



NATIONAL CHENGCHI UNIVERSITY
INTERNATIONAL MASTERS IN APPLIED
ECONOMICS AND SOCIAL DEVELOPMENT

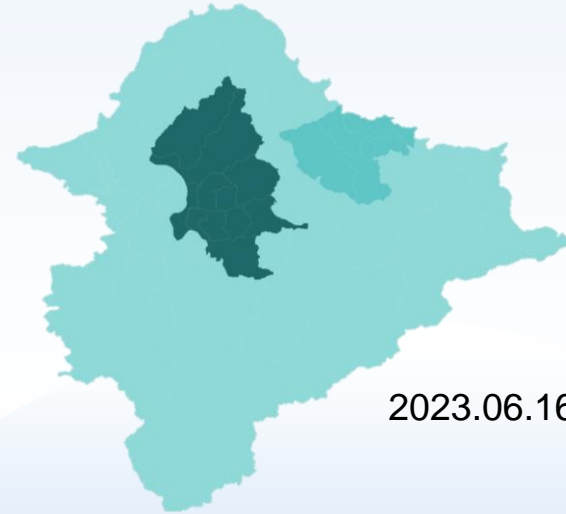


Multi-House Tax Policy and Housing Price Effect :

Evidence from the Greater Taipei Metropolitan Area in Taiwan

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Further Studies**



Introduction



Datasets and Variables



Equations



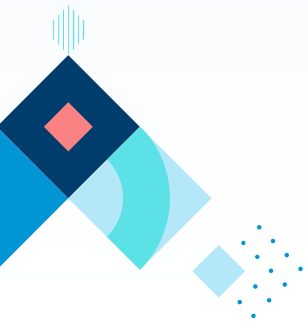
Empirical Study



Conclusion



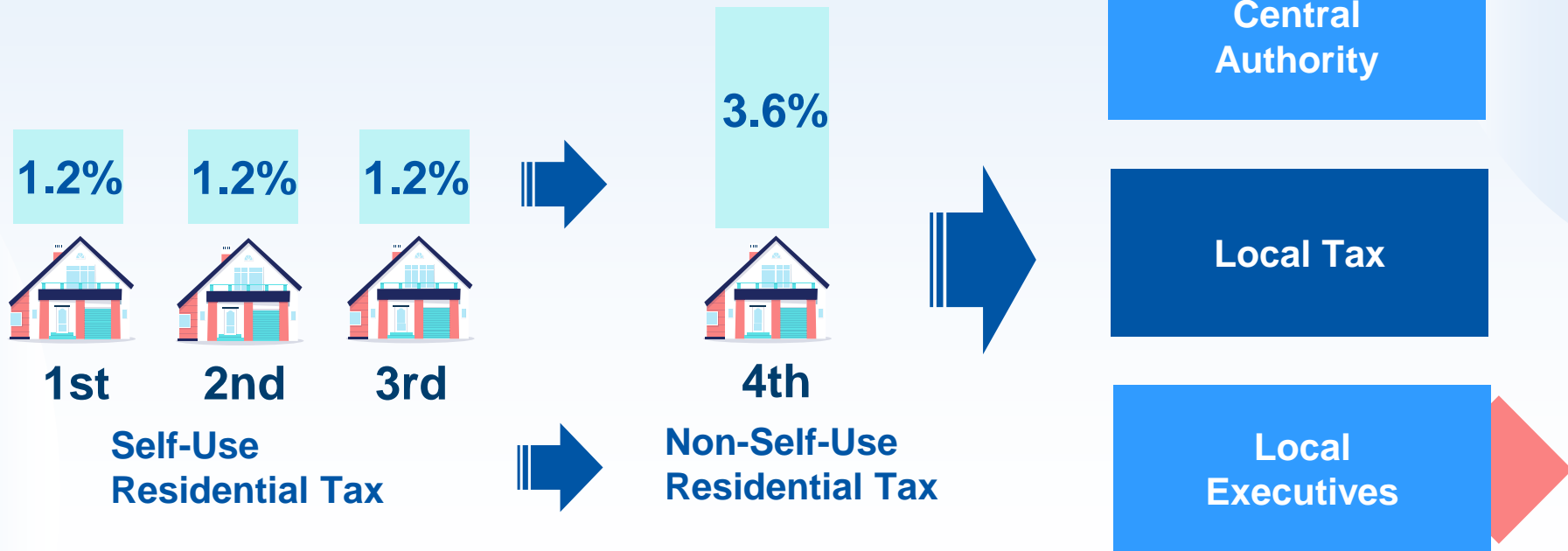
Suggestions for Further Studies



Introduction of Multi-House Tax Policy

Taipei City

was the leading city to carry out the multi-house tax policy in **2014.07**.



Introduction

The Composition of Annual Payment for the Multi-House Tax (Similiar with Housing Tax)

Present Value of
a House (NTD)

