Original Article

Real Estate Bubbles in China's Mega Cities - Government Policies and Lessons for Vietnam

Le Phuong Lan[1,*], Nguyen Thi My Linh[1], Doan Hoang Khanh Linh[1],
Nguyen Hoang Mai[1], Nguyen Tu Hieu Ngan[1], Chu Thien An[1], Nguyen Thi My Anh[2]

[1]Foreign Trade University, 91 Chua Lang, Hanoi, Vietnam
[2]American Chamber of Commerce in Hanoi, 5 Tu Hoa, Tay Ho, Hanoi, Vietnam

Abstract: This study uses a comparative, qualitative case study approach to analyze the dynamics of real estate bubbles in China's megacities and draw relevant policy lessons for Vietnam. Based on secondary data sources, the study is conducted in two phases. In the first phase, the study confirms the existence of real estate bubble cycles in major cities in China and Vietnam, highlighting the core commonality of asset prices being decoupled from economic fundamentals. In the second phase, the study analyzes the Chinese government's policy intervention portfolio, notably home purchase restrictions, credit (tightening lending), and property tax pilots. The expected result is that although these policies in controlling speculation are effective, they also cause unintended fiscal consequences at the local level. By comparing the institutional contexts between the two countries, the study identifies policy instruments that could be applied in Vietnam, while emphasizing the need for long-term, locally relevant solutions rather than short-term measures.

Keywords: real estate bubble, China, Vietnam, government policy, comparative analysis, housing market.

1. Introduction

In recent decades, the real estate sector has made a significant contribution to the development of developing countries. Across the world, although housing markets can lead to economic growth during boom periods, it can also have some negative effects when speculative excesses occur. Among emerging economies, China's real estate market, particularly in megacities such as Beijing, Shanghai, and Shenzhen, stands out as a

compelling case. The rise and subsequent moderation of housing prices in these cities provide critical insights into how government policy can both create and resolve speculative bubbles.

Although extensive research has identified the determinants of real estate bubbles such as credit expansion, speculative behavior or institutional incentives, there still remains a gap in the literature concerning how governments can effectively resolve existing bubbles without destabilizing the broader economy. This study addresses that gap by shifting the analytical focus from causation to resolution, specifically by examining how the Chinese government's policy portfolio since 2010 has been implemented to contain speculative overheating and redirect the market toward sustainable development.

Regarding the housing sector in Vietnam, this has some great similarities to China. The real estate market in Vietnam is a key engine of economic growth while simultaneously showing early warning signs of speculative excess. Similar to China, Vietnam's property market is characterized by abundant liquidity, limited transparency, and a strong urban-development bias concentrated in metropolitan centers such as Hanoi and Ho Chi Minh City. Moreover, the structural resemblance between the two economies in policy orientation, market psychology or demographic trends makes China's experience an invaluable comparative case for Vietnam. Unlike prior studies in Vietnam that largely focus on identifying asset bubble drivers or macroeconomic imbalances, this study undertakes a cross-national comparison of China's adaptive use of coordinated policy portfolios, emphasizing how government instruments are deployed over time and space to manage overheating real estate markets.

Therefore, this study aims to analyze the evolution of real estate bubbles in China's mega cities, evaluate the effectiveness of government interventions across different policy dimensions, and finally draw actionable lessons for Vietnam's policy design.

2. Literature Review

2.1. Defining the "Real Estate Bubble"

A real estate bubble in academic literature is defined as the deviation of housing prices from market fundamentals, followed by a subsequent collapse [1-3].

In addition to the fundamental definition, previous researchers stress the pivotal role of psychology of the market and speculative behavior, stating that a housing bubble is when "excessive public expectations of future price increases cause prices to be temporarily elevated" [4]. Chen [5] also refined the concept by stating that a real estate bubble occurs when housing prices rise continuously above the intrinsic value, which is due to speculative activities. This proves that a bubble is not just an overvaluation, but a process that keeps going because everyone believes in it. Begg [6] describes this behavioral aspect as having a predictable lifecycle that goes through five stages: i) Shift in the economy that gets investors' attention; ii) Boom when prices go up and people are afraid of missing out; iii) Excitement when prices go up and people stop being careful; iv) Profit when when savvy investors make money by selling assets; and v) Panic when prices plummet as rapidly as they increased.

To empirically identify these phenomena, especially in emerging economies such as China, previous researchers have operationalized the concept of a bubble in two principal ways. As mentioned above, the first and most common way to do this is to measure the deviation from fundamentals. However, a newer statistical method has become more popular. This framework, employed by Zhang et al., [7], defines a bubble not through its deviation from elusive fundamentals but via its statistical characteristics. In this context, a real estate bubble is defined as a time when housing prices are rising at a rate that is consistently different from the normal trend, which is called "explosive behavior".

2.2. Theoretical Frameworks for Explaining Bubbles

A dominant theoretical framework for explaining real estate bubbles is based on the concept of deviation from economic fundamentals, which is measured by income or rental yields. Researchers like Case and Shiller [4] used this framework to study how the price-to-income (P/I) or price-to-rent (P/R) ratios change. The methodology often includes checking to see if these time series are stationary. If property prices are determined to be non-stationary while income or rent levels remain stationary, or if both are non-stationary and their ratio is also non-stationary, it offers statistical evidence that prices are systematically deviating from fundamentals, thereby validating the existence of a bubble. Recent studies, notably Chen [5], also use this fundamental framework in order to analyze P/I ratios in China's first-tier cities. Researchers also develop more complex composite measures, like the "combination measurement model based on closeness degree" proposed by Wang et al., [8], to improve the accuracy of bubble detection within this fundamentals-driven framework.

The second framework focuses on real estate bubbles regarding rapid change in housing prices and rational expectations. Roy and Kemme [2] contend that a bubble can be explained using the present value theory in finance, with the prices sustained by the rational expectations of investors about continuous growth, despite housing price inflation. In order to confirm this framework, researchers, such as Tsai and Chiang [1] and Zhang et al., [7], identify periods in which historical data of housing prices exhibit "explosive behavior" using the Generalized Sup Augmented Dickey-Fuller (GSADF) test. This econometric method is made to "find and measure real estate bubbles" by repeatedly testing a time series for times when prices move quickly, which marks the start and end of the bubbles.

The third framework looks at the movement of bubbles through different locations. This framework is crucial, especially in huge markets like China, which is called the "spillover effect". It is when speculative pressure and investment capital do not show up in the same way. According to Tsai and Chiang [1], real estate bubbles often occur in Chinese first-tier cities due to a substantial amount of investment. When prices in these markets get too high, money will spread into second- and third-tier cities, then also lead to the rise in housing prices in those cities. The researchers utilize the Diebold and Yilmax spillover index, which is derived from a generalized vector autoregression (VAR) framework, in order to evaluate this transmission mechanism.

2.3. Empirical Evidence and Causal Factors

2.3.1. Research in China

Firstly, in terms of macroeconomic drivers for the real estate bubbles in China, previous academic research emphasizes excess liquidity and loose credit, which is fueled by expansionary monetary policies, and the reduction of interest rate [1, 5]. The conditions of abundant capital, combined with China's sustainable GDP growth, rising incomes, and excessive savings, have made a great contribution to the real estate market [1, 7]. According to Wang [9], this environment is an "overheating economy" as the "three carriages" of consumption, export, and investment contributed to a large influx of capital into the Chinese real estate market.

