How new residential construction affect housing prices

A county-level analysis in Sweden

Kim Gustavsson

Independent project • 15 credits
Swedish University of Agricultural Sciences, SLU
Faculty of Natural Resources and Agricultural Sciences / Department of Economics
Political Science – Sustainable Development (BSc)
Degree project/SLU, Department of Economics, 1679 • ISSN 1401-4084
Uppsala 2025

How new residential construction affect housing prices. A county-level analysis in Sweden

Kim Gustavsson

Supervisor:	**Jonathan Stråle, Swedish University of Agricultural Sciences, Department of Economics**
Examiner:	Shon Ferguson, Swedish University of Agricultural Sciences, Department of Economics

Credits:	15 credits
Level:	First cycle, G2E
Course title:	Independent project in Economics, G2E
Course code:	EX0903
Programme/education:	Political Science – Sustainable Development (BSc)
Course coordinating dept:	Department of Urban and Rural Development
Place of publication:	Uppsala
Year of publication:	2025
Copyright:	All featured images are used with permission from the copyright owner
Title of series:	Degree project/SLU, Department of Economics
Part number:	1679
ISSN:	1401-4084

Keywords:	housing prices, residential construction, rental, owned, supply, demand

Swedish University of Agricultural Sciences
Faculty of Natural Resources and Agricultural Sciences
Department of Economics

Abstract

This thesis examines how new residential construction affects housing prices in Sweden, distinguishing between owner-occupied and rental housing. Using panel data from 21 counties (2005–2023) and fixed effects regression models, the study finds that increased construction of owner-occupied units is associated with higher prices, likely reflecting that new supply is added where demand is already strong. Conversely, more new rental housing correlates with lower prices, suggesting a substitution effect between tenure types. The results are robust when controlling for population, income, education, and unemployment. However, the study also highlights that the relationship between supply and price is complex and context-dependent, influenced by local policies, demand factors, and market segmentation. Limitations include the use of aggregated data and challenges in establishing causality. The findings suggest that supply-side policies alone may not be sufficient for improving affordability; a balanced approach that includes measures to stimulate rental housing and considers local market dynamics is needed.

Keywords: housing prices, residential construction, rental, owned, supply, demand

Table of contents

List of Tables

List of Figures

Abbreviations

SCB	Statistics Sweden
SEK	Swedish Krona
GRP	Gross Regional Product

1. Introduction

Housing affordability and supply shortages remain central concerns in the Swedish housing market. In metropolitan regions like Stockholm, Gothenburg, and Malmö, Swedish National Board of Housing, Building and Planning (2025) reports that nearly all municipalities face housing shortages. The Stockholm Housing Agency (2025) reports long queue times for rental contracts, averaging around nine years. According to Statistics Sweden (2024a), 26 percent of the rental sector is owned by municipal housing companies, which have traditionally been the most common way to obtain an apartment in Sweden. Such bottlenecks, together with rising prices, highlight how housing market dynamics directly impact household welfare and social equity.

The critical question for policymakers and researchers alike is how new residential construction, both rental and owner-occupied, affects housing prices. Is building more housing an effective way to improve affordability, or do new units primarily emerge in already high-priced areas, thereby reinforcing existing patterns? Understanding these causal links is complicated by the bidirectional nature of supply and demand: as DiPasquale (1999) and Tsai (2012) show, high prices can spur new construction just as new supply can, in theory, moderate prices. This thesis addresses the question: How does new residential construction affect housing prices? Specifically, the study conducts a county-level analysis in Sweden, distinguishing between the effects of new rental and owner-occupied housing on market price dynamics.

Existing literature on housing markets has often focused on micro-level or city-specific effects, analyzing how amenities or neighborhood changes influence local prices (Zahirovich-Herbert & Gibler, 2014; Simons et al., 1998). Other studies emphasize behavioral and rental demand-side factors (Brunnermeier & Julliard, 2008; Sinai and Souleles (2005). In the Swedish context, Engerstam et al. (2023) find significant cross-effects between rental and owner-occupied sectors, and Atterhög and Lind (2004) show that price levels in the ownership market shape rents. However, there is a lack of panel-data studies systematically estimating supply effects by tenure across the Swedish market. Prior work has also struggled to fully disentangle causality due to limited data and overlapping drivers of both prices and construction.

This study contributes in three main ways. First, it uses a county-level panel dataset spanning all of Sweden's counties from 2005 to 2023, allowing for a robust analysis of temporal and regional variation. Second, it estimates the distinct effects of new rental and owner-occupied construction on average housing prices,

providing empirical evidence for tenure-specific supply impacts in a highly regulated and municipally dominated housing system. Third, by including a comprehensive set of regional controls and fixed effects, the analysis tries to mitigate concerns about endogeneity and reverse causality, although these issues cannot be entirely ruled out.

The remainder of the paper is structured as follows. Section 2 reviews related literature. Section 3 outlines the theoretical framework. Section 4 details the data sources and methodology. Section 5 presents the main results. Section 6 discusses policy implications, limitations, and avenues for future research. Section 7 concludes.

2. Previous research

A considerable body of research has investigated the relationship between new housing supply, housing prices, and tenure choice. The findings, while sometimes contradictory, consistently demonstrate the importance of local context, market segmentation, policy environments, and behavioral responses in shaping housing outcomes. The following section reviews key studies that inform the present analysis, emphasizing both international and Swedish research relevant to understanding the effects of new construction on prices.

Zahirovich-Herbert and Gibler (2014) provide a nuanced perspective on how new residential construction interacts with existing housing prices, focusing on the city Baton Rouge, Louisiana in USA. They employ a hedonic pricing model to capture how various property and neighborhood attributes contribute to price formation. The study applies both standard hedonic regression and a quantile regression framework, enabling the analysis of effects across different segments of the price distribution. The main finding is that construction of new houses of similar size tends to create downward pressure on the prices of nearby existing homes, which is what standard supply and demand logic would predict. However, these effects are relatively small in magnitude and are only statistically significant when new, similarly sized housing is built within a narrow range, specifically 400 to 800 meters from existing properties. Notably, new housing regardless of size tends to sell at a premium compared to older homes. Furthermore, the development of larger-than-average new houses has a modest but positive impact on prices of existing homes in lower-priced neighborhoods, especially when also built in close proximity.