Tax Base



Tax Rate



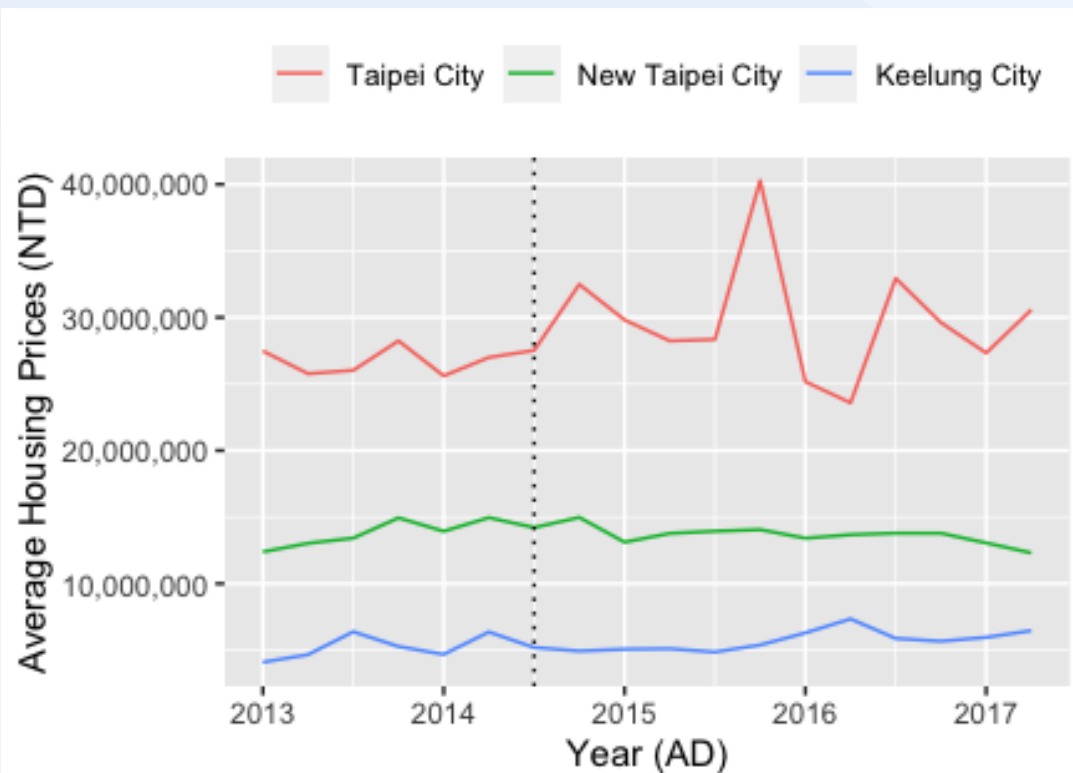
**Area in
Possession**



**Taxation
Months/12**

Adjustments
of Land Value
per year (%)

Introduction



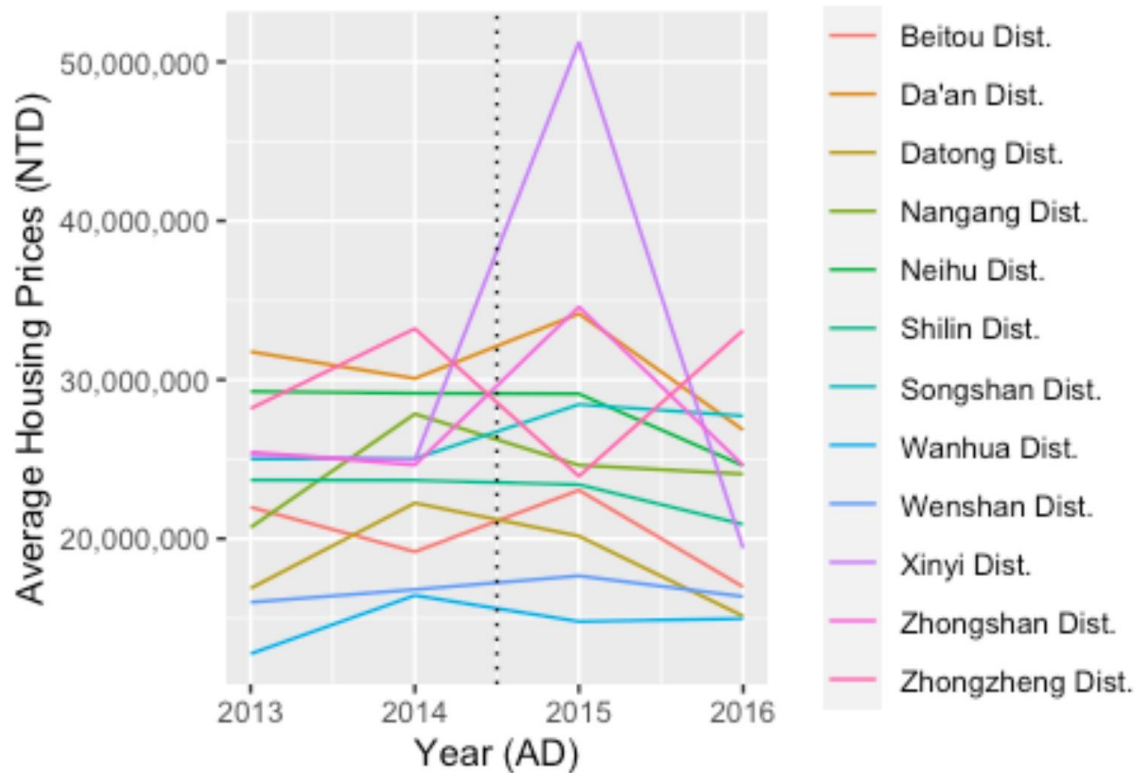
The Housing Price Trend in Three Cities of the Greater Taipei Metropolitan Area