Secondly, institutional and government policies in China also play a crucial role in funneling capital into real estate. Those policies have been called "urban-biased" focus, meaning that it will concentrate national resources in first-tier cities based on the "Growth Pole Theory". This made these cities the initial magnets to attract investment and the beginning points for bubbles [1]. A political economy dynamic of "power rent-seeking" exacerbates this situation. Local governments, which often get money from selling land, want property values to stay high [9]. In addition, the system's lack of different ways to invest has meant that, with a risky stock

market, both people and businesses have had few options other than real estate. This has led to a concentration of investment and risk in one sector [1].

Finally, investor behavior is the factor that makes speculative bubbles happen. In China, this has been derived from investor hopes, common beliefs, and the desire to speculate [7, 9]. Tsai and Chiang [1] emphasize the "traditional belief about land", creating a strong demand for real estate as the primary store of wealth. This combination of cultural tendency towards property and optimistic behavior for future price appreciation creates a strong psychological feedback loop that keeps bubble dynamics inflating.

2.3.2. Research in Vietnam

Firstly, the occurrence of real estate bubbles in Vietnam can be confirmed by macroeconomic drivers, including GDP growth and an increase in income per capita [10-12]. Other significant drivers are inflation (measured by CPI), the inflow of Foreign Direct Investment (FDI), the influence of global economic stability, and the loan outstanding balance [13, 14].

Secondly, the Vietnamese real estate market often has less mature regulatory policies, transparency, and oversight, making it more susceptible to speculation and volatility [13]. Expansionary monetary policy, with a low lending rate and easy access to credit, is also a fundamental driver that has a direct effect [11, 14]. These credit policies are often regarded as influential institutional mechanisms capable of either stimulating or dampening the market [10, 12]. Localized institutional quality, which is measured by the provincial competitiveness index (PCI), can impact investment flows and market dynamics at a regional scale [10].

Thirdly, regarding converting macroeconomic potential into a speculative bubble in Vietnam's housing market, it is essential to focus on behavioral dynamics and demographic trends, especially speculative sentiment and expectations in future housing prices. According to Long and Doan [14], the most striking factor that affects current prices is

the historical increase in prices and the beliefs in the continued appreciation. The "wealth effect" is another example of this, where rising property values make homeowners feel wealthier and tend to spend more [13]. In terms of demographic trends, the behavioral patterns are constructed based on a high net migration rate to major cities in Vietnam, such as Hanoi and Ho Chi Minh City. This factor leads to an increase in the demand for real estate, which is the foundation for speculative activities [10].

2.4. Policy Responses and Effectiveness

Administrative interventions play a critical role in defining China's real estate market dynamics. Since the 1998 Housing Reforms, Beijing has continuously established regulations and imposed policies so as to promote economic growth, control housing speculation, and support sustainable urban development while balancing market stability and social equity. Such measures include the regulation of land supply, restrictions on credits and mortgage lending, and policies aimed at cooling down overheated property markets in certain cities (Home Purchase Restriction, Three Red Line policies, Credit Tightening, Property Tax, etc.) [15]. All the intervention of the Chinese government on the property sector could be divided into 4 main categories: Macroprudential Policy, Fiscal Policy, Monetary Policy, which is often cross-cutting, with a special exception being the purely administrative policy Housing Purchase Restrictions (HPR) [16].

2.4.1. Macroprudential Policy

Macroprudential policy is defined as "the broader approach to safeguard the financial system as a whole", aiming to systematically regulate and supervise the financial system (IMF). The effectiveness of macroprudential policies in economic growth perseverance and asset prices control was recognized by van Bekkum et al., [17]. According to He et al., [18], the most commonly used macro-prudential tools of the Chinese government were the loan-to-value ratio (LTV) and countercyclical capital

buffer (CCyB). These instruments acted as constraint mechanisms used to reallocate assets of banks and households, managing housing prices and credit, then ultimately maintaining financial stability. Regarding LTV, in China, the LTV policies have significant impact in the mortgage market, influencing both choices in not only homeownership but also housing investment. The DSGE model proposed by Forster and Sun in 2022 also proved that putting a cap on the maximum LTV ratio could create downward pressure on housing prices amid the booming era and contribute to default risk reduction. About CCyB, this instrument belongs to the Basel III regulatory capital framework, defined as the mechanism to increase additional capital in the context of excessive credit growth coupled with systematic stress (Hong Kong Monetary Authority). In China, CCyB indirectly commands the real estate market by managing banks' mortgage loans, requiring Chinese banks to build up more capital to reduce excessive lending, ultimately countering the cyclical nature of their domestic housing market, curbing the impact of the bubble.

2.4.2. Fiscal Policy

Our analysis identifies three common components of Chinese fiscal policies aimed at the real estate sector, including government expenditure policies, property tax and housing subsidy. As a macro-fiscal tool, government spending influences both the demand and supply sides of the real estate market through direct investment, fiscal subsidies, and housing project spending. Research shows that government investment in housing security, affordable housing, and housing finance systems can alter residents' purchasing and rental behavior as well as developers' investment behavior, thereby influencing housing prices and investment enthusiasm [19]. In China, the relationship between GE and housing prices is particularly pronounced, reflecting the country's heavy reliance on fiscal policy as a tool of macroeconomic management and its unique pattern of rapid urbanization.

China's GE has expanded rapidly, reaching 28.6 trillion yuan in 2024 - four times higher than a decade earlier - driven by sustained public investment and a growth-oriented fiscal stance. Numerous studies affirm that GE, especially in infrastructure and public services, has a strong positive effect on HP, as it enhances city competitiveness, attracts population inflows, and increases real estate value [20, 21]. The quasi-natural experiment based on China's Land Quota Policy Adjustment [22] demonstrates that tighter land quotas significantly raise housing prices, particularly in coastal provinces and areas with high land-transfer dependency. There is also regional heterogeneity in policy effectiveness. In provinces with higher reliance on land transfer to generate local government revenue, fiscal expansion is more likely to intensify real estate price volatility. Conversely, inland provinces where the primary use of GE is for infrastructure upgrading witness delayed housing price effects. This variation uncovers the consistent problem embedded in China's decentralized fiscal system: higher GE fuels land investment, increasing land revenue, further incentivizing expansionary fiscal behavior and housing price growth. Despite its negative impact on real estate prices, the Chinese government's increased GE remains as a crucial policy initiative which boosts market confidence and protects people' well-being thanks to enhanced infrastructure development.

Regarding property tax, this instrument only had minimal economic significance until recent modern implications by the Chinese government at municipal level. While the Shanghai program focused on newly purchased non-primary homes by both residents and non-residents to limit speculative activities, the Chongqing program targeted high-end real estates and non-local people. Empirical results showed minimal reduction in Chongqing housing prices and zero impact on Shanghai property prices, and in both cities the personal property tax was not a major source of local tax revenue. Nevertheless, property tax still holds potential as a crucial fiscal and regulatory instrument for the housing

industry, thanks to its profound influence on people' capital accumulation and welfare as proved by Bai et al., [23].

2.4.3. Monetary Policy

Monetary policy is broadly defined as the strategic management taken by a country's central bank to influence the availability and cost of money and credit in the economy. The policy's primary aims are to maintain price stability, curb inflation, and support sustainable economic growth, typically through policy tools such as interest rate adjustments, open market operations, and reserve requirements. The transmission of these policies to the housing sector occurs through 3 channels. These include (i) the interest rate channel (affecting mortgage rates and housing demand), (ii) the credit channel (influencing banks' lending behavior), and (iii) the expectation channel (shaping household and investor sentiment) [24]. In the context of housing bubbles, lower interest rates increase borrowing capacity and housing demand, potentially inflating prices; conversely, tighter monetary conditions can temper speculative behavior and reduce systemic risk [24-26].