Supporting the idea that supply effects are complex and locally determined, Simons et al. (1998) explore the influence of both new residential construction and neighborhood disinvestment on nearby property prices. Neighborhood disinvestment refers to a decline in local investments and property upkeep, typically indicated by owners failing to pay property taxes. Such tax delinquency signals economic distress, lower neighborhood quality, and reduced attractiveness, potentially lowering surrounding property values. Their findings indicate that new construction generally produces positive externalities, raising the value of surrounding homes, but the strength and significance of these effects depend on the scale and location of the project. Large-scale projects tend to produce stronger positive effects. Simons et al. (1998) caution that variable measurement is crucial for interpreting results in housing price analyses. Their research thus affirms the conclusion of Zahirovich-Herbert and Gibler (2014),

highlighting the context-specific nature of supply effects and the need to pay careful attention to neighborhood characteristics and measurement choices.

A Swedish study by Engerstam et al. (2023), focus on the size of newly constructed apartments in the major metropolitan regions of Stockholm, Gothenburg, and Malmö over a twenty-year period. Rather than analyzing only the number of new homes, Engerstam et al. investigate how factors such as land prices, municipal building permit practices, population growth, income, rent levels, housing prices, and mortgage rates shape the average size of new apartments. Their findings show that higher land prices and stricter permit policies are associated with the construction of smaller apartments, contributing to overcrowding and making it harder for families to access suitable housing. Importantly, they also document interactions between the rental and owner-occupied sectors, with developments in one segment influencing the other. In such ways that longer waiting times for being presented with the opportunity for a rental apartment is between 8 and 12 years in Sweden's largest cities, but lower in small and medium-sized cities. Another Swedish study that look into how rent affect the housing market is Atterhög and Lind (2004), which analyze the rental housing market in thirty Swedish cities, focusing on the drivers of rent levels. Their research demonstrates that rent levels are primarily influenced by competition from the owner-occupied market rather than by the degree of competition among landlords or rental providers. In municipalities where it is expensive to buy a home, rents are higher as well, implying that the owner-occupied sector exerts strong pressure on the rental market. This link between tenure types shows the interdependence of segments within the housing market, emphasizing that policy interventions or market shifts in one segment can have spillover effects on the other. Internal competition among rental housing companies and capital expenditure by municipal landlords, in contrast, show little to no effect on rent levels.

Other research connects housing supply and tenure choice to broader labor market and behavioral phenomena. Coulson and Fisher (2002) explore the differences in labor market outcomes between homeowners and renters. They hypothesize that renters would be better positioned to exploit job opportunities due to greater mobility. However, empirical evidence from their study reveals that homeowners are less likely to be unemployed and typically have higher incomes. The authors suggest that selection effects are likely at play, with individuals who choose homeownership often having more stable jobs or higher incomes in the first place. Sinai and Souleles (2005) further enrich the understanding of tenure choice by investigating how risk in the rental market influences homeownership decisions. Their research shows that the probability of choosing homeownership

increases with the volatility of local rents. In markets where rent risk is high, households are willing to pay a premium for the security of fixed housing costs, which pushes up house prices relative to rents. This is especially true for households with longer expected tenure. In addition to these labor market and risk considerations, Brunnermeier and Julliard (2008) highlight the role of behavioral factors in housing market decision-making. They introduce the concept of money illusion, showing that many buyers and investors focus on the nominal monthly mortgage payment when deciding whether to rent or buy, neglecting to account for the effect of inflation on real mortgage costs over time. Their analysis finds that the housing price–rent ratio is more closely tied to nominal than real interest rates, suggesting that inflation-induced money illusion drives significant mispricing in the housing market. The study finds that a large portion of price–rent fluctuations can be explained by changes in inflation, not by rational changes in expected rents or risk. Behavioral biases and inflation expectations therefore play a significant role in shaping outcomes in the housing market and can help explain why prices sometimes diverge from levels predicted by fundamentals alone.

On the supply side, Glaeser and Gyourko (2018) examine how regulatory constraints in the United States affect the elasticity of housing supply, and consequently, house prices and affordability. They find that in areas where it is easier to build, house prices tend to stay close to the actual cost of building new homes, even if demand increases. In contrast, in cities with strict regulations that make it harder to build, house prices rise much higher than the cost of construction because new housing supply cannot keep up with demand. The authors describe the gap between market price and construction cost as a "regulatory tax," which results not from material or labor costs but from restrictive land use policies. These supply-side constraints drive up prices, increase price volatility, and contribute to wealth inequality by benefiting incumbent homeowners at the expense of new entrants, particularly younger and lower-income households. Adding to the complexity, Tsai (2012) analyzes the dynamic relationships between construction costs, rents, and housing prices in Taiwan. Contrary to the assumption that costs and rents drive house prices, Tsai finds that, particularly during periods when these indices diverge from equilibrium, when housing prices, construction costs, and rents do not move in line with their usual or long-term relationship, housing prices may rise or fall much faster than costs or rents. Tsai’s (2012) results emphasize that changes in housing prices can also influence construction costs and rents, not just the other way around. This demonstrates that housing markets often involve two-way relationships and feedback effects rather than simple one-way causality from

supply to price, underscoring the need to consider reverse causality when analyzing the effects of new housing supply on prices.

Although much more research has been conducted since the 1990s, many of the challenges identified by DiPasquale (1999) remain relevant. DiPasquale points out that while there is a large body of research on housing demand, much less is known about the supply side, mainly due to a lack of detailed micro-level data on developers, landlords, and their decision-making processes. Most empirical studies rely on aggregate national or regional data, which makes it difficult to fully understand how suppliers actually respond to price changes, costs, or policy interventions. This gap limits the understanding of how housing supply adjusts in practice. Some studies do show that new housing supply tends to be elastic with respect to price, meaning that higher house prices usually encourage more building. However, construction costs often turn out to be less important in practice than economic theory would predict. DiPasquale (1999) stresses that improved micro-level data on individual suppliers would help researchers better capture the underlying dynamics of housing supply, especially when considering different market segments or the impact of local policy changes. In the study, DiPasquale also observes that higher housing prices generally stimulate more new housing to be constructed, even if many aspects of the supply process remain insufficiently understood.