Source: This Study

Introduction

1

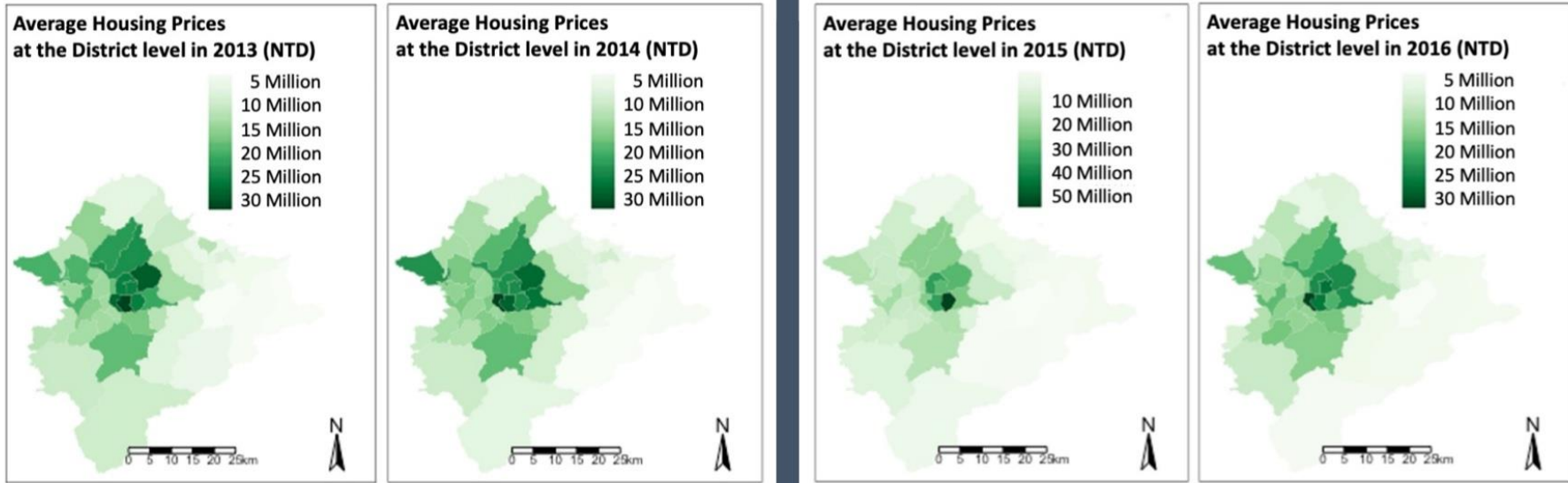
Decrease in
Housing Prices



The Changes in Housing Prices within Taipei City

Source: This Study

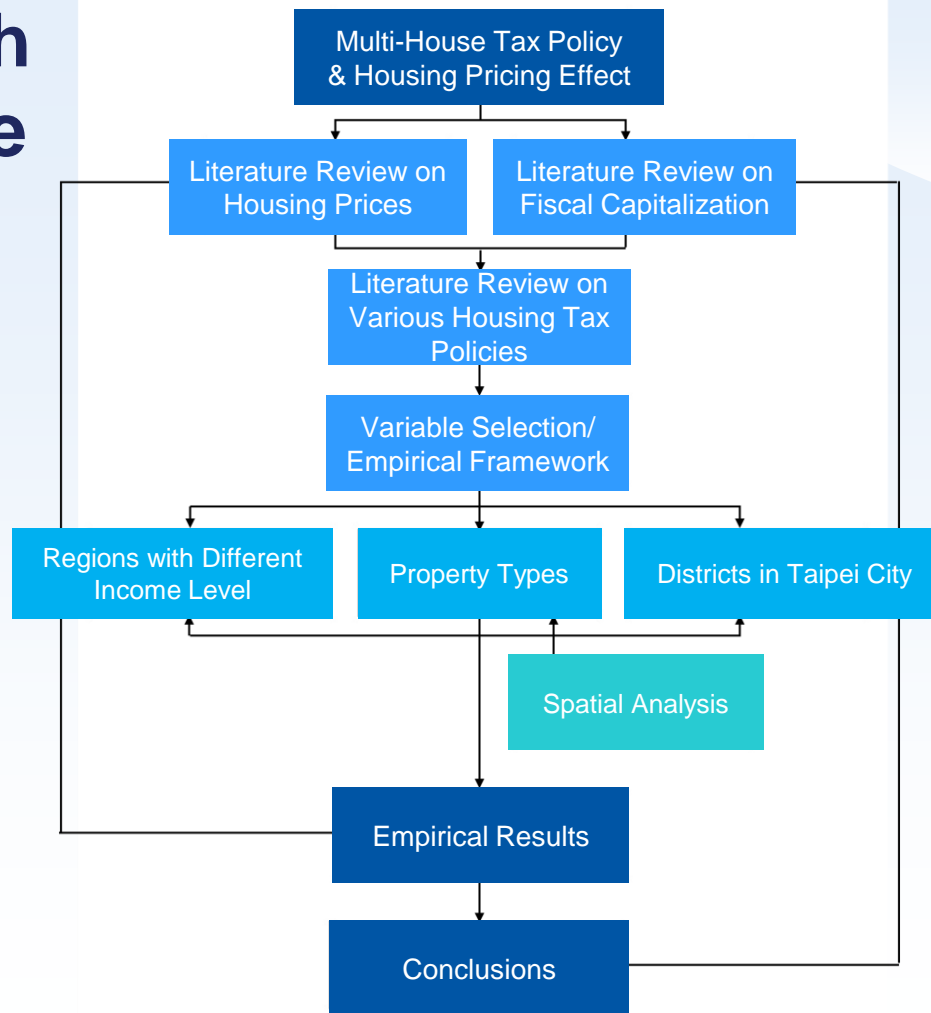
Implementation of Multi-House Tax



The Choropleth Maps Showing Changes in Housing Prices at District Level

Source: This Study

Research Structure





Introduction



Datasets and
Variables



Equations



Empirical Study



Conclusion



Suggestions for
Further Studies

Datasets and Variables

Actual Price Registration Dataset
Micro-level

Details of Transactions

Property Characteristics

- Transferred Area of Building and Land
- Structure Age
- Property Type

Outcome Variable

- Log of Housing Prices

Time

- Transaction Date (Year-Quarter)

Location

- Transaction Address (City-District)

Macro Trend
Binary Dummy

Impact of Multi-House Tax Policy

-Multi⁰

-Multi¹

20132014.52017.5

Taipei

New Taipei

Keelung

Multi¹

Multi⁰

Control Variables
Macro-level

Regional Condition

Demographic Factors

- Households
- Population Density
- Gender Ratio
- Birth Rate
- Death Rate
- Marriage Rate
- Divorce Rate

Economic Status

- Individual Income Tax in Districts

Vacancy Rate

- Low-Use-Residentials / Total Buildings Classified for Residential Taxation Purposes

Micro-level

Property Characteristics

- Transferred Area of Building and Land
- Structure Age
- Property Type

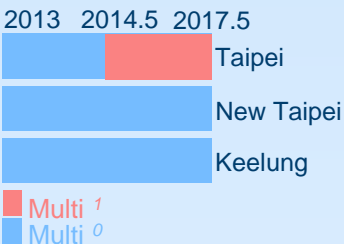
-Log of Housing Prices

-Transaction Date
(Year-Quarter)Transaction Address
(City-District)