Empirical literature across countries demonstrates the ability of monetary policy to suppress overheating in real estate markets. For instance, research on Chinese cities demonstrates that tighter monetary conditions, reflected through higher interest rates or restrained credit supply, significantly decelerate housing price growth, particularly in speculative markets [27, 28]. In the context of global evidence, various studies have also shown that well-calibrated monetary tightening can reduce asset price inflation without triggering a severe recession [25, 26]. Furthermore, macroprudential adjustments, when combined with monetary instruments, create complementary effects in restraining credit-fueled housing booms. For example, economies such as New Zealand and Sweden combined rate hikes with macroprudential regulations like LTV (Loan-to-Value) and DTI (Debt-to-Income)

limits to effectively rein in credit-fueled price escalation [29].

Many countries have implemented monetary policy as a central instrument in addressing real estate excesses. For example, South Korea employed policy rate hikes in tandem with LTV ratio adjustments to manage property overheating [30]. Similarly, the European Central Bank and the Bank of England adopted unconventional monetary tools such as quantitative easing and forward guidance during post-crisis recoveries, with evidence showing their effectiveness in restoring market liquidity and dampening financial fragility [29]. In Japan, the Bank of Japan's prolonged low interest rate regime and asset purchase programs aimed at countering stagnation also had complex implications for housing demand, particularly through the mortgage market [31].

In China, monetary policy has been deployed in distinct phases since the early 2000s to counteract bubbles. For instance, during the periods 2005 - 2007 and 2010 - 2011, facing unprecedented urbanization and a surge in speculative investment in Tier-1 cities, the People's Bank of China (PBoC) engaged in cyclical monetary tightening through benchmark rate hikes, reserve requirement adjustments, and credit quotas. Additionally, the government often coordinated monetary tightening with fiscal and administrative measures, such as home-purchase restrictions, to amplify the dampening effects on speculative behavior [32]. As observed in multiple studies, such as [28], these combined efforts significantly slowed housing price growth, especially in the most overheated urban centers. However, this effect was often lagged, indicating the importance of timely intervention and complementary policy instruments. Furthermore, monetary dynamics in China have been intricately linked with cross-border capital movements. As observed during expansionary periods, "hot money" inflows, driven by global liquidity and speculative arbitrage, exacerbated housing bubbles in cities with greater financial openness [27].

In contrast, Vietnam's institutional and financial landscape presents distinct challenges to monetary policy implementation. Although Vietnam shares similar pressures from rapid urbanization and high housing demand, its policy transmission mechanism is comparatively weaker. This is due to structural features such as interest rate caps, a large informal credit sector, state dominance in banking, and limited market depth [24, 33, 34]. Consequently, policy rate changes in Vietnam have shown muted influence on housing credit and prices. For instance, research by Lan et al., [33], despite monetary tightening, real estate bubbles in Hanoi persisted, driven instead by speculative expectations, land scarcity, and regulatory gaps. Moreover, Vietnam's monetary transmission mechanism remains less effective due to structural rigidities, a high degree of dollarization, and limited financial market depth [35]. This weakens the influence of interest rate changes on mortgage demand and housing investment, thus reducing the potency of monetary policy as a housing stabilization tool.

However, not all monetary policy interventions have yielded success. Historical experiences from Japan and the United States reveal the limitations and potential pitfalls of relying solely on monetary policy to manage asset bubbles. In Japan, sustained monetary easing post-bubble contributed to a liquidity trap and long-term stagnation, highlighting the risk of delayed exit from expansionary policies [31]. Similarly, in the U.S. pre-2008 crisis, prolonged low interest rates underpinned excessive credit growth and speculative investment in housing, exacerbating systemic vulnerabilities [36]. These cases underscore the necessity of adopting a well-timed, coordinated policy mix, combining monetary, fiscal, and regulatory tools, tailored to specific macro-financial contexts.

2.4.4. Housing Purchase Restrictions

Home Purchase Restriction (HPR) policies refer to government-imposed limits on the number or types of residential properties that individuals or households can legally purchase. These restrictions typically target non-resident buyers or households seeking to buy multiple homes, aiming to reduce speculative demand and promote housing affordability. In practice, HPRs may be implemented as outright bans on second or third home purchases, or as conditional policies based on residency, income level, or tax contributions. These policies often include several regulatory tools, such as: i) Household registration (hukou)-based eligibility; ii) Caps on the number of units owned; iii) Down payment and mortgage rate adjustments; and iv) Differentiated credit policies. In many jurisdictions, HPR is deployed in tandem with other measures like property taxes, price ceilings, and macroprudential regulations to reinforce its effectiveness in suppressing speculation and moderating house price volatility. Although often perceived as blunt tools, their direct impact on speculative demand renders them particularly attractive in contexts where monetary policy transmission is weak or delayed.

In the case of China, HPRs have been central to the country's evolving real estate governance framework. Faced with rapid urban migration, credit expansion, and speculative fervor in Tier-1 cities, the Chinese government introduced city-specific HPRs starting in 2010. By restricting households from owning more than two properties, and non-residents from buying more than one, authorities aimed to curb speculative hoarding and cool overheating prices. These policies were implemented in coordination with credit controls and monetary tightening, forming a comprehensive intervention package. Notably, restrictions targeted non-local residents through the hukou household registration system, raised the required down payment ratios for non-first-time buyers, and introduced resale limitations to dampen short-term speculation. For example, a study by Du and Zhang [32] shows that the introduction of HPRs in Beijing in 2010 reduced the annual growth rate of housing prices by 7.69% compared to a synthetic control group without the policy. Moreover, HPRs outperformed property taxation in terms of

immediate effectiveness in price containment. However, Sun et al., [37], Somerville et al., [38], Wang et al., [39] illustrate that these interventions reduced demand then surged price growth especially in high-pressure and speculative districts of Beijing. Other research points out that HPRs can shift speculative capital into unregulated markets or lower-tier cities, creating spatial spillover effects that complicate overall market stabilization [40].

Internationally, comparable policies have been deployed in diverse forms. Singapore's Additional Buyer's Stamp Duty (ABSD), which imposes higher transaction taxes on foreigners and multiple-property owners, has had a pronounced cooling effect on speculative segments [41]. New Zealand's 2018 ban on non-resident buyers of existing homes aimed to insulate its housing market from foreign capital inflows. Even in developed markets like Canada and Australia, various provinces and states have enacted restrictions to manage external demand. These international cases reinforce a broader recognition that fiscal-style housing controls can complement macroprudential and monetary policies in stabilizing asset markets.

Nonetheless, the effectiveness of HPR depends heavily on the institutional and enforcement context. While speculative activity in cities such as Hanoi and Ho Chi Minh City mirrors patterns observed in Chinese urban centers, the Vietnamese institutional context diverges sharply. Vietnam lacks a unified property registry system, comprehensive credit reporting infrastructure, and the kind of inter-governmental policy coordination seen in China. Although some restrictions on foreign ownership exist, they are narrow in scope and often circumvented through legal entities or local partnerships [33, 42]. Studies examining Hanoi's real estate market dynamics during periods of monetary tightening suggest that speculative activity persists largely unchecked, driven by expectation-led behavior, fragmented land-use regulations, and limited taxation on idle property [33, 43].

3. Methodology

3.1. Research Design

This study adopts a comparative case study design with a descriptive and exploratory orientation. The research question seeks to understand the process of real estate bubble development in Chinese megacities, whether similar dynamics exist in Hanoi, and what policy might be applicable to Vietnam's current state. They are neither suitable for experimental or quasi-experimental designs, which require controlled conditions, nor for correlational studies, which focus primarily on statistical associations. Instead, a case study design will allow a contextualized, in-depth exploration of complex socio-economic and policy components across institutional settings.

