

Assessing the Impact of Subsidized Housing Policy on Urban Housing Affordability

An Empirical PSM-DOD Analysis of Large and Medium-sized Cities in China

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1. Introduction

• Urbanization & Housing Crisis

China's urbanization rate grew from 17.9% in 1978 to 66.2% in 2023. Sustained housing price growth brings affordability pressure to new residents and young groups.

• Policy Intervention (14th Five-Year Plan)

China launched subsidized rental housing policies in 2021. The country plans to build 8.7 million subsidized housing units and it aims to ease housing market pressure and supports disadvantaged groups.

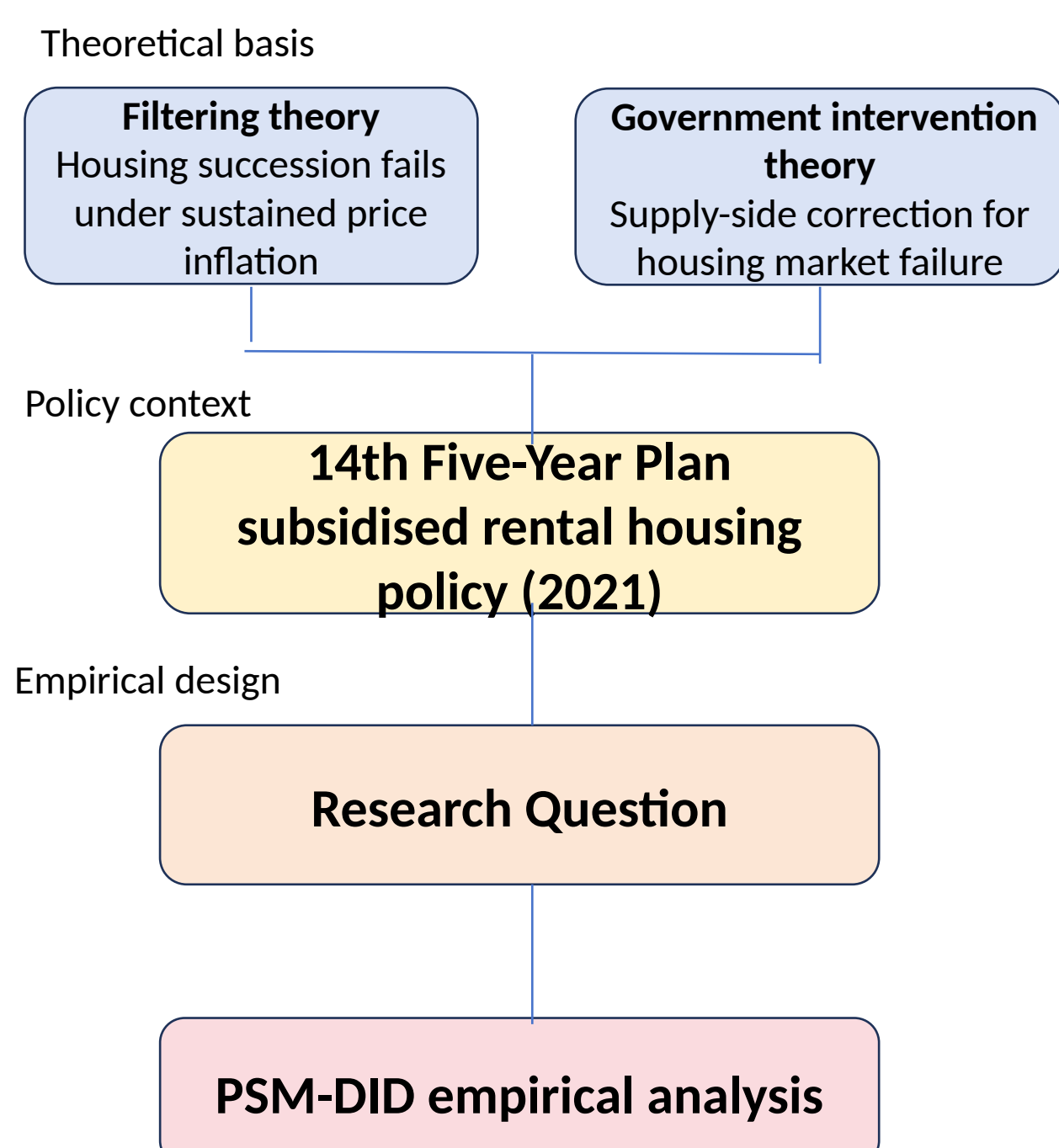
2. Research Aims & Question

This study aims to evaluate policy impacts on housing affordability among different cities.