Binary Dummy

Impact of Multi-House Tax Policy

- Multi ⁰
- Multi ¹



Macro-level

Demographic Factors

- Households
- Population Density
- Gender Ratio
- Birth Rate
- Death Rate
- Marriage Rate
- Divorce Rate

-Individual Income Tax in Districts

-Low-Use-Residentials.
/Total Buildings Classified for
Residential Taxation Purposes



Introduction



Datasets and
Variables



Equations



Empirical Study



Conclusion



Suggestions for
Further Studies

Equations

Hedonic Pricing Model with Fixed Effect

$$Y_{itz} = \alpha + \delta_1 \underset{\text{Binary}}{\text{MultihouseTax}_{itz}} + \underset{\text{Matrix of Control Variables}}{X_{it}^*} \beta + \underset{\text{Time-Location Error Term}}{\zeta_z + \tau_t} + \epsilon_{itz}$$

1

Hedonic Pricing Model with Fixed Effect



Interaction with potential factors

$$Y_{itz} = \alpha + \delta_1 \text{MultihouseTax}_{itz} + \underset{\text{Interaction-Term, while } k=1,2,3}{\text{MultiHouseTax}_{itz}^k Z_{iz}^k \Delta^k} + \underset{\text{Dummy of Interaction}}{Z_{iz}^k \gamma} + X_{it}^* \beta + \zeta_z + \tau_t + \epsilon_{itz}$$

2

Equations

Local Economic Status

$$Z_{iz}^1 = [\textit{Average Inc. Tax}_{tz}]$$

Continuous Variable

Category Variable

$H_{Inc. \cdot Region}$

$M_{Inc. \cdot Region}$

Differences in Effects based on
Variation in Tax Payments

3-1

3-2

Differences of Effect by using
Predefined Dummy Groups

Property Types

$$Z_{iz}^2 = [\textit{Property Type}_i]$$

4

Administrative Districts

$$Z_{iz}^3 = [\textit{Districts in Taipei City}_z]$$

5

$k \in \{1, 2, 3\}$

Z=1

Setting Dummies for Interactions

Local Economic Status

Average Individual
Income Tax
in Each District

= Aggregated
Values from

Opendata

Average Individual
Income Tax
in Li



Weighted Value

Proportion of
Population in Li to
Population in District



Rank them

1st -16th

High_Income_Region

17th-32nd

Middle_Income_Region

33rd-48th

Low_Income_Region

Baseline

Setting Dummies for Interactions

Z=2

Property Type

Residential-Use

透天厝 Detached House

Condominium

Residential Building

Mansion

Suite

Non-Residential-Use

Office Building

Administrative Office
in a Factory

Shopfront

Others

Z=3

Administrative Districts in Taiepi City

Wanhua District

Da'an District

Zhongshan District

Zhongzhang District

Datong District

Shilin District

Nangang District

Neihu District

Beitou District

Wenshan District

Xinyi District

Songshan District

 **Baseline**



Introduction



Datasets and
Variables



Equations



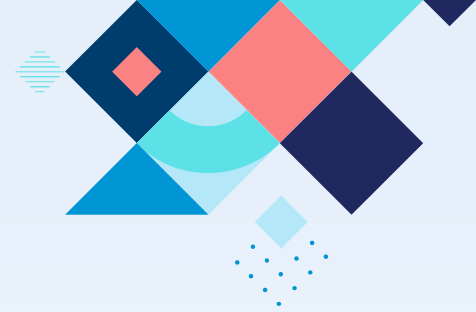
Empirical Study



Conclusion



Suggestions for
Further Studies



Interpretation of Empirical Results

The Steps of Interpreting the Empirical Results in Each Round

A

Multi-House-Policy ¹

Coefficient

1

Post-Multi-House Tax Policy Pricing Effects

B

Potentially Fluctuates Housing Prices

Local Economic Status

Property Types

Administrative Districts

Continuous

Category

Before

Coefficients with significance

2

Respective Effects on Pre-Defined Groups of Dummies (Multi ⁰)

After

Aggregated Effect with Interaction Factors After Multi ¹

By Summing the both Coefficients of Multi ¹ and Default Dummies up

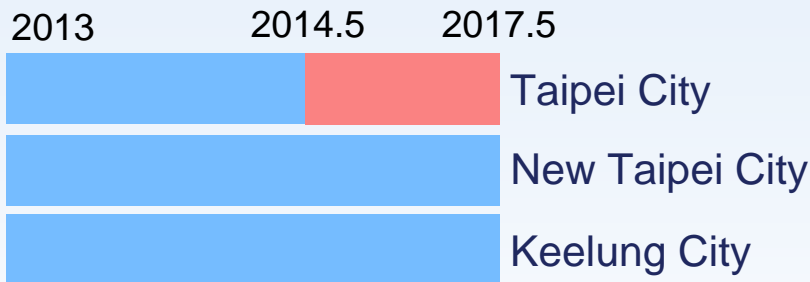
3

Effect of Multi-House Tax Policy on Housing Prices by Different Interactions

1 Average Post-Multi-House Tax Policy Pricing Effects

Reasonable
but Insufficient

↑ Increase in Housing Price



■ Multi¹ Average Housing Price of Affected one
■ Multi⁰ Average Housing Price of Un-Affected one

Dependent Variable: Natural Log of Housing Prices

| | |
|--|------------------------|
| Transferred Building Area | 0.001*** (0.00001) |
| Transferred Land Area | 0.001*** (0.00002) |
| Structure Age | -0.022*** (0.0001) |
| Multi-House-Tax-Policy ¹ | 0.011** (0.005) |
| Households | -0.00000 (0.00000) |
| Gender Ratio | -0.054*** (0.006) |
| Population Density | -0.00000 (0.00002) |
| Birth Rate | 42.814*** (3.228) |
| Death Rate | -48.996*** (6.041) |
| Marriage Rate | -34.203*** (5.406) |
| Divorce Rate | -35.909*** (10.866) |
| Vacancy Rate | 1.858*** (0.276) |
| Average Individual Income Tax in Districts | 0.00000 (0.00003) |

| | |
|--|---------|
| Fixed Effect on Location (City-District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.276 |
| N (Observations) | 251,580 |