With a comparative approach, the study highlights shared features of two countries' bubble dynamics and context-specific environments, enabling a richer analysis than through purely descriptive methods. Thus, design is thus aligned with the objective of drawing critical, evidence-based lessons from the Chinese experience for Vietnam.

3.2. Research Method

In order to capture the institutional complexity, policy processes and market dynamics that numerical indicators can not portray, we decided to employ qualitative research methods. While quantitative approaches, such as econometric modeling, are widely used to measure price bubbles, this study favors qualitative interpretation to assess policy effectiveness, institutional fit, and unintended consequences.

The research problem extends beyond whether bubbles exist or not but also how they are shaped within institutional conditions and what are the most applicable policy responses, this requires careful attention to contextual differences and interpretive approach rather than numerical. A qualitative method allows researchers to synthesize across diverse forms of

evidence - statistical, documentary, and scholarly - into a coherent narrative and comparative framework. This methodological choice reflects the emphasis on policy relevance rather than on testing a specific statistical hypothesis.

3.3. Research Instruments

As the study relies entirely on secondary sources, the primary instruments are document analysis and desk research technology, chosen as they provide multi-perspective and longitudinal coverage across the research period of 2010-2025. They also enable triangulation, whereby findings from one source can be cross-checked against others for consistency. Sampling data sources are divided into these categories:

i) Government statistics: Housing price indices, household income data, urban growth indicators, and credit statistics published by China's National Bureau of Statistics and Vietnam's General Statistics Office.

ii) Policy documents: Laws, regulations, circulars, and policy announcements from national to provincial administrative divisions, especially those targeting housing affordability and speculative demand.

iii) Academic literature: Peer-reviewed journal articles, books, and papers on housing bubbles, macroeconomic policy, and urban development.

iv) International reports: International Monetary Fund (IMF), World Bank, OECD, and Asian Development Bank assessment.

v) Industry analyses: Market research reports from real estate consultancy firms and financial institutions.

3.4. Sampling Strategy

Sampling in this study refers to purposive case selection, which refers to the technique where data sources or case studies suitable for answering given research questions are purposively selected, rather than to individual respondents. Seven Chinese megacities - Beijing, Shanghai, Chongqing, Shenzhen,

Tianjin, Chengdu, Wuhan - were purposively selected based on three criteria:

We opted to choose the cities that (i) Are among the largest and most economically important urban centers in China, with significant influence on national housing dynamics; (ii) Are the direct targets of government housing policy interventions for relevancy - including but not limited to HPR, credit regulations, and property tax pilots - to serve the objective of evaluating policy effectiveness and ensuring comparison relevancy to Hanoi; and (iii) Provide a diversity of geographical contexts - the selection spans to both coastal and inland regions, capturing variation in urban development trajectories.

3.5. Data Collection

Data collection was conducted through synthesizing existing document studies aside from authorized market data extracted over the period 2010-2025.

For inclusion criterias, we chose to emphasize recency, credibility, and direct relevance to housing market dynamics or policy evaluation using keywords related to China's housing policy. Documents lacking clear authorship or produced by non-credible sources such as from predatory publishers were excluded to maintain quality control. The Data collection process included these activities:

i) Retrieving official housing market data (housing price indices, mortgage lending volumes, land supply statistics, construction activity, and macroeconomic indicators) from government statistical agencies.

ii) Collecting policy texts and official announcements from Chinese and Vietnamese ministries and municipal governments.

iii) Reviewing academic literature via databases (JSTOR, ScienceDirect, SpringerLink and Google Scholar.

iv) Accessing international financial institution reports from official repositories.

v) Compiling industry research reports and think tank publications.

The empirical data extracted at governmental or municipal level provided a foundation for tracing the process of bubble formation, peak and correction; while academic documents informed the rationale, design, and outcomes of policy measures extend above price trends interpretation.

Furthermore, to ensure the relevance and analytical value of the dataset, a three-stage exclusion process was applied throughout document sampling and thematic analysis, refining the dataset at different levels of depth. At each stage, documents were excluded if they:

Stage 1: Pre-screening - During the initial sampling

- Did not discuss real estate policy and its influence to housing prices and/or housing bubble;

- Lacked transparent methodology or data sources; and

- Lacked substantial content for analysis (news briefs, unfinished documents).

Stage 2: Post-coding - After familiarization and initial coding

- Produced no relevant codes to the research questions;

- Provided no policy effectiveness analysis; and

- Overlapped with other sources without contributing new insights.

Stage 3: Data triangulation

- Presented contradicted claims against other multiple sources; and

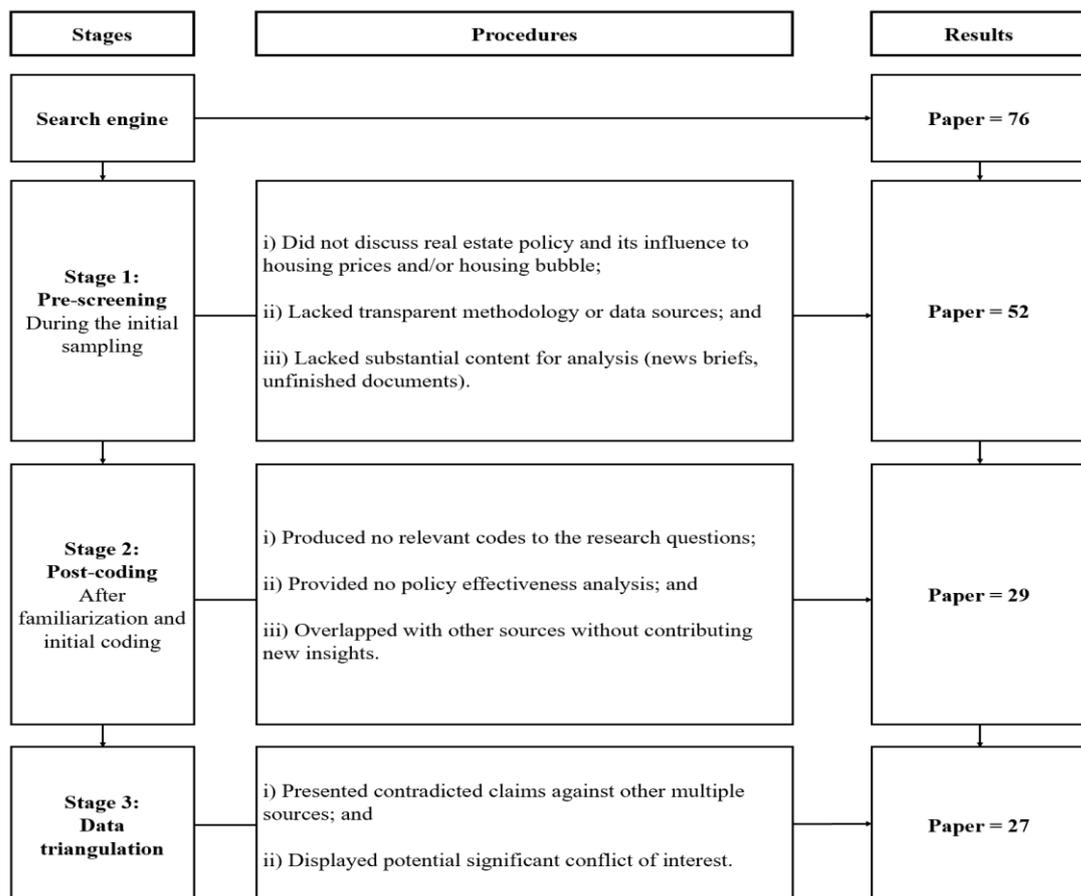- Displayed potential significant conflict of interest.

Figure 1. Result of three-stage exclusion process.

3.6. Data Analysis

The analysis proceeded in two stages.