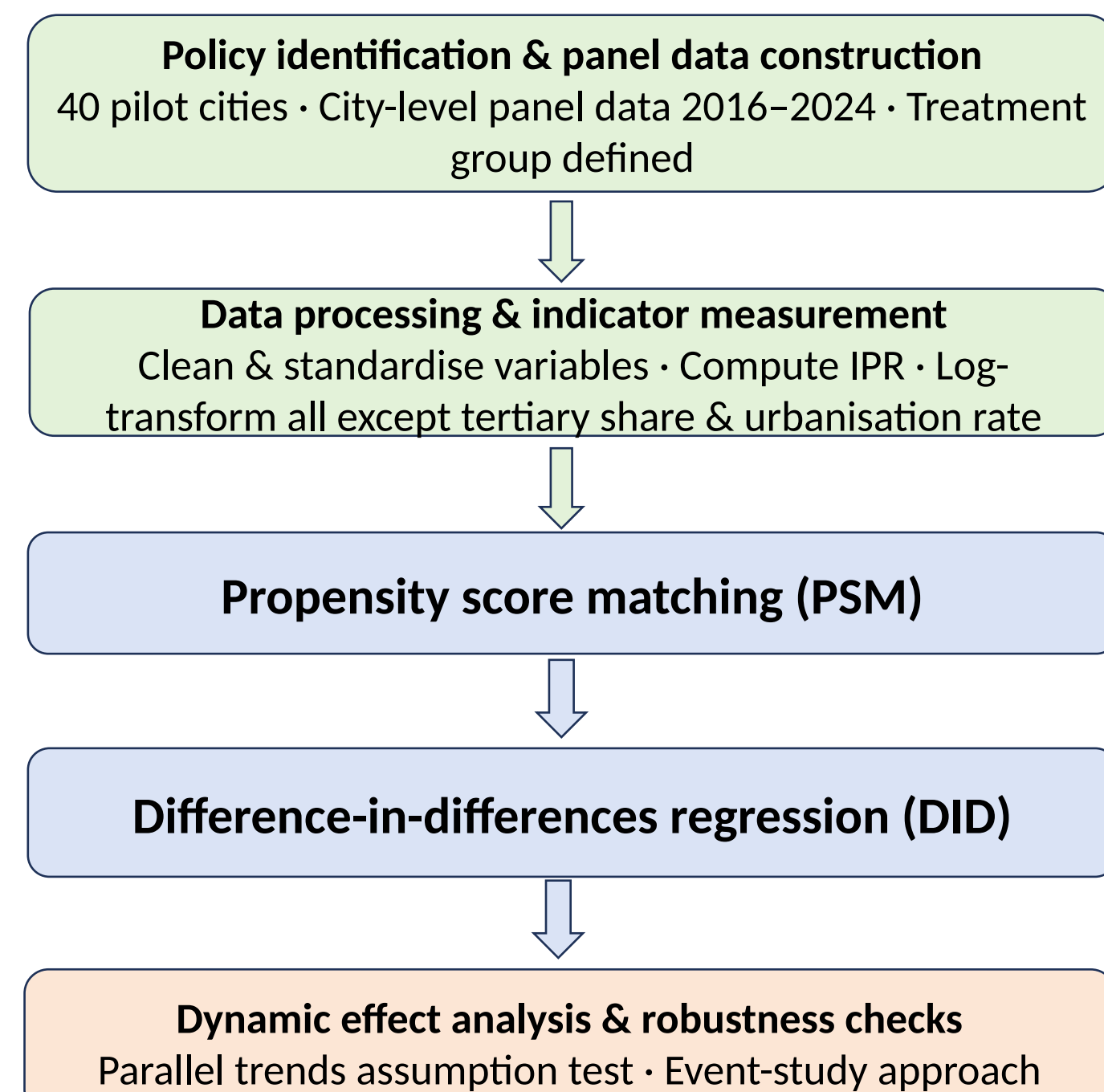
1. To what extent does the policy improve housing affordability?
2. What are the lagged and long-term dynamics of the policy?
3. How does the impact vary by city characteristics?