Much of the existing literature on housing markets has focused on micro-level or city-specific effects, such as neighborhood price dynamics (Zahirovich-Herbert & Gibler, 2014; Simons et al., 1998), and on demand-side and behavioral factors like labor market outcomes and individual decision-making (Coulson & Fisher, 2002; Brunnermeier & Julliard, 2008). In contrast, this thesis uses county-level data from Sweden to examine how new residential construction is related to housing prices across both rental and owner-occupied segments, thereby identifying market-wide patterns and potential tenure-substitution effects. Compared to earlier Swedish research, which has mainly addressed apartment size (Engerstam et al., 2023) or the influence of ownership prices on rents (Atterhög & Lind, 2004), this study directly analyzes the association between new construction and price developments across tenure forms and regions. A panel-data approach with fixed effects is used to account for regional and temporal variation. Methodologically, this thesis seeks to address concerns about endogeneity and reverse causality raised in previous research (Tsai, 2012; DiPasquale, 1999) by including a range of control variables and using a panel-data framework. While these approaches may partially account for factors influencing both supply and price, limitations remain, particularly given the use of aggregated data and the challenges in fully separating cause and effect. The analysis may also capture

some dynamic effects through the inclusion of building permits as a control variable. Overall, the results contribute new evidence on how new supply is associated with prices in both rental and owner-occupied markets at the regional level.

3. Theoretical framework

The relationship between housing supply, demand, and prices is based on fundamental principles of microeconomic theory. According to the law of supply and demand, the price of housing is determined by the interaction between the quantity of housing available and the willingness and ability of households to purchase or rent. When supply increases and demand remains constant, theory predicts that prices will fall. If demand rises more rapidly than supply, prices are expected to increase. All else equal, so therefore expect the prices to decrease when the housing supply is increased.

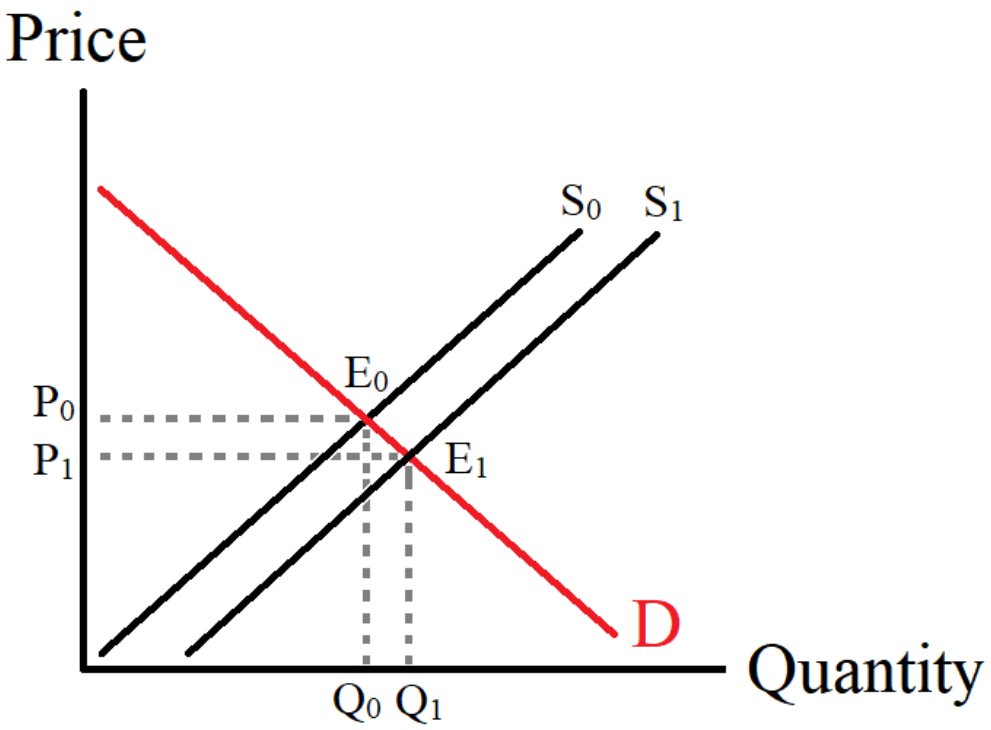

Figure 1. Supply and demand graph, when supply increases.

To clarify the theoretical expectation, Figure 1 illustrates the standard supply and demand model in the housing market. Initially, the market is in equilibrium at point E_0, where the original supply curve (S_0) intersects the demand curve (D), leading to an equilibrium price (P_0) and quantity (Q_0). When new construction increases supply, the supply curve shifts to the right (S_1), resulting in a new equilibrium (E_1). This change causes the market price to fall from P_0 to P_1 and the quantity of housing to increase from Q_0 to Q_1.

Since the focus of this study is to examine the effect of new construction in the housing market, supply is represented by variables such as new construction of rental housing, new construction of owned housing, and building permits. Demand is influenced by Gross Regional Product (GRP), population, population change, education, and unemployment. The housing market is often divided into different segments, such as owner-occupied and rental sectors, and each segment may react differently to changes in supply and demand.

This framework underpins the present study, which investigates how new residential construction affects prices in both the owner-occupied and rental housing markets in Sweden. Importantly, the analysis is conducted separately for apartments and for houses, in order to account for potential differences between these two types of housing.

4. Data & Methodology

4.1 Data

This study uses annual panel data for all 21 Swedish counties from 2005 to 2023, yielding 399 county-year observations (395 in some models due to missing values). All data are sourced from Statistics Sweden (SCB). All variables are aggregated at the county level. The analysis distinguishes between two market segments: apartments and houses, following SCB's classification. The dependent variable in each regression is the annual mean sale price for either apartments or houses, respectively. All price variables are adjusted for inflation using Sweden's Consumer Price Index (CPI), with 2023 as the base year, ensuring comparability over time (SCB, 2024b). This adjustment is applied to both dependent variables, apartment prices and house prices, as well as to regional GDP (GRP). The adjustment is performed by dividing the CPI value for 2023 by the CPI for the relevant year and then multiplying each price variable by this ratio. This procedure ensures that all prices are expressed in real terms and enables meaningful comparisons over time.