During the first phase, indicators were examined using published work to identify different periods of housing bubbles and phases of escalation, stabilization, and correction in housing prices; as well as the fundamental drivers of China's housing bubble. We then drew comparisons between China and Vietnam' housing market, to see whether Hanoi followed a similar trajectory of China's megacities; or at least, shared some characteristics with them.

Step 1: Familiarization with the data collected

Step 2: Generation of initial codes

Example:
Asset-fundamental decoupling
Investor-driven demand
Herding behavior
Spillover effect
Land finance fragility
Wealth stratification

Example:
School district housing premium
Household leverage increase
Shadow banking leakage
Real estate-finance nexus
Systemic risk propagation
Divorce-for-purchase strategy
Affordability gap

Example:
Purchase restriction (HPR)
LTV ratios tightening
Macroprudential tools
Property tax pilot
Supply-side structural reform
Housing price-to-income dislocation
"Lying flat" / Delayed consumption

Step 3: Search for themes within codes

PRELIMINARY THEME A:
Speculative Demand Dynamics & Market Psychology
A1. Speculative Behavior & Motives
A2. Market Mechanisms & Speculative Channels
A3. Structural Drivers of Speculation

PRELIMINARY THEME B:
Macroprudential Controls & Financial Stability
B1. Mortgage Restrictions & Borrower Controls
B2. Credit Allocation & Systemic Risk Control
B3. Macroprudential Policy Instruments

PRELIMINARY THEME C:
Contractional & Administrative Policy Control
C1. Administrative Purchase & Transaction Controls (HPR)
C2. Land & Supply-Side Regulatory Tools
C3. Monetary & Contractionary Policy Effects

PRELIMINARY THEME D:
Housing Affordability & Welfare Effects
D1. Affordability Indicators & Burdens
D2. Fiscal & Housing Provision Policies
D3. Structural Welfare & Distributional Effects

PRELIMINARY THEME E:
Market Outcomes & Policy Effectiveness Mechanisms
E1. Immediate & Short-Term Impacts
E2. Medium-Term Dynamics
E3. Long-Term & Systemic Outcomes

Step 4: Review themes

THEME 1: Curbing the Spiral of Speculation
1a. Administrative Demand Suppression (HPRs)
1b. Behavioral and Socioeconomic Spillovers
1c. Regional Variation in Policy Effectiveness

THEME 2: Reinforcing Financial Stability Through Macroprudential Instruments
2a. Borrower-Side Macroprudential Controls
2b. Bank-Side Capital Buffers (CCyB)
2c. Effectiveness in Controlling Systemic Risk

THEME 3: Contractionary Policies & Monetary Control
3a. Monetary Tightening Instruments
3b. Structural Limits of Monetary Policy
3c. Regional Heterogeneity Effectiveness in Monetary Transmission

THEME 4: Addressing Housing Affordability
4a. GE and Its Dual Effects
4b. Fiscal Distortions and Land-Finance Dependence
4c. Public Housing and Subsidy Policies
4d. Property Tax as an Affordability Tool

Step 5: Definition of themes

Refining; ensuring all data is accurately and thoroughly captured by themes and subthemes
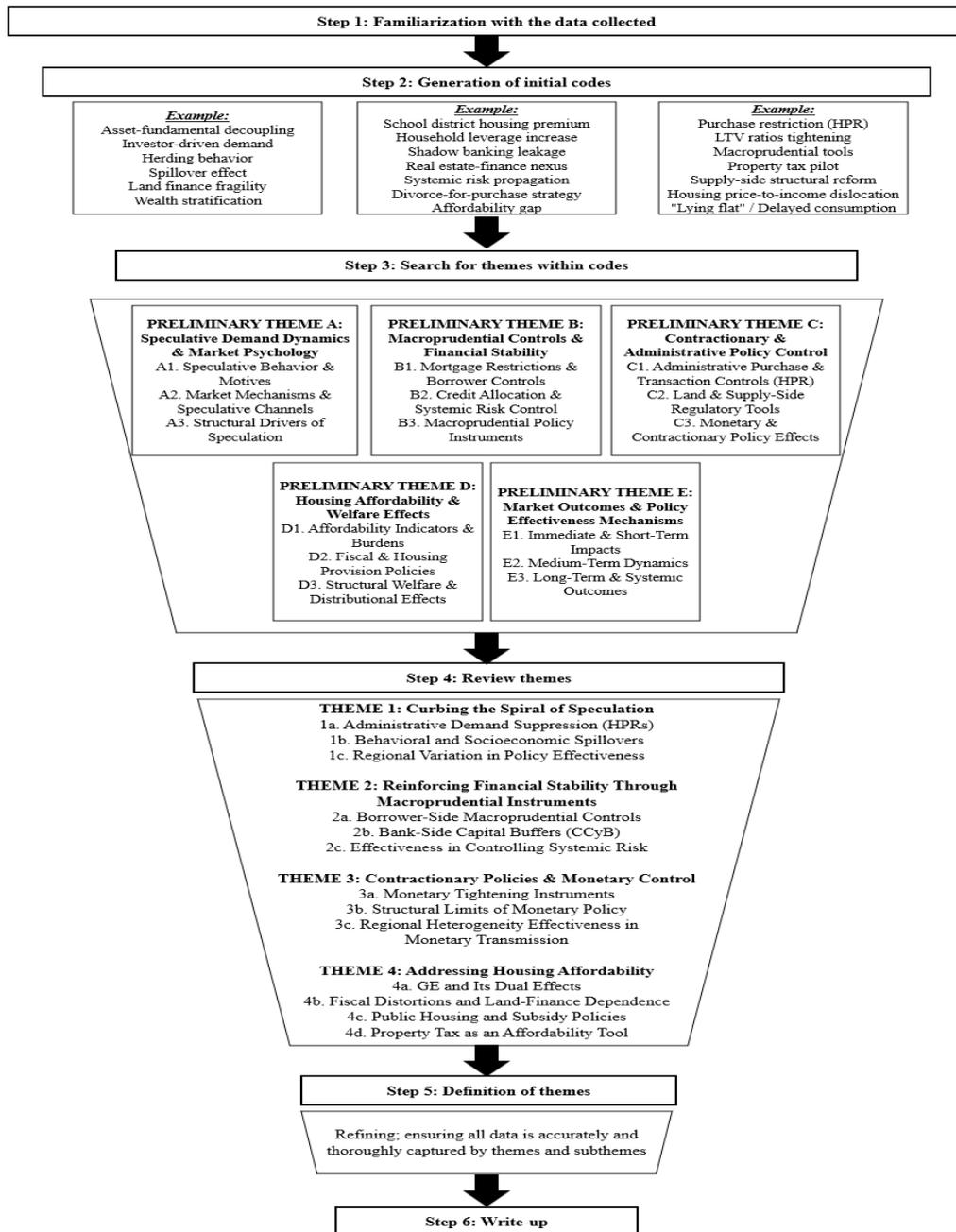
Step 6: Write-up

Figure 2. Team's Braun and Clarke's thematic analysis process.

In the second phase, qualitative materials were analyzed thematically following Braun and Clarke's six-step framework. After familiarization with the texts, the documents' main themes and results are organized into broader themes such as speculative demand, financial regulation, policy tightening, and affordability concerns. Effectiveness was assessed by linking each theme to measurable outcomes observed in the housing market. For example, policies categorized under speculative demand were evaluated against changes in transaction volumes and price-to-income ratios; financial regulation measures were assessed through shifts in mortgage lending growth and household leverage; and affordability-oriented policies were examined in relation to income-price dynamics and housing accessibility for first-time buyers. In addition, the timing of policy implementation was compared with inflection points in market trends to identify whether observed changes plausibly aligned with specific interventions. Scholarly evaluations and government reports were also incorporated to corroborate or challenge these findings, allowing the analysis to capture both intended objectives and unintended consequences.

