist Henry George. In 1912, Dr. Sun responded to a group of American reporters by saying that "The teaching of your single taxer, Henry George, will be the basis of our program of reform. The land tax as the only means of supporting the government is an infinitely just, reasonable, and equitably distributed tax..." (The Republic (Chicago), April 12, 1912, p.349.) Such emphasis of Dr. Sun's philosophy on property taxation was later stipulated in China's Constitution.

<sup>8</sup> An estimate from the 1995 sales samples gathered from Taipei's Land Administration offices.

### Appendix: Evolution of Taiwan's Land Value Increment Tax

Year	Time	Tax Payer	Tax Base	Increment	Tax Rates	Key Changes
1930 (6/30)	1. Transaction, or 2. 15-year Fixed Term	1. Seller 2. Receiver (gift) 3. Owner (15 years)	Land value increment	(Increment - last transaction value) x 15% for urban land 15% for urban land 20% for rural land	Rates    Increments 20%    < 50% 40%    <100% 60%    <200% 80%    <300% 100%   >300%	1. Urban and rural land had different measurement 2. Tax based on real increment or 15 year 3. Five progress rates
1944 (3/28)	Transaction	1. Seller 2. Receiver (gift)	Land value increment	Selling price - last transaction - deductibles	Rates    Increments 20%    <100% 40%    <200% 60%    <300% 80%    >300%	1. Removed 15-year fixed increment tax 2. Same rates for urban and rural land 3. Four progress rates with max 80%
1946 (4/29)	1. Transaction, or 2. 10-year Fixed Term	1. Seller 2. Receiver (gift) 3. Owner (10 years)	Land value increment	Selling price - last transaction - deductibles	Rates    Increments 20%    <100% 40%    <200% 60%    <300% 80%    >300%	1. Reinstated 10-year fixed increment tax 2. Deductibles as incentives 3. Inflation used to adjust the last transaction price
1954 (8/26)	Transaction	1. Seller 2. Receiver (gift)	Publicly declared value	selling price – last transaction* inflation - improv. costs	Rates    Increments 30%    <100% 50%    <200% 70%    <300% 90%    <400% 100%   >400%	1. 1st land law in Taiwan 2. Removed fixed-term increment tax 3. Formulas used to calculate inflation 4. Deductibles defined as improvements costs 5. Five tax rates with 100% max
1958 (7/2)	Transactio	1. Seller 2. Receiver (gift)	Transaction price	selling price - last transaction* inflation - improv. costs	Rates    Increments 30%    <100% 50%    <200%	1. Extend deductibles 2. Exempted Foreign organizations

Year	Time	Tax Payer	Tax Base	Increment	Tax Rates		Key Changes
					70%	<300%	
					90%	<400%	
					100%	>400%	
1964 (2/6)	Transaction	1. Seller 2. Receiver (gift)	publicly declared value (declared every 6 months)	selling price - last transaction* inflation - improv. costs	Rates	Increments	1. Urban land only 2. Lowered the rates 3. Using declared value as base to measure increments - seller delayed report on transaction 4. If self-declared value was 20% lower than the publicly declared value, govt. can purchase the land 5. Exemptions extended
					20%	<100%	
					40%	<200%	
					60%	<300%	
					80%	<400%	
					100%	>400%	
1968 (2/12)	1. Transaction 2. Setting deeds	1. Seller 2. Receiver (gift) 3. Deed proprietor	selling price or publicly declared value	selling price - last transaction* inflation – improv. costs	Rates	Increments	1. Four level rates with 80% max 2. All publicly declared value started in 1964 and beyond 3. Publicly declared value announced every 6 months 4. Continued to expand exemptions
					20%	<100%	
					40%	<200%	
					60%	<300%	
					80%	>300%	
1977 (2/2)	1. Transaction 2. Setting deeds	1. Seller 2. Receiver (gift) 3. Deed proprietor	publicly declared value	publicly declared value at the sales – publicly declared value at last sales * inflation – improv. costs	Rates	Increments	1. Publicly declared values applied to whole country 2. Three level rates with 60% max 3. Lax tax can be deductible 4. Land purchased by govt received 40% deductibles 5. Land consolidation received 20% deductibles 6. Vacant lands add 10% 7. Not for agriculture land
					40%	<100%	
					50%	<200%	
					60%	>200%	

Year	Time	Tax Payer	Tax Base	Increment	Tax Rates	Key Changes
1986 (6/26)	1. Transaction 2. Setting deeds	1. Seller 2. Receiver (gift) 3. Deed proprietor	1. Govt purchase: selling price. 2. Private transactions: publicly declared value	publicly declared value at the sales - publicly declared value at last sales * inflation - improv. costs	Rates    Increments 40%    <100% 50%    <200% 60%    >200%	1. Charitable contribution deductibles 2. Land acquired by govt deductible 3. Farm land tax reduction: 20%