The main explanatory variables are the numbers of newly constructed housing units in each segment: new owned apartments, new rental apartments, new owned houses and new rental houses. SCB's dataset distinguishes between rental, tenant-owned, and owner-occupied dwellings. For analytical clarity and consistency, tenant-owned and owner-occupied units are aggregated within each market segment, and only fully constructed units are included in the analysis (SCB, 2025a).

To isolate the effect of new construction on prices, the models include several control variables that capture regional economic and demographic factors. Regional GDP (GRP), measured in real terms, controls for overall economic conditions and purchasing power in each county (SCB, 2024c). The education variable is defined as the share of the population with at least three years of post-secondary education and is aggregated for men and women, as other variables are not gender-specific and gender is not expected to influence the results (SCB, 2025b). Education is included as a control variable because higher educational attainment is associated with increased income levels and may drive greater demand for housing, thereby influencing local housing prices. Unemployment is measured as the percentage of the labor force registered as unemployed (excluding students and those outside the workforce), capturing local labor market dynamics (SCB, 2025c). Population is included to account for size and scale effects (SCB, 2025d), while population change reflects net demographic pressures

or decline (SCB, 2025d). Building permits, measured as the annual number of permits issued for apartments and houses, serve as a leading indicator of future supply and help address potential endogeneity between current construction and prices (SCB, 2025e). Each control variable is included to account for factors that may influence both supply and demand in the housing market, thereby reducing omitted variable bias. In the final model specifications, building permit and new construction variables from the other market segment are also included to examine potential cross-market effects.

4.2 Methodology

To estimate the relationship between new residential construction and housing prices, this study employs fixed effects panel regression models. Separate regressions are run for the apartment and house segments, following the classification described in the Data section. The panel structure allows for the inclusion of both county fixed effects α_i, which control for time-invariant unobserved heterogeneity across counties, and year fixed effects γ_t, which account for macroeconomic shocks and national trends affecting all counties in a given year.

The general form of the estimated models is as follows:

$$\text{Mean apartment price}_{it} = \beta_0 + \beta_1 \text{New\_owned\_apartments}_{it} + \beta_2 \text{New\_rental\_apartments}_{it} + \beta_3 \text{Real\_BRP}_{it} + \beta_4 \text{Education}_{it} + \beta_5 \text{Unemployed}_{it} + \beta_6 \text{Population}_{it} + \beta_7 \text{Population\_change}_{it} + \beta_8 \text{Apartments\_build\_permits}_{it} + \alpha_i + \gamma_t + \epsilon_{it}$$

$$\text{Mean house price}_{it} = \beta_0 + \beta_1 \text{New\_owned\_houses}_{it} + \beta_2 \text{New\_rental\_houses}_{it} + \beta_3 \text{Real\_BRP}_{it} + \beta_4 \text{Education}_{it} + \beta_5 \text{Unemployed}_{it} + \beta_6 \text{Population}_{it} + \beta_7 \text{Population\_change}_{it} + \beta_8 \text{Houses\_build\_permits}_{it} + \alpha_i + \gamma_t + \epsilon_{it}$$

Where *i* indexes denotes county and *t* indexes year and ϵ_{it} is the idiosyncratic error term. Robust standard errors are used in all specifications to account for potential heteroskedasticity. The estimated coefficients β represent the average association between each explanatory variable and housing prices, holding other factors constant and controlling for unobserved heterogeneity across counties and years. For certain model specifications, observations are limited by missing data (e.g., 395 instead of 399 observations in some models). All analyses were conducted using STATA.

5. Results

In this analysis, Model 6 is considered the main specification, as it incorporates all relevant control variables and including housing permits for both sides of the market. Earlier models lack important controls, while models 7 include variables that may introduce endogeneity or multicollinearity due to overlapping effects between the apartment and house markets. Thus, the results from Model 6 are interpreted as the primary findings regarding the relationship between new construction and housing prices in each market. It should be noted that the coefficients for the dependent variable, mean apartment or house price, are expressed in thousands of Swedish Krona (SEK). This means that the coefficients in the tables represent the change in apartment or house price, in thousands of SEK. When effects are stated in SEK in the text, the coefficients are already multiplied by 1,000 for ease of interpretation.

Table 2. For apartments. Dependent variable: Mean apartment price.

VARIABLES	(1) Model1	(2) Model2	(3) Model3	(4) Model4	(5) Model5	(6) Model6	(7) Model7
New_owned_ apartments	0.147*** (0.0244)	0.141*** (0.0241)	0.0730*** (0.0244)	0.0667*** (0.0239)	0.0502** (0.0250)	0.0411** (0.0208)	0.0308 (0.0218)
New_rental_ apartments	0.0313 (0.0262)	0.0256 (0.0250)	-0.0531*** (0.0195)	-0.0460** (0.0193)	-0.0378* (0.0211)	-0.0638*** (0.0188)	-0.0618*** (0.0190)
Real_GRP		1.101** (0.515)	0.927** (0.458)	1.277*** (0.466)	1.401*** (0.462)	1.326*** (0.414)	1.282*** (0.414)
Education			0.00435*** (0.000665)	0.00435*** (0.000646)	-0.00766** (0.00353)	-0.00457 (0.00319)	-0.00456 (0.00332)
Unemployed_ region				4.498 (7.124)	-5.708 (7.325)	-5.665 (6.944)	-6.241 (7.125)
Population					0.00535*** (0.00154)	0.00411*** (0.00138)	0.00414*** (0.00143)
Population_ change					0.00230 (0.00391)	-0.00121 (0.00321)	-0.000620 (0.00326)
Apartments_ build_permits						0.0203* (0.0107)	0.0218** (0.00956)
Houses_ build_permits						0.172*** (0.0507)	0.133** (0.0516)
New_owned_ houses							0.0904 (0.0585)
New_rental_ houses							-0.263 (0.400)
Constant	1,956*** (132.1)	1,241*** (366.1)	199.3 (337.1)	-66.50 (340.0)	-6,729*** (1,926)	-5,607*** (1,676)	-5,718*** (1,742)
Observations	399	399	399	395	395	395	395
R-squared	0.974	0.975	0.978	0.979	0.980	0.982	0.983
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The regression results for the apartment market are summarized in Table 1. Across models 1 to 6, the coefficient for new owned apartments is consistently positive and statistically significant, indicating a robust association between increased new construction of owned apartments and higher apartment prices. For example, in model 1 the estimated coefficient is 0.147 and significant at the 1% level. As further control variables are included, the magnitude of this effect declines, with the coefficient falling to 0.0411 in model 6, which remains

significant at the 5% level. This coefficient means that an increase of one newly constructed owned apartment is associated with a 41.1 SEK increase in the mean apartment price. However, in models 7, where variables representing new construction for houses are added, the coefficient for new owned apartments decreases further and is no longer statistically significant.