From step 5, the emerging themes were refined and defined to ensure conceptual clarity and fitness to the research questions. For instance, codes related to administrative purchase limits, investor psychology, and speculative behaviour were combined under the theme *"Curbing the Spiral Speculation"*, which highlighted policy tools meant to stifle speculative demand. The *"Reinforcing Financial Stability through Macroprudential Instruments"* included borrower leverage, lender capital buffers, and systemic credit exposure content, emphasising the financial stability aspect of policy efficacy. In order to capture the cyclical and regionally varied effects of monetary tightening, extracts pertaining to interest-rate adjustments, money-supply control, and short-lived cooling effects were combined into *"Contractionary Policies and Monetary Control"*. In order to clarify the fiscal and welfare-oriented aspects of China's policy framework, codes pertaining to government expenditure, subsidisation, public rental housing, and tax-based instruments were incorporated into the theme *"Addressing Housing Affordability"*. The write-up step 6 synthesizes the thematic insights of how China's housing policies function across different market conditions and policy domains, presented in our result section.

4. Results

4.1. Phase 1: Analysis of the Similarities and Drivers

The analysis of real estate bubbles in the major cities in China and Vietnam shows that there is a striking similarity in their rise. However, there are some differences in their foundational timing:

Overall, the timing of the liberalization of the real estate market, as well as the nature of the initial boom and bubble periods, were different between the two countries, with Vietnam undergoing price fevers (1991-1993, 2001-2003) before the first major bubble in China. However, there is a definite wave of convergence, which reaches its peak in the very synchronized market instability that took place in the global financial crisis of 2007-2008. A timing divergence is observed during the COVID-19 period. While China's housing bubble peaked around the epidemic period, there was a market freeze in Vietnam's real estate market, followed by a significant price increase and upcoming predictions of the formation of bubble formation in the 2021-2023 period. By confirming these parallel phenomena, the study will highlight a core commonality: both markets, although at different stages of development, show a significant similarity regarding housing bubbles.

Besides the analogies of the real estate bubbles between the two countries, the key drivers have a very similar blueprint across macroeconomic, institutional, and behavioral levels.

Table 1. Comparison of Bubble Periods in China and Vietnam

Period	China Summary	Vietnam Summary	Coincidence/Delay
Early 1990s	N/A (Reform starting 1998)	Price Fever: 1991-1993.	Delay (China): Vietnam experienced its first price fever before China initiated its major housing reforms.
Early 2000s	Prices began accelerating in 2003.	Price Fever: 2001-2006.	Coincidence/Slight Delay (China): Both countries saw market acceleration, with Vietnam's second fever generally concurrent with China's market acceleration post-reform.
2007-2008 (Global Financial Crisis)	Bubble Stage 1: Began June 2007.	Price Fever/Bubble: 2007-2008.	Strong Coincidence: Both experienced a major bubble phase simultaneously surrounding the onset of the global financial crisis.
2009-2015 (Post-Global Financial Crisis)	Bubble Stage 2 and 3: 2009-2014, driven by stimulus and expectations.	Ho Chi Minh City Apartment Bubble: Continuous until Q4/2018. Industrial Zone Bubble: 2011-2021 period identified.	Coincidence: Both experienced continuous or sequential bubble periods throughout the recovery decade, largely fueled by loose monetary policy and investment inflows following the global financial crisis.
2015-2020	Bubble Stage 4: mid-2015 to late 2020	Major cities in Vietnam witnessed their highest PI points	Coincidence: Both markets were characterized by strong, sustained bubble conditions during this period.
2020-2023 (COVID-19 Era)	China's real estate bubble reached its peak around the period of COVID-19 epidemic.	The PI index bottomed out in all six studied Vietnamese localities in 2020, attributed to the pandemic market freeze. Prices witnessed shocking increases after the market freeze in 2021. Experts predicted a bubble might appear in the period 2021-2023	Difference (Short-term Timing): China's bubble activity appears to have been peaking or stabilizing just as the pandemic hit, while Vietnam experienced a short-term collapse/freeze in 2020, followed by aggressive price shock and predicted bubble formation/peak in the immediate post-pandemic period (2021-2023).

Firstly, both markets are essentially driven by strong macroeconomic factors. The fast growth of GDP, increased personal incomes, and excessive liquidity are the main propellants. This is clearly motivated by the accommodating financial conditions, such as expansionary monetary policies, high credit growth, and low interest rates, which make capital cheap and abundant. In both countries, these forces provide the fertile ground on which the inflation of asset prices thrives by supplying the financial fuel for the property market.

Secondly, institutional and policy frameworks in both countries have been working hard to direct this capital to the property sector. Although drivers comprise more explicit top-down policies in China, such as direct government stimulus and a development strategy focused on the urban core, Vietnam, as a nascent market, with less developed regulatory oversight and heavily dependent on credit policies, a similar effect is attained. In either scenario, the heavy influence of government on the economy - whether through direct intervention in the system or the design of its emerging financial

framework - and a relative absence of equally attractive alternative investment channels, collide to focus capital and speculative pressure in an entirely new way on real estate.

Thirdly, the psychological drivers of the two nations are united in the motif of strong speculative expectations. The driving force of behavior in both markets is a widespread belief that property prices are going to keep increasing forever, and the impact is the same: it generates a self-reinforcing feedback loop. This relationship is further cemented by the wealth effect observed in Vietnam and the Chinese culture of property, which provides a strong underlying demand on which speculative layers can be piled.

In conclusion, the parallel drivers - expansionary credit and speculative psychology - reveal a common susceptibility to real estate bubbles. This high similarity confirms the hypothesis that both markets, although in various development stages, are undergoing an important decoupling of asset prices and fundamentals because of the same underlying forces. Hence, the more sophisticated history of the bubble lifecycle in China offers a very applicable and warning model explaining and addressing the current issues in the Vietnamese real estate market.

4.2. Phase 2: Thematic Analysis of China's Real Estate Policies

Throughout 2010-2025, the Chinese Government has been deploying a plethora of policies to manage the bubbles of its domestic real estate industry. The mantra for the Chinese domestic real estate market is that "housing is for living, not for speculation".

Theme 1: Curbing the Spiral Speculation

Firstly, we analyze policies designed for reducing speculative activities. Our results indicate that HPRs have been among the most straightforward and powerful policy interventions implemented by the Chinese government to achieve the goal of controlling housing prices. Firstly introduced in Beijing, 2010 and then expanded nationwide, HPRs set limits on the number of residential housing bought based on residency status and tax payment history. The empirical results across research confirm HPRs' short-term effectiveness in curbing property prices. Our analysis also highlights the heterogeneity effects of HPRs across different Chinese regions. HPRs were the strictest and produced more statistically impactful numbers in 1-tier mega-cities such as Beijing with prevalent speculative behaviour and huge number of non-local residents, while in smaller cities, the effects of HPRs were much weaker. Furthermore, our analysis reveals the socioeconomic spillover effects of HPRs, as confirmed by Chang et al., [44] that HPRs incentivized couples to delay divorce or strategically marry in hope of gaining home-buying eligibility. Additionally, the deployment of HPRs contributes to consumer welfare loss in the short-term by altering the response of real estate suppliers and the structure on the demand-side. This aligns with the finding of Lu et al., [45], highlighting HPRs as key administrative tools to curb the housing bubbles in China despite their limitation in localized effectiveness.