Note.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Z=1

3-1

Effect of Multi-House Tax Policy on Housing Prices by Local Economics Status (Continuous Variable)

Dependent Variable: Natural Log of Housing Prices

| | |
|--|-------------------------|
| Multi-House-Tax-Policy ¹ | 0.138*** (0.027) |
| Multi ¹ * Avg. Ind. Income Tax in Dist. | -0.0001*** (0.00002) |
| Fixed Effect on Location (City-District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.276 |
| N (Observations) | 251,580 |

Note.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

↑ Increase in Housing Price

Effect on High-Income Region

$$0.138 + H*(-0.0001)$$

Effect on Low-Income Region

$$0.138 + L*(-0.0001)$$

Differences in Effects by knowing
Variation in Tax Payments across the regions

Difference of Effect btn High and Low Income Region

$$(H-L)*(-0.0001)$$

Assuming the Difference of IncomeTax is 10,000 NTD

$$0.138 + 10,000*(-0.0001) = 0.138$$

Z=1

3-2 Effect of Multi-House Tax Policy on Housing Prices by Local Economics Status (Category Variable)

Dependent Variable: Natural Log of Housing Prices

| | | |
|---|--|----------------------|
| 1 | Multi-House-Tax-Policy ^l | 0.207*** (0.016) |
| 2 | High-Income-Region ^d | -0.009 (0.007) |
| 3 | Middle-Income-Region ^d | -0.002 (0.006) |
| | Multi ^l * High-Income-Region ^d | -0.199*** (0.018) |
| | Multi ^l * Middle-Income-Region ^d | -0.213*** (0.016) |
| | Controlling Property Characteristics | Yes |
| | Controlling Demographic Factors | Yes |
| | Controlling Local Economic Status | Yes |
| | Fixed Effect on Location (City-District) | Yes |
| | Fixed Effect on Time (Year-Quarter) | Yes |
| | Adjusted R ² | 0.277 |
| | N (Observations) | 251,580 |

Note.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

↑ Increase in Housing Price

Aggregated Effect

↑ Increase
High-Income Region 0.008

↓ Decrease
Middle-Income Region -0.006

Z=2

4

Heterogeneous Pricing Effects: Property Types

| | |
|--|---------|
| Controlling House Characteristics | Yes |
| Controlling Demographic Factors | Yes |
| Controlling Local Economics Status | Yes |
| Fixed Effect on Location (City-District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.276 |
| N (Observations) | 251,580 |

1

Dependent Variable: Natural Log of Housing Prices

| | |
|-------------------------------------|---------------------|
| Multi-House-Tax-Policy ¹ | 0.072*** (0.022) |
|-------------------------------------|---------------------|

↑ Increase in
Housing Price

Before (Multi⁰)

| | |
|---|--------------------|
| Residential Building ^d (11 floors above with elevator) | 0.010 (0.008) |
| Condominium ^d | 0.006 (0.009) |
| Others ^d | -0.016 (0.019) |
| Suite ^d (1 room with 1 bathroom and 1 hall) | 0.009 (0.009) |
| Shopfront ^d | 0.031** (0.013) |
| Administrative office in a factory ^d | 0.001 (0.015) |
| Mansion ^d (10 floors below with elevator) | 0.009 (0.009) |
| Office Building ^d | 0.019 (0.013) |

After (Multi¹)

| | |
|--|----------------------|
| Multi ¹ * Residential Building ^d | -0.059*** (0.023) |
| Multi ¹ * Condominium ^d | -0.080*** (0.023) |
| Multi ¹ * Others ^d | -0.035 (0.039) |
| Multi ¹ * Suite ^d | -0.059** (0.026) |
| Multi ¹ * Shopfront ^d | -0.063* (0.034) |
| Multi ¹ * Administrative office in a factory ^d | -0.095** (0.039) |
| Multi ¹ * Mansion ^d | -0.050** (0.024) |
| Multi ¹ * Office Building ^d | -0.068** (0.034) |

Z=2

Heterogeneous pricing effects: Property Types

Dependent Variable: Natural Log of Housing Prices

2

Before (Multi⁰)

| | |
|---|--------------------|
| Residential Building ^d (11 floors above with elevator) | 0.010 (0.008) |
| Condominium ^d | 0.006 (0.009) |
| Others ^d | -0.016 (0.019) |
| Suite ^d (1 room with 1 bathroom and 1 hall) | 0.009 (0.009) |
| Shopfront ^d | 0.031** (0.013) |
| Administrative office in a factory ^d | 0.001 (0.015) |
| Mansion ^d (10 floors below with elevator) | 0.009 (0.009) |
| Office Building ^d | 0.019 (0.013) |

| | |
|--|---------|
| Controlling House Characteristics | Yes |
| Controlling Demographic Factors | Yes |
| Controlling Local Economics Status | Yes |
| Fixed Effect on Location (City-District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.276 |
| N (Observations) | 251,580 |



Shopfront

opened on the 1F of
buildings with added value
/ located at booming area

0.031

↑ Increase

Multi¹)

| | |
|---|----------------------|
| Multi ¹ * Residential Building | -0.059*** (0.023) |
| Multi ¹ * Condominium | -0.080*** (0.023) |
| Multi ¹ * Others | -0.035 (0.039) |
| Multi ¹ * Suite | -0.059** (0.026) |
| Multi ¹ * Shopfront | -0.063* (0.034) |
| Multi ¹ * Administrative office in a factory | -0.095** (0.039) |
| Multi ¹ * Mansion | -0.050** (0.024) |
| Multi ¹ * Office Building | -0.068** (0.034) |

Z=2

Heterogeneous pricing effects: Property Types


| | |
|--|---------|
| Controlling House Characteristics | Yes |
| Controlling Demographic Factors | Yes |
| Controlling Local Economics Status | Yes |
| Fixed Effect on Location (City-District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.276 |
| N (Observations) | 251,580 |