3. Research Design

Theoretical Framework



Research Design



4. Methodology

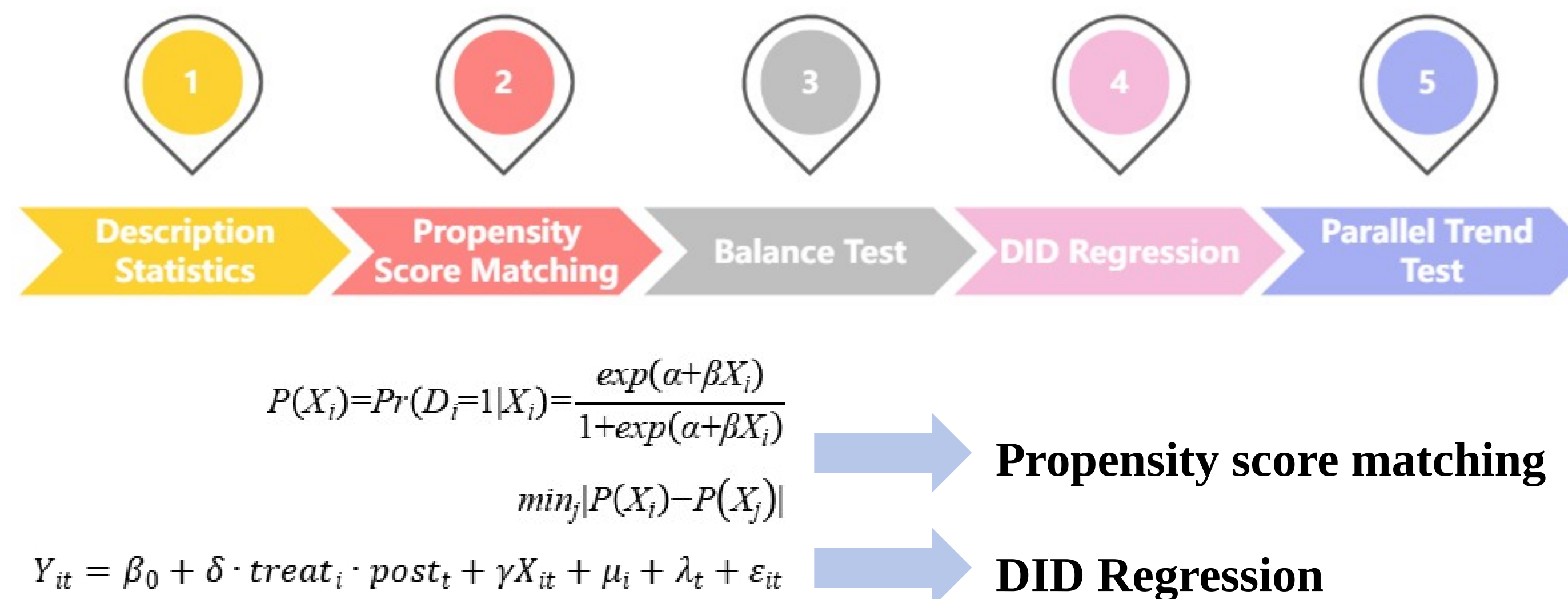


Fig 1. Quantitative analysis flow chart

Tab 1. Variable list

Category	Variable
City information	province, city name, city code, year
Urban development	share of tertiary industry, urbanization rate, public revenue, public expenditure
Population	average income, resident population, population density, average consume, average GDP
Real estate	average residential housing price, residential housing sale area, residential housing sale volume

Data sources:

China Urban Statistical Yearbook, Anjuke Housing Trading Platform, etc.

5. Quantitative analysis results

Tab 2. PSM balance test

Sample	Ps	R2	LR	chi2	p>chi2	MeanBias	MedBias	B	R	%Var
Unmatched	0.892	208.25	0	197.6		175.3	203.5345.5*	33		
Matched	0.431	4.77	0.573	27.5		19.9	11.6	87.6*	0	
* if B>25%, R outside [0.5; 2]										

After the matching, the covariate bias between the experimental group and the control group was controlled within 30%.