Theme 2: Reinforcing Financial Stability through Macroprudential Instruments

Secondly, our analysis confirms that China's macroprudential instruments, namely the loan-to-value (LTV) ratio and the countercyclical capital buffer (CCyB), played significant roles in the domestic mortgage market. Empirical evidence from China during 2014-2016 proved that LTV ratio has a direct impact on choices related to property investment and homeownership [46]. Specifically, relaxing the cap on the maximum LTV ratios was found to increase mortgage demand and housing investment, leading to higher real estate prices; while stricter threshold for LTV ratios reduced systematic risk and speculative loan. This finding is consistent with the DSGE models by Forster and Sun [47], which proposed that a lower maximum LTV ratio effectively controls housing price inflation and reduces default risk. LTV is an asset-based mechanism, while CCyB

operates on the banking side, indirectly influencing the real estate market by building up capital buffers amid excessive credit expansion. Our analysis also indicates that macroprudential policies anchored to control credits rather than directly intervene housing prices movement were more successful in maintaining financial stability.

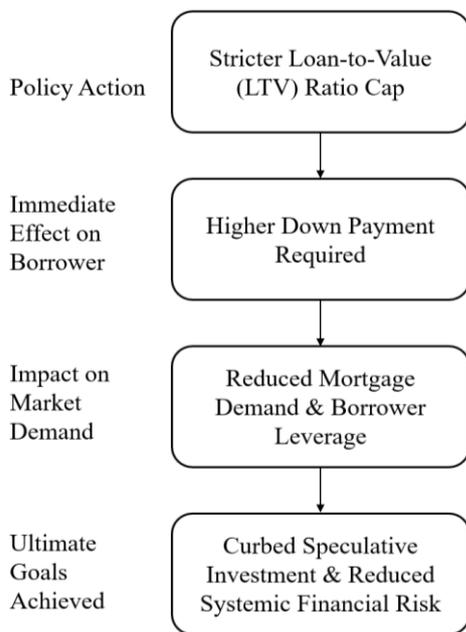Theme 3: Contractionary Policies and Monetary Control

Figure 3. LTV Mechanism.

Next, we investigate the effect of economic tightening on the Chinese property market, mainly through monetary policies. Our analysis confirms the relationship between China's money supply fluctuation and housing prices, as periods of expansionary policies having rising property prices and speculative activities, while contractionary policies discouraging housing consumption and investment but with regional patterns. These findings align with the research of Hu [21], emphasizing the short-term nature of monetary policies' impact on regulating property prices due to (1) home-buyers' renewed interest in the property market due to lower prices (2)

real estate suppliers drive down costs of production. Moreover, evidence suggests that the influence of monetary policy on China's real estate market is immediate but quickly disappears once supply and demand sides swiftly adjust to monetary shocks. These results are consistent with findings of Yang et al. [48], which proposes that China's monetary authority mostly deploys 2 instruments, namely interest rates and money supply, to control consumer's borrowing capacity and price fluctuations. Additionally, China's monetary policy has no means of controlling land transaction prices on the real estate developer side. Nevertheless, China's housing market highlights the significance of a steady money supply arrangement to fuel proper development and stabilize prices despite the limited long-term effectiveness of the policy.

Theme 4: Addressing Housing Affordability

Finally, our analysis identifies policies aimed at housing affordability in China. We focus on three common components of Chinese fiscal policies aimed at the real estate sector, including government expenditure policies, property tax and housing subsidy.

Out of 3 instruments, government expenditure (GE) has the clearest impact on the real estate market, as it not only acts as a powerful stimulus but also a destabilizer for the real estate market, depending on different composition and regions. This aligns with findings of Su et al. [49], suggesting that increasing GE for public rental property and affordable housing can help to moderate the rapid price escalation. However, GE spending on expansion of infrastructure such as transport can directly drive up property prices due to increased land values and rising residential demand. There is also regional heterogeneity in policy effectiveness. In provinces with higher reliance on land transfer to generate local government revenue, fiscal expansion is more likely to intensify real estate price volatility. Conversely, inland provinces where the primary use of GE is for infrastructure upgrading witness delayed housing price effects. This variation uncovers

the consistent problem embedded in China's decentralized fiscal system: higher GE fuels land investment, increasing land revenue, further incentivizing expansionary fiscal behavior and housing price growth. Despite its negative impact on real estate prices, the Chinese government's increased GE remains as a crucial policy initiative which boosts market confidence and protects people' well-being thanks to enhanced infrastructure development.

Regarding property tax, despite being utilized since the Zhou Dynasty, this instrument only had minimal economic significance until recent modern implications by the Chinese government. Among these modern attempts, the personal property tax programs deployed in Shanghai and Chongqing during 2011-2012

yielded distinct results due to the differences in scope and structure. While the Shanghai program focused on newly purchased non-primary homes by both residents and non-residents to limit speculative activities, the Chongqing program targeted high-end real estates and non-local people. Empirical results showed minimal reduction in Chongqing housing prices and zero impact on Shanghai property prices, and in both cities the personal property tax was not a major source of local tax revenue. Nevertheless, property tax still holds potential as a crucial fiscal and regulatory instrument for the housing industry, thanks to its profound influence on people' capital accumulation and welfare as proved by Li and Lin [50].
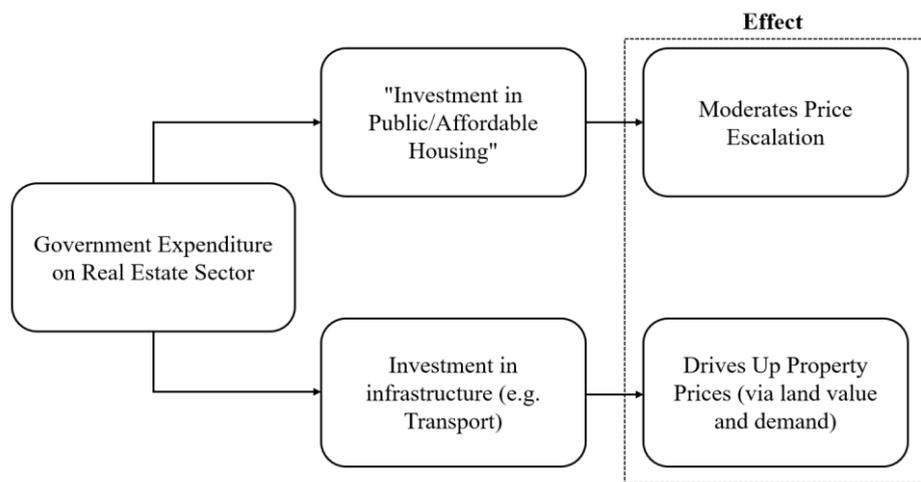

Figure 4. Government Expenditure Instrument Effects

4.3. Unified Evaluation Framework for China's Real Estate Policies (2010 - 2025)

Table 3. Unified Evaluation Framework for China's Real Estate Policies

Evaluation Criteria	HPRs	Macroprudential Tools	Monetary Policies	Fiscal Policies (GE, Property Tax and Housing Subsidies)
Policy Objective Clarity	Clear: Reduce speculative activities and curb rising prices	Clear: reduce systemic risk and control credit expansion	Moderately clear: stabilize macro conditions then indirectly control housing market	Clear and diverse: promote housing affordability, support supply, reshape incentives