Before (Multi⁰)

| | |
|---|--------------------|
| Residential Building ^d (11 floors above with elevator) | 0.010 (0.008) |
| Condominium ^d | 0.006 (0.009) |
| Others ^d | -0.016 (0.019) |
| Suite ^d (1 room with 1 bathroom and 1 hall) | 0.009 (0.009) |
| Shopfront ^d | 0.031** (0.013) |
| Administrative office in a factory ^d | 0.001 (0.015) |
| Mansion ^d (10 floors below with elevator) | 0.009 (0.009) |
| Office Building ^d | 0.019 (0.013) |

Dependent Variable: Natural Log of Housing Prices

| | |
|-------------------------------------|---------------------|
| Multi-House-Tax-Policy ¹ | 0.072*** (0.022) |
|-------------------------------------|---------------------|

 Increase in Housing Price

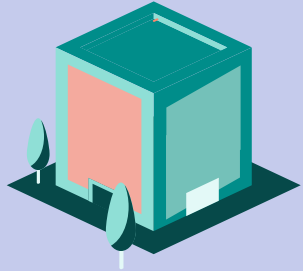
3

After (Multi¹)

| | |
|--|----------------------|
| Multi ¹ * Residential Building ^d | -0.059*** (0.023) |
| Multi ¹ * Condominium ^d | -0.080*** (0.023) |
| Multi ¹ * Others ^d | -0.035 (0.039) |
| Multi ¹ * Suite ^d | -0.059** (0.026) |
| Multi ¹ * Shopfront ^d | -0.063* (0.034) |
| Multi ¹ * Administrative office in a factory ^d | -0.095** (0.039) |
| Multi ¹ * Mansion ^d | -0.050** (0.024) |
| Multi ¹ * Office Building ^d | -0.068** (0.034) |

Multi ¹ = 0.72

Comparison among Residential-Purpose Buildings



Condominium

6F below
no security guard
no elevator
no public facilities

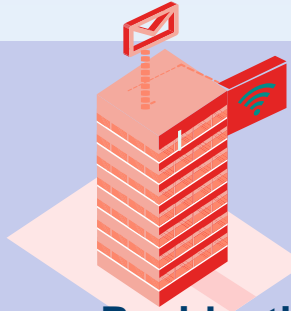
**Cheaper Rents/
Older Structure**

$$-0.080^{***} + 0.072 =$$

-0.008***

 **Decrease**

4



Residential Building

12F below
with security guard
with elevator
larger public facilities

**Emerging Housing
Trend**

$$-0.059^{***} + 0.072 =$$

0.013***

 **Increase**

2



Mansion

7F-11F
with security guard
with elevator
with smaller public
facilities

Traditional/Scarcity

$$-0.050^{**} + 0.072 =$$

0.022**

 **Increase**

1



Suite

1 room
with 1 bathroom
with 1 hall

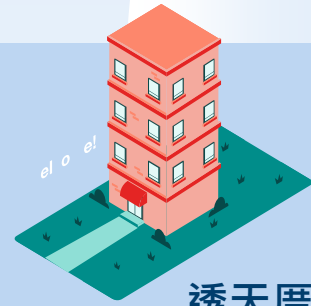
**Popular with Middle-
Class Tenants**

$$-0.059^{**} + 0.072 =$$

0.013**

 **Increase**

2



透天厝 Detached House

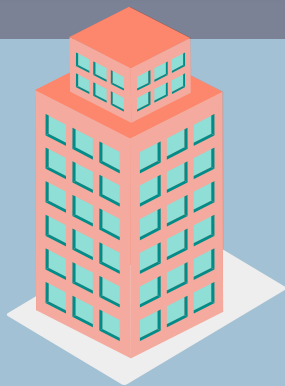
all stories owned by
a single family
mostly in southern Taiwan

Luxury

Baseline

Multi¹ = 0.72

Comparison among Non-Residential-Purpose Buildings



Office Building

Commercial
Zone

$-0.068^{**} + 0.072 =$
0.004^{}**

↑ Increase



Administrative Office
in a Factory

Commercial
Zone

$-0.095^{**} + 0.072 =$
-0.013^{}**

↓ Decrease

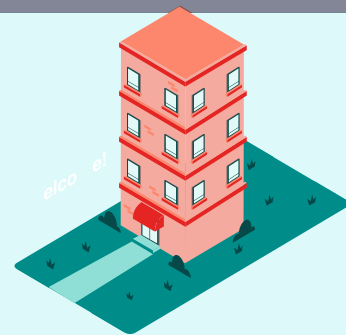


Shopfront

Commercial/
Residential Zone

$-0.063^{**} + 0.072 =$
0.019^{}**

↑ Increase



透天厝
Detached House

Residential
Zone

Baseline

Z=3

5 Heterogeneous Pricing Effects: Administrative Districts

| | |
|-------------------------------------|--------|
| Controlling House Characteristics | Yes |
| Controlling Demographic Factors | Yes |
| Controlling Local Economics Status | Yes |
| Fixed Effect on Location (District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.214 |
| N (Observations) | 69,213 |

2

Before (Multi⁰)

| | |
|----------------------------------|-------------------|
| Datong District ^d | -0.013 (0.026) |
| Zhongshan District ^d | 0.013 (0.019) |
| Zhongzheng District ^d | 0.011 (0.023) |
| Xinyi District ^d | 0.009 (0.009) |
| Da'an District ^d | 0.028 (0.013) |
| Songshan District ^d | 0.022 (0.022) |
| Wenshan District ^d | 0.006 (0.021) |
| Neihu District ^d | 0.016 (0.019) |
| Nangang District ^d | -0.024 (0.025) |
| Beitou District ^d | 0.019 (0.020) |
| Shilin District ^d | 0.005 (0.021) |

1

Dependent Variable: Natural Log of Housing Prices

| | |
|-------------------------------------|---------------------|
| Multi-House-Tax-Policy ^l | 0.066*** (0.024) |
|-------------------------------------|---------------------|