The pattern for new rental apartments is notably different. While the coefficient is initially positive in early models, in model 1 the coefficient is at 0.0313 and not significant, it turns negative from model 3 onward and become statistically significant in the later models. In model 6, for instance, the coefficient is -0.0638 and significant at the 1% level, indicating that an increase in new rental apartments is associated with a decrease in apartment prices when a comprehensive set of controls is included. An additional newly constructed rental apartment is associated with a 63.8 SEK decrease in mean apartment price. Even when taking into account new construction of houses both owned and rental, the coefficient remains negative and significant in models 7.

Among the control variables, real GRP is consistently positive and significant at the 1% level in most models, except in models 2 and 3 where significance is at the 5% level, with coefficients ranging from 1.101 to 1.401, in model 6 it is at 1.326. The education variable is positive and significant when first introduced, but the coefficient becomes negative from model 5 onward, and the statistical significance decreases; in model 6 and 7, there is no longer any significance. Unemployment is not statistically significant in any specification, however it has the highest and lowest coefficients and ranges from positive in model 4 when introduced at 4.498 and afterward goes into negative, at model 6 it is at -5.665. Population has a stable positive and significant effect at the 1% level. Population change starts off positive when introduced in model 5, but from model 6 onward it goes negative, it is not significant in any model. Building permits for apartments are positively associated with apartment prices when included, remaining significant at the 10% level in model 6, but gets to the 5% level in model 7. House building permits also show a positively association with apartment prices at a 1% level, this drops to 5% in model 7.

When new owned houses, new rental houses are introduced in models 7, new owned houses exhibit a positive coefficient, but it is not statistically significant. New rental houses have a negative coefficient but are not statistically significant either in model 7.

Table 2. For houses. Dependent variable: Mean apartment price.

VARIABLES	(1) Model1	(2) Model2	(3) Model3	(4) Model4	(5) Model5	(6) Model6	(7) Model7
New_owned_ houses	0.399*** (0.152)	0.391** (0.151)	0.368*** (0.0833)	0.360*** (0.0804)	0.315*** (0.0676)	0.217*** (0.0755)	0.213*** (0.0685)
New_rental_ houses	-0.352 (0.626)	-0.328 (0.627)	-1.853*** (0.429)	-1.699*** (0.424)	-1.829*** (0.461)	-1.964*** (0.469)	-1.722*** (0.485)
Real_GRP		0.801 (0.819)	-1.062** (0.430)	-0.473 (0.433)	-0.262 (0.413)	-0.304 (0.396)	-0.235 (0.396)
Education			0.00856*** (0.000723)	0.00850*** (0.000708)	-0.0119*** (0.00411)	-0.0116*** (0.00362)	-0.0101*** (0.00353)
Unemployed_ region				16.56* (8.435)	-0.331 (8.675)	-2.255 (8.178)	0.433 (8.203)
Population					0.00902*** (0.00180)	0.00853*** (0.00159)	0.00816*** (0.00154)
Population_ change					0.00260 (0.00422)	-0.000737 (0.00359)	-0.00270 (0.00341)
Houses_ build_permits						0.0746 (0.0737)	0.0923 (0.0701)
Apartments_ build_permits						0.0329** (0.0144)	0.0338** (0.0142)
New_owned_ apartments							0.0181 (0.0329)
New_rental_ apartments							-0.0535** (0.0247)
Constant	4,329*** (341.3)	3,789*** (655.7)	1,666*** (399.7)	1,177*** (398.5)	-9,935*** (2,222)	-9,144*** (1,949)	-8,909*** (1,882)
Observations	399	399	399	395	395	395	395
R-squared	0.969	0.969	0.985	0.987	0.988	0.989	0.989
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The regression results for the house market are presented in Table 2. Across models 1 to 7, the coefficient for new owned houses is consistently positive and statistically significant, indicating a strong association between increased new construction of owned houses and higher house prices. For example, in model 1 the coefficient is 0.399 and significant at the 1% level. As more control variables are added, the coefficient decreases but remains positive and significant, with a value of 0.217 in model 6, also significant at the 1% level. This coefficient means that an increase of one newly constructed owned house is associated with a 217

SEK increase in the mean house price. When variables related to apartments are introduced in model 7, the coefficient for new owned houses remains positive and statistically significant.

For new rental houses, the coefficient is negative with a coefficient of -0.352, but it doesn't get significant until model 3 and onward. As more controls are included, the coefficient becomes more negative. But remains negative and statistically significant at the 1% level from model 3 and in all subsequent models. In model 6, the coefficient is -1.964, which means that an additional newly constructed rental house is associated with a 196.4 SEK decrease in mean house price. These results indicate that increased construction of new rental houses is consistently associated with lower house prices across the specifications.

Among the control variables, real GRP displays a mixed pattern. It is only positive when introduced in model 2, but onwards goes negative, also only statistically significant in model 3 at the 5% level. The education variable is positive and significant in models 3 and 4, but afterwards the coefficient becomes negative, although it remains significant at the 1% level throughout. Unemployment, introduced in model 4, is initially positive and significant at the 10% level, with a coefficient of 16.56. However, it loses significance as further controls are added, turns negative in models 5 and 6, and becomes positive again in model 7, but without statistical significance. Population is positive and significant at the 1% level in all models where it is included. Population change is not statistically significant in any model, being positive only in models 5, then turning negative when more control variables are included. House building permits, introduced in model 6, are positively associated with house prices but do not reach statistical significance. Apartment building permits however show signs of both positive coefficient and significant at a 5% level.

When new owned apartments, new rental apartments, new owned apartments display a positive but non-significant coefficient. New rental apartments have a negative coefficient and show a significant at the 10% level in model 7.