Target Group Precision	Medium: Non-local and speculative homebuyers	High: targets leveraged borrowers and banks	Low: broadly affects all consumers and firms	Mixed: different fiscal tools target varying groups
Transmission Mechanism	Limiting purchase based on residency status and tax records	Constraint mechanism: LTV affects borrower leverage; CCyB affects bank credit supply	Interest rates and money supply influence borrowing cost and liquidity	- GE affects supply/demand via public housing and infrastructure - Taxes on non-primary homes and non-local buyers to curb speculative demand
Duration of Effectiveness	High short-term effectiveness	- High and immediate impact on leverage and mortgage demand - Moderate long-term effectiveness: control credits	- Immediate short-term impact but relatively short-lived due to market adjustment - Limited long-term effectiveness	GE has mixed effects; taxes and subsidies have mild short-term impact
Regional Heterogeneity	High: Impactful in 1-tier cities, weaker in smaller cities	Medium: Depends on regional credit conditions	High: monetary effects differ across cities with varying land markets	High: GE-led price changes differ by fiscal dependence and infrastructure structure
Socioeconomic Spillovers	Medium: Strategic marriage or divorces; short-term loss of consumer welfare due to distorted supply and demand	Medium: credit tightening affects household borrowing	Medium: may slow investment and local growth temporarily	Large: GE can fuel land-based financing cycles; property tax affects wealth distribution
Implementation Feasibility	Straightforward	High for LTV; medium for CCyB due to bank readiness	High: central bank control	Medium: - GE constrained by fiscal capacity - Property tax risks resistance from the public
Risk of Contradictory Outcomes	High: Might suppress demand excessively in downturns	Medium: May slow credit growth and mortgage demand	High: May overheat market when expansionary	High: GE infrastructure spending can raise prices, contradicting affordability goals

4. Recommendation for Vietnam

Empirical evidence from China's real estate cycle affirms that no single policy is sufficient to tame asset bubbles. Research by Deng et al., [16], Alpanda and Zubairy [51] demonstrate that combining monetary tightening with macroprudential tools outperforms isolated interventions, curbing speculative behavior with lower welfare trade-offs. However, applying such frameworks in Vietnam demands institutional adaptation: the country features weaker monetary transmission, fragmented land governance, and underdeveloped market

surveillance [52, 53]. Thus, Vietnam should prioritize a hybrid policy approach, sequencing short-term measures (e.g., LTV/DTI limits, liquidity supervision) with medium- to long-term reforms (property tax, housing registry, zoning decentralization). Rather than transplanting Chinese instruments wholesale, Vietnam must tailor them to its unique institutional constraints, such as land tenure systems [54], income distribution vulnerabilities [55], and sociopolitical sensitivities surrounding homeownership [56].

Among the four policy categories analyzed, macroprudential, monetary, fiscal, and administrative (HPR), macroprudential regulation stands out as the most immediately applicable and context-appropriate for Vietnam. This stems from three key realities: (i) The country's underdeveloped monetary transmission mechanism; (ii) The dominant share of real estate in domestic credit allocation; and (iii) The presence of localized hotspots such as Hanoi and Ho Chi Minh City where speculative activity is spatially concentrated. In contrast, monetary tightening is blunt and less predictable in its effects, while fiscal tools like property taxation face political economic hurdles and require longer-term institutional investments.

Firstly, short-term stabilization should rely on macroprudential instruments rather than overburdening monetary policy alone.

Lessons from China demonstrate that a coordinated portfolio, combining LTV caps, debt-service-to-income (DSTI) thresholds, and countercyclical capital buffers, can effectively constrain speculative demand while minimizing harm to productive credit flows. In the Vietnamese context, this approach is especially warranted. Real estate remains one of the most credit-intensive sectors, often absorbing disproportionate lending into high-risk or non-productive assets. Moreover, monetary tools alone may prove blunt: given Vietnam's weaker monetary policy transmission [52], rate hikes could suppress the real economy while leaving speculative borrowing unscathed. As such,

macroprudential tools tailored to local market conditions, such as differentiated LTV caps for second-home purchases, sectoral credit growth ceilings, or higher reserve requirements for real estate lending, offer more targeted and less distortionary alternatives. Spatial and borrower-specific calibration of these measures, particularly in overheating zones like Hanoi and Ho Chi Minh City, would enhance policy precision while alleviating pressure on the central bank's conventional tools.

Secondly, while administrative restrictions such as Home Purchase Restrictions may offer temporary relief in high-end or overheating segments, they must be applied cautiously.

To get rid of rebound effects of middle-term measures such as HPR in China's Tier-1 cities, Vietnam may adopt temporary, spatially-targeted HPRs, especially in high-end or luxury segments. However, these must be embedded in broader reforms to prevent circumvention, such as informal lending and nominee buyers. Policymakers should evaluate spillover risks to adjacent provinces and design contingency buffers to absorb post-policy shocks.

Thirdly, long-term housing stability requires reforming Vietnam's land-based fiscal model.

Currently, local governments rely heavily on land conversion fees, which incentivize speculative land banking and exacerbate price cycles [55] (Li et al., 2023). To realign fiscal incentives, Vietnam should pilot a progressive property tax, starting with high-value assets in urban districts of HCMC and Hanoi. However, Trung et al., [52] warns of major obstacles: poor cadastral data, administrative overlap, and strong cultural resistance. The tax should be framed not as a bubble-control device, but as a redistributive fiscal reform to fund social housing and urban infrastructure. Application of automated valuation models and earmarking tax revenue for visible community benefits can enhance public acceptance.

Fourthly, place-based policy calibration must replace Vietnam's current "one-size-fits-all" approach.

China's post-2015 pivot to place-based policies empowered municipalities to align zoning, land supply, and credit regulation with local dynamics [39](Wang et al., 2024). The abandonment of the "one-size-fits-all" approach in favor of localized interventions since 2015 allowed municipalities to better match supply-side tools with demand characteristics and regional market structures [57]. For Vietnam, where markets differ sharply across provinces, such as Ha Noi, Da Nang or Hai Phong, central authorities must shift from directive control to enabling oversight. Institutional enablers for this might include a unified, digital land and housing registry [54], an integrated cross-ministerial transaction database, and provincial early-warning systems tracking key indicators such as price-to-income ratios, credit-to-GDP gaps, and unsold inventory.

Fifth, policy design must consider social acceptability and institutional capacity.

For example, property tax proposals have faced public backlash in Vietnam due to perceived wealth redistribution and lack of trust in valuation mechanisms [52]. Similarly, strict credit caps could restrict access for first-time buyers or low-income households unless accompanied by targeted support schemes. To balance equity and stability, policies should include progressive targeting, transparent communication, and pilot programs before nationwide rollout. Aligning fiscal, monetary, and housing agencies under a unified framework will also improve coherence.

5. Conclusion

This study has shown that the success of China's framework depends on the adaptability, coordination, and sequencing of variety policies across time and geography. However, Vietnam's institutional architecture with weaker monetary transmission, fragmented land governance, and a less mature regulatory environment demands the translation of a policy mix that balances financial stability with equitable access to housing.

Nonetheless, our study has several limitations. First, while this paper synthesizes a wide array of empirical findings from China and Vietnam, it does not conduct primary econometric analysis due to data constraints. Second, while the temporal scope of 2010-2025 captures two key phases of China's housing bubble and policy experimentation, it omits earlier market developments, limiting the ability to trace longer-term movement. Third, the focus on seven Chinese megacities and Hanoi enhances the study's policy relevance yet constrains its generalizability to smaller or less-intervened urban contexts, where spillover effects of such policies may also be worth examining.

Future research could incorporate primary data collection, such as interviews or surveys, to enrich contextual nuance. Expanding the temporal scope to include periods before 2010 and a wider case selection, would strengthen comparative robustness and test the consistency of findings across different market conditions. For methodology, combining qualitative thematic analysis with quantitative techniques such as econometric modelling or panel data analysis would improve causal inference and enhance validity. Finally, greater attention to the differences in institutional settings between China and Vietnam, possibly through scenario analysis or pilot testing in Vietnamese cities, would crystallize the applicability of policy recommendations.

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