Tab 4. DID regression result

ln_ipr	Coef.	St.Err.	t-value	p-value	95% Conf Interval	Sig
treat#1 : base 0	0.247	0.027	9.13	0	0.186 0.308	***

DID regression results showed a significant positive impact of the pilot policy on housing affordability.

the parallel trend hypothesis holds, and the policy effect gradually releases and strengthens over time, which also proves the authenticity and robustness of the PSM DID estimation results.

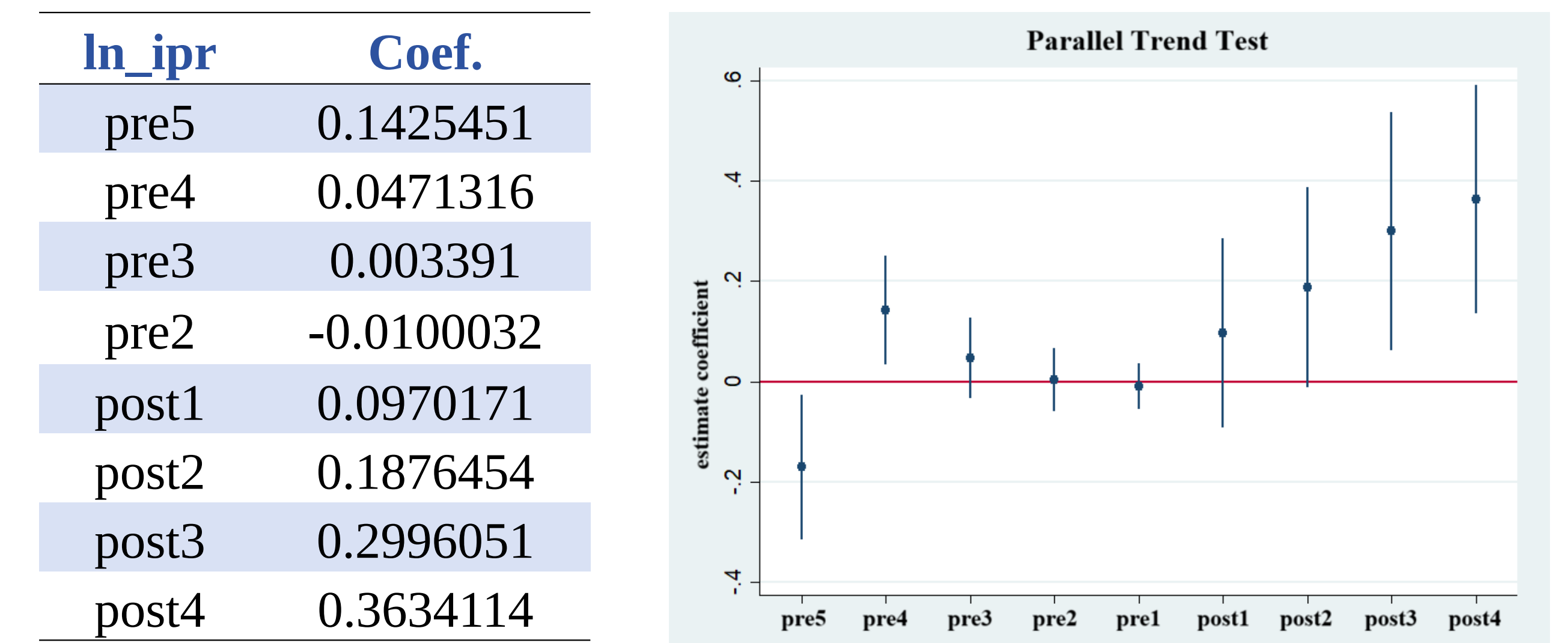


Fig 2. Parallel trend test

6. Research Conclusions

- 1 The subsidised housing pilot policy significantly improves housing affordability.
- 2 The policy effects have a clear time lag and long-term cumulative characteristics.
- 3 Urban heterogeneity has a significant impact on housing affordability.



7. Policy Implications



- **Expand Policy Coverage**
During the 15th Five-Year Plan period, pilot scope should expand, especially to second- and third-tier cities with large net population inflows.



- **Adapt to Local Conditions**
Different cities vary greatly in population density, stage of urbanisation and industrial structure, so policy design should be precise.

- **Cross-Regional Coordination**
Eastern cities already have good experience in building standards, operation models, and funding. National authorities should regularly organise policy exchanges and share successful cases.