After (Multi¹)

| | |
|---|--------------------|
| Multi ^l * Datong District ^d | 0.002 (0.023) |
| Multi ^l * Zhongshan District ^d | -0.033 (0.026) |
| Multi ^l * Zhongzheng District ^d | -0.037 (0.033) |
| Multi ^l * Xinyi District ^d | -0.016 (0.032) |
| Multi ^l * Da'an District ^d | -0.020 (0.030) |
| Multi ^l * Songshan District ^d | -0.036 (0.031) |
| Multi ^l * Wenshan District ^d | -0.048* (0.028) |
| Multi ^l * Neihu District ^d | -0.031 (0.026) |
| Multi ^l * Nangang District ^d | -0.0004 (0.035) |
| Multi ^l * Beitou District ^d | -0.026 (0.027) |
| Multi ^l * Shilin District ^d | 0.018 (0.029) |

Increase in
Housing Price

Z=3

5 Heterogeneous Pricing Effects: Administrative Districts

| | |
|-------------------------------------|--------|
| Controlling House Characteristics | Yes |
| Controlling Demographic Factors | Yes |
| Controlling Local Economics Status | Yes |
| Fixed Effect on Location (District) | Yes |
| Fixed Effect on Time (Year-Quarter) | Yes |
| Adjusted R ² | 0.214 |
| N (Observations) | 69,213 |

Before (Multi⁰)

| | |
|----------------------------------|-------------------|
| Datong District ^d | -0.013 (0.026) |
| Zhongshan District ^d | 0.013 (0.019) |
| Zhongzheng District ^d | 0.011 (0.023) |
| Xinyi District ^d | 0.009 (0.009) |
| Da'an District ^d | 0.028 (0.013) |
| Songshan District ^d | 0.022 (0.022) |
| Wenshan District ^d | 0.006 (0.021) |
| Neihu District ^d | 0.016 (0.019) |
| Nangang District ^d | -0.024 (0.025) |
| Beitou District ^d | 0.019 (0.020) |
| Shilin District ^d | 0.005 (0.021) |

Dependent Variable: Natural Log of Housing Prices

| | |
|-------------------------------------|---------------------|
| Multi-House-Tax-Policy ^l | 0.066*** (0.024) |
|-------------------------------------|---------------------|

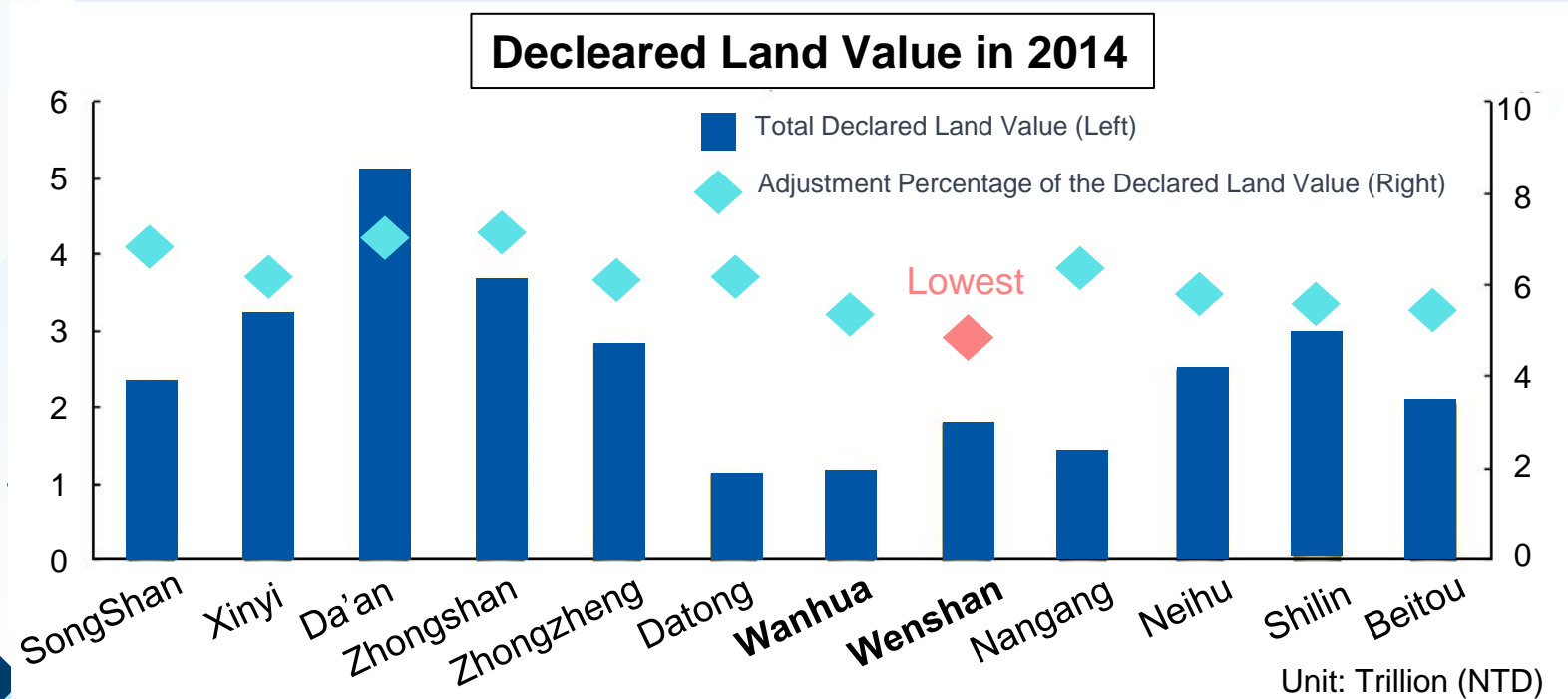
3

After (Multi¹)

| | |
|---|--------------------|
| Multi ^l * Datong District ^d | 0.002 (0.023) |
| Multi ^l * Zhongshan District ^d | -0.033 (0.026) |
| Multi ^l * Zhongzheng District ^d | -0.037 (0.033) |
| Multi ^l * Xinyi District ^d | -0.016 (0.032) |
| Multi ^l * Da'an District ^d | -0.020 (0.030) |
| Multi ^l * Songshan District ^d | -0.036 (0.031) |
| Multi ^l * Wenshan District ^d | -0.048* (0.028) |
| Multi ^l * Neihu District ^d | -0.031 (0.026) |
| Multi ^l * Nangang District ^d | -0.0004 (0.035) |
| Multi ^l * Beitou District ^d | -0.026 (0.027) |
| Multi ^l * Shilin District ^d | 0.018 (0.029) |