6. Discussion and analysis

This thesis sets out to examine the interplay between housing supply and housing prices, with a focus on how new construction, both owner-occupied and rental units relates to housing market dynamics. Understanding this relationship is critical given ongoing housing affordability concerns and debates over supply-side interventions. Prior studies offer mixed insights, some have found that adding new housing has only modest or context-dependent effects on prices (Zahirovich-Herbert & Gibler, 2014; Simons et al., 1998), while others emphasize that housing markets are influenced by complex demand factors and expectations (Brunnermeier & Julliard, 2008). Moreover, the interaction between the owner-occupied and rental sectors is an important backdrop for this research. In markets like Sweden, institutional features like rent control can create spillovers between the two segments (Atterhög & Lind, 2004). Against this background, this analysis provides new evidence on whether increased housing supply leads to lower prices, or if high prices themselves induce more construction, as noted in the literature (DiPasquale, 1999; Tsai, 2012).

6.1 Interpretation of main results (Model 6)

The results show a nuanced relationship between new housing supply and housing prices. One of the key findings is that increases in owner-occupied housing supply were associated with higher contemporaneous housing prices. At first glance, this positive correlation might seem counter-intuitive, one would expect more supply to alleviate price pressure. However, a similar pattern has been observed in prior studies and can be explained by demand-driven construction. Zahirovich-Herbert and Gibler (2014) found that new construction often creates positive externalities and attracts buyers willing to pay premium prices, especially when the new units are of higher quality or larger size. Likewise, Simons et al. (1998) reported that building new homes in a neighborhood can increase the sale prices of nearby existing houses by improving the area's attractiveness. This study findings align with these micro-level observations: rather than immediately depressing prices, new development tends to occur in high-demand areas where prices are already rising, thereby reinforcing the price growth. In other words, developers build where they anticipate strong demand, and such demand (e.g., for modern owner-occupied units) can keep prices high. It is important to note that the empirical models include building permits as a control variable. By controlling for building permits, the analysis attempts to account for underlying factors that drive both construction activity and

price dynamics, such as anticipated local demand and planned future supply. While this approach cannot fully resolve issues of reverse causality or endogeneity, it helps to address the fact that new construction is often a response to observed or expected market conditions, rather than an entirely exogenous intervention. Thus, while some degree of simultaneity may remain, the models are designed to partially account for these market mechanisms.

This interpretation raises the possibility of reverse causality that is, high prices might be causing the increase in supply, rather than the other way around. This analysis cannot fully disentangle cause and effect with the available data, and this has been highlighted in the literature as a common challenge. Tsai (2012) emphasizes that housing supply and price influence each other dynamically, cautioning that a positive correlation could reflect prices spurring construction. Similarly, DiPasquale (1999) notes that higher house prices often incentivize more building, meaning studies may observe a positive association even if new construction would eventually act to moderate prices. In the context, the strong positive coefficients on new owner-occupied units likely capture builders responding to market signals of high demand. Thus, while initially set out to test whether more housing supply makes housing more affordable, the evidence suggests that the relationship is bidirectional. Rising prices can lead to more building, and those new units tend to be absorbed by the market without immediately lowering prices, consistent with a supply-constrained, high-demand environment

In contrast, the results for the rental housing supply offer a different perspective. That increases in new rental units (particularly in the single-family/house segment) are associated with lower housing prices (or smaller price increases) in the owner-occupied market. This suggests a tenure substitution effect, when more rental housing is available, some households may choose or remain in renting rather than competing to buy homes, thereby easing pressure on purchase prices. This finding is in line with theoretical expectations and previous research. Sinai and Souleles (2005) argue that owner-occupied housing serves as a hedge against rental cost risk, if rental options are scarce or rents are expected to rise sharply, people are more inclined to buy, bidding up house prices. Conversely, if rental housing is plentiful and rent growth is moderate, the urgency to purchase is reduced. The results empirically reflect this dynamic: new rental supply appears to crowd out some demand from the ownership market, contributing to slightly more affordable owner-occupied housing prices than would otherwise occur. Taken together, these insights help to explain the observed results: the negative association between new rental construction and prices in the owner-occupied sector likely reflects this substitution dynamic.

Engerstam et al. (2023) find that restrictive local policies and high land prices in Sweden's largest cities have led to the construction of mainly small apartments, contributing to overcrowding and long waiting times for rental housing. This shortage in the rental market pushes more households to seek owner-occupied homes, increasing demand and putting further pressure on prices. Atterhög and Lind (2004) show that when buying a home becomes more expensive, rents also rise, confirming a strong interdependence between the two segments. If new supply is concentrated in only one segment or consists mainly of small units, the overall effect on affordability will be limited.

It is also notable that the models include fundamental demand factors such as population, income (real regional product), and employment/unemployment indicators, which behaved largely as expected. For instance, population growth and rising incomes correlate with higher housing prices, reflecting basic demand pressure. Engerstam et al. (2023) emphasize that population growth and rising incomes are key factors shaping housing market outcomes in Sweden's largest metropolitan regions. Their findings show that these demand-side factors, together with high land prices and stricter permit policies, have contributed not only to increased pressure on the housing market, but also to a trend toward smaller new apartments and greater overcrowding. A more nuanced picture emerges when considering the role of unemployment. In the results, unemployment was not statistically significant, with a negative coefficient for apartments and a positive one for houses. This pattern may reflect differences in buyer profiles across segments. Coulson and Fisher (2002) show that homeowners are less likely to be unemployed and tend to have higher incomes, likely because those with stable jobs are more able to purchase homes, especially houses. Renters, on the other hand, are more exposed to unemployment risk but may also be more mobile. This could help explain why unemployment has a limited and segment-specific effect on housing prices in the models. The fact that the supply variables continue to show significant associations with housing prices, even when controlling for key demand fundamentals, suggests that there is a direct and independent relationship between new supply and price development in the Swedish housing market.

The findings in the study also resonate with Glaeser and Gyourko (2018), who argue that the ability of new supply to moderate housing prices depends critically on local regulatory constraints and the elasticity of supply. In markets characterized by restrictive land use policies and lengthy permitting processes, such as those in Sweden's largest cities as noted by Engerstam et al. (2023) new construction may be insufficient to offset strong demand, resulting in persistently high prices. This supply inelasticity means that even significant building efforts may only absorb pent-up demand rather than produce a downward adjustment in

prices. Another possible explanation for why prices do not always fall when new housing is built relates to buyer behavior. Brunnermeier and Julliard (2008) show that many buyers focus mainly on the monthly mortgage payment rather than the true long-term cost of the home, especially when interest rates are low. This means that as long as people feel they can afford the monthly payment, they are willing to pay high prices for homes, even if prices have risen a lot. As a result, demand remains strong and prices can stay high, even when more homes are added to the market. These types of behavioral factors are not directly measured in the analysis, but they may help explain why increased supply sometimes does not lead to lower prices as economic theory would predict.

6.2 Robustness and sensitivity analysis

To assess the robustness of the results, several model specifications were estimated. The main conclusions rely on Model 6, which includes a comprehensive set of control variables. In the earlier models (Models 1 to 5), where fewer controls are included, the magnitude of the key coefficients generally decreases and the estimates become more stable as more controls are added. The statistical significance of the main variables generally persists throughout, especially from Model 3 onwards. This pattern suggests that the findings are not driven by omitted variable bias from excluded controls.

Further insight is gained from Models 7, where variables from both the apartment and house markets are included in the regressions. In these models, new rental construction from the other market segment continues to show a negative association with prices, indicating that the supply of rental housing in one segment can put downward pressure on prices in the other. New owned housing from the opposite segment generally displays a positive association, although many of these coefficients are not statistically significant, suggesting a weaker or less robust effect. Notably, building permits from the other market segment are significantly and positively associated with prices, which suggests that construction activity in one part of the housing market may spill over to influence price development in the other segment. This could reflect regional growth dynamics or broader expectations of increased housing demand.

Overall, the analysis demonstrates a reasonable degree of robustness for the main findings, particularly for the negative effects of new rental supply on prices. However, some results when analyzing results depend on the inclusion of

variables from both the apartment and the house markets, as these segments can influence each other.

6.3 Policy implications and societal relevance

The findings of this research have several implications for housing policy and societal welfare. A key question is whether increasing housing supply improves affordability by slowing price growth. The results show that each additional newly built rental apartment is associated with a reduction in the average apartment price of about 63.8 SEK. In a large project, such as 500 new apartments, this would amount to a cumulative price reduction of approximately 31,900 SEK on mean apartment prices. However, this impact varies by local market conditions and should not be assumed to scale linearly, since diminishing marginal effects are likely as supply expands and markets adjust. In practical terms, even ambitious construction programs are likely to slow, but not reverse, price increases in the broader market. The price effects are real but not sufficient to fundamentally change affordability for most households in the short term, so supply-side measures should be viewed as one part of a broader strategy. Furthermore, in some cases, new owner-occupied supply is even associated with higher prices, implying that simply building more homes in high-demand areas may not always lower prices. This supports Glaeser and Gyourko's (2018) observation that the effectiveness of supply-side policies is often limited by regulatory hurdles, construction delays, and a focus on higher-priced segments. In many cities, including Sweden's urban areas, supply often lags demand and faces local constraints, so by the time new housing is completed, demand may have already increased further.

Policy efforts to stimulate construction, such as simplifying permitting processes, investing in infrastructure or providing incentives for developers, are important but both the results and previous research (Zahirovich-Herbert and Gibler, 2014; Simons et al., 1998) suggest that expectations should be realistic. These measures alone are unlikely to deliver rapid or dramatic improvements in affordability. Housing markets can often absorb new supply without experiencing significant price declines, particularly when new construction is a small share of the existing housing stock or primarily targets higher-priced segments (Zahirovich-Herbert and Gibler, 2014; Simons et al., 1998). Therefore, policymakers should view supply expansion as a necessary but not sufficient condition for improving affordability. Furthermore, as the experience from Sweden's Million Program has shown (Hall and Vidén, 2005; Lilja and Pemer, 2010), large-scale construction initiatives, if not carefully designed it can

inadvertently contribute to spatial and social segregation, underlining the importance of balanced and inclusive policy approaches.

Another major implication revolves around the rental housing market and its interaction with homeownership. The findings that new rental supply can help moderate owner-occupied housing prices highlight the value of a balanced approach to housing policy. In a country like Sweden, where the rental market is tightly regulated and often undersupplied, there is a risk that too much pressure is placed on the ownership market. Engerstam et al. (2023) provide evidence that decades of constrained rental supply due in part to rent control and low construction of rentals have led to higher home prices, as households who might otherwise rent are pushed to buy. This suggests that policies aimed at revitalizing the rental sector could have positive spillover effects like expanding rental housing through, for example, public-private partnerships to build affordable rentals or easing rent regulation to make rental investment more attractive could relieve some demand in the homebuyer market and improve overall affordability. Atterhög and Lind (2004) discuss how lack of competition in the rental sector can distort the whole housing system in ways that increasing the competition like having a healthy supply of rental options is socially beneficial. Sinai and Souleles (2005) further imply that if households feel secure about future renting, because adequate rental housing is available at reasonable cost, they are less likely to engage in frenetic bidding for homes as a hedge against future rent increases. Thus, housing policy should not focus solely on homeownership or supply of for-sale units in fact it should also ensure a robust rental market. A dual strategy could include incentives for constructing rental apartments like through subsidies or tax credits for developers who build rentals and reforms to rent control in ways to strike a balance between tenant protection and investor incentive to build new units. The goal would be to allow the rental market to act as a true alternative to owning, which the research suggests would have the effect of dampening excessive house price growth.

From a broader societal perspective, the findings touch on the classic debate about homeownership versus renting in promoting social welfare. High home prices have distributional consequences, they tend to benefit existing homeowners who see wealth gains, while harming aspiring first-time buyers and renters who face higher costs and barriers to entry. This has implications for inequality and intergenerational equity. If supply does not keep up with demand and prices keep surging, younger and less affluent households may be locked out of homeownership, missing out on the associated benefits. Those benefits can be significant, Coulson and Fisher (2002) found that homeowners in the US had better labor market outcomes such as lower unemployment and higher wages than

renters, which might reflect greater residential stability or access to credit that ownership can provide. Homeownership is often linked to positive social outcomes like community involvement, better maintenance of properties, and wealth accumulation. Thus, ensuring that homeownership is attainable through moderated prices actually has social values.