Increase in
Housing PriceMulti¹ x
Districts^d0.066-0.048*=
0.18*

Land Present Value and Its Adjustments across Taipei City Districts in 2014



Source: Key Statistics Report in 2014,

Department of Budget, Accounting and Statistics, Taipei City Government



Introduction



Datasets and
Variables



Equations



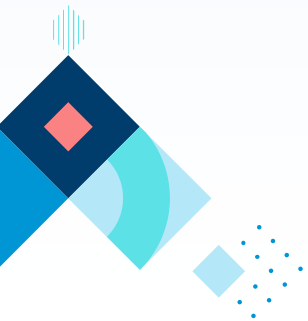
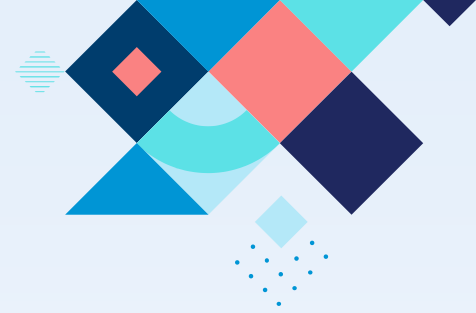
Empirical Study



Conclusion



Suggestions for
Further Studies



Conclusion

1 The multi-house tax policy did not lower housing prices as intended, but instead caused an increase in prices.

2 From a local economic standpoint, there is no indication of positive fiscal capitalization within the Greater Taipei Metropolitan Area.

3 The presence of socio-economic heterogeneities at the district level reveals a unclear correlation between housing affordability and housing prices.

Mansion > Residential Building > Suite > Condominium

4 Fiscal capitalization is evident among collectives of property owners.

5 The adjustment of land value directly impacts the cost of property hoarding and subsequently affects housing prices.



Introduction



Datasets and
Variables



Equations



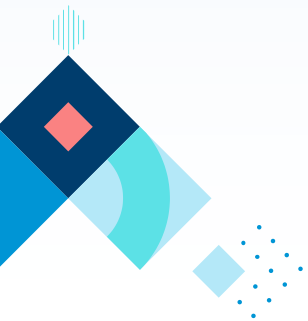
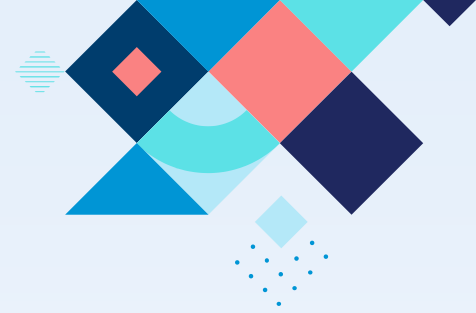
Empirical Study



Conclusion



Suggestions for
Further Studies



Suggestions for Further Studies

Micro-Level Research



The study aims to explore the comprehensive impact of the multi-house tax policy, requiring further research on tax inequality and its implications.

Spillover Effect on Housing Prices



- Spatial regression analysis with Moran's I allows studying spillover effects on neighboring districts caused by increasing housing prices.
- Alternatively, separate multiple regressions can be employed for New Taipei and Keelung.

Accurate datasets for Local Economic Status



Utilize median income tax as a local economic indicator. Include longitude and latitude in the Actual Price Registration dataset for accurate analysis of average income tax at the Li level.

Rigorous Redesign for Interactions



Redesign the dummies for local economic status where Multi^1 interacts, ensuring that the interacted dummies are not assigned to those under Multi^0 .

Variation of National-Level Policy



The impact of the "integrated house and land policy 2.0" hasn't been taken into account in this paper. It's suggested to consider incorporating a binary dummy to capture its effects.



Thank You



Descriptive Statistics

| N=251,580 | <i>Mean</i> | Median | <i>SD</i> | Min | Max |
|---------------------------|-------------|-----------|------------|----------|----------------|
| Log of House Prices | 16.272 | 16.249 | 0.8228446 | 8.483 | 24.020 |
| House Prices | 17,190,000 | 11,400,00 | 69,847,089 | 4,831 | 27,030,000,000 |
| Transferred Building Area | 27.66 | 21.47 | 304.6755 | 0 | 10014.30 |
| Transferred Land Area | 143.91 | 115.68 | 70.95542 | 0.02 | 69125.53 |
| Households | 93488 | 89499 | 48693.57 | 2359 | 207151 |
| Gender Ratio | 95.60 | 95.90 | 3.764224 | 87.35 | 126.22 |
| Population Density | 12175 | 8095 | 10151.26 | 38 | 40089 |
| Structure Age | 23.562 | 22.889 | 13.61863 | 5.968 | 111.999 |
| Vacancy Rate | 0.08364 | 0.06987 | 0.035640 | 0.04490 | 0.32502 |
| Birth Rate | 0.009350 | 0.009349 | 0.001507 | 0.004018 | 0.012622 |
| Death Rate | 0.005743 | 0.005807 | 0.001075 | 0.003966 | 0.015760 |
| Marriage Rate | 0.006940 | 0.007068 | 0.000553 | 0.003167 | 0.008012 |
| Divorce Rate | 0.002411 | 0.002456 | 0.000300 | 0.001058 | 0.003441 |
| Avg. Ind. Income Tax | 1001.3 | 924.8 | 239.5556 | 618.7 | 1933.3 |

Note. "Avg. Ind. Income Tax" means "Average Individual Income Tax in Districts."