6.4 Strengths and limitations

This study has several strengths. First, the utilization of a panel dataset covering multiple regions (counties) and years, which allows to control for unobserved heterogeneity through fixed effects. By including year and county fixed effects in most of the models, this mitigates biases from time-invariant regional characteristics or common shocks. This approach strengthens the credibility of the findings, as it accounts for factors like geographic amenities or persistent policy differences across counties. Additionally, disaggregate housing supply by tenure (owner-occupied vs. rental) and type (apartments vs. houses), which provides a more detailed view of the individual markets.

Despite these strengths, there are important limitations to acknowledge. Causality remains a central concern. As discussed, the analysis cannot definitively pin down whether new supply causes price changes or if rising prices spur new supply. The possibility of reverse causation means one must be cautious in interpreting the coefficients as policy effects. Prior researchers have grappled with this issue, Tsai (2012) and Zahirovich-Herbert and Gibler (2014) both emphasize that supply and price often move together in housing markets, making it difficult to separate cause from effect. This is a limitation common in housing market research, and this study is no exception.

Another limitation is the aggregate level of analysis. The unit of observation is at the county level, which may mask localized effects. Housing markets are highly local in nature. Prices and supply in a specific neighborhood can be influenced by factors that are not visible in aggregate county-level data. Zahirovich-Herbert and Gibler (2014) show that new housing construction in close proximity can have a direct effect on nearby home prices, and DiPasquale (1999) points out that changes in local prices often stimulate new building activity. This highlights that other localized factors, such as proximity to transit lines or the presence of major employers, can also play a significant role. These types of micro-level influences are not captured by the county-level averages and could be critical for understanding housing dynamics at a finer scale. Simons et al. (1998) and Zahirovich-Herbert and Gibler (2014) illustrate how subtle differences in what is

built like size, quality or location within a region can lead to different impacts on prices. Our study does not differentiate new constructions by size or price level, which is a limitation, a luxury condo tower and an affordable housing project are both counted as new supply but likely have different effects on the market. Studying these phenomena would require more detailed data, possibly at the neighborhood or town level, rather than relying solely on aggregated regional statistics. By necessity, the analysis focuses on broader regional trends, which means important micro-level factors may be overlooked. As DiPasquale (1999) observes, much of the housing supply literature relies on aggregate data due to limited availability, even though construction decisions are made at a much more local level. Likewise, the study cannot capture the specific motivations or constraints influencing new housing projects, for example, whether supply is limited by regulation, financing, or other local conditions. Future research should ideally use more detailed data or case studies to better understand these local dynamics.

Additionally, the model does not directly account for buyer expectations or speculative behavior, which can also influence housing prices. For example, Brunnermeier and Julliard (2008) show that when buyers focus on nominal mortgage costs and ignore inflation, this so-called money illusion can lead to prices rising beyond what market fundamentals would justify. Even when supply increases, if buyers expect prices to keep rising or are encouraged by low interest rates, demand can remain strong and prices may stay high. This is a limitation of the analysis, as speculative expectations or shifts in sentiment at the individual level are difficult to measure but may affect market outcomes.

6.5 Suggestions for future research

Several avenues for future research emerge from the findings and limitations of this study. First, access to more detailed data at the municipal level would allow for a more detailed analysis of local housing market dynamics and could reveal effects that are obscured by county-level aggregation. With household-level data on income, preferences, and other relevant characteristics, it would be possible to more directly examine the mechanisms underlying the observed associations and to better control for potential confounding factors.

Second, future research could benefit from incorporating direct measures of access to credit for both households and construction firms, as financing conditions are likely to influence both the supply of new housing and the development of housing prices. Exploring the impact of credit markets and

lending regulations would deepen understanding of the financial drivers of housing market outcomes. DiPasquale (1999) highlights the need for research on the micro-foundations of housing supply, including how builders and developers make decisions. Future work could include surveys or interviews with developers to better understand their responses to price signals, constraints they face, and decisions about the mix of rental and owner-occupied housing. Such qualitative insights would complement quantitative analysis and provide a fuller causal understanding.

Third, the application of a valid instrumental variable (IV) would be highly beneficial for addressing endogeneity and potential reverse causality in this context. In this study, an attempt was made to use building permits as an IV, but this was ultimately not suitable, as building permits are plausibly related to housing prices. The identification of a more exogenous instrument remains an important challenge for future research.

7. Conclusion

This thesis set out to investigate the relationship between new housing supply and housing prices in Sweden, with a particular focus on how different types of new construction, rental versus owner-occupied units, affect price developments. The findings show that the effect of new supply on housing prices is not uniform but instead depends strongly on both tenure form and local market conditions. The analysis indicates that an increase in new rental housing tends to dampen price growth, while more owner-occupied supply is associated with rising prices. This suggests that rental and owner-occupied segments compete with each other, and when more rental housing is available, it can serve as a substitute for homeownership, easing demand pressures in the ownership market. While previous research shows that housing built in close proximity can have direct effects on local prices, this study cannot disentangle the full extent of such micro-level interactions, as the analysis is conducted at a more aggregate level. Nevertheless, the observed substitution effect between tenure types is consistent with the notion that changes in one segment can influence outcomes in the other. Finally, it should be noted that housing prices are shaped by a range of factors beyond those measured in this study, including income levels, local policies, and other unobserved market dynamics. The complexity of the housing market means that different types of policy measures are needed, and that future research should use more detailed data to better understand what is happening.

References

Atterhö g, M., & Lind, H. (2004). How does increased competition on the housing market affect rents? An empirical study concerning Sweden. *Housing studies*, *19*(1), 107-123.

Brunnermeier, M. K., & Julliard, C. (2008). Money illusion and housing frenzies. *The Review of Financial Studies*, *21*(1), 135-180.

Coulson, N. E., & Fisher, L. M. (2002). Tenure choice and labour market outcomes. *Housing Studies*, *17*(1), 35-49.

DiPasquale, D. (1999). Why don't we know more about housing supply?. *The Journal of Real Estate Finance and Economics*, *18*(1), 9-23.

Engerstam, S., Warsame, A., & Wilhelmsson, M. (2023). Exploring the effects of municipal land and building policies on apartment size in new residential construction in Sweden. *Journal of Risk and Financial Management*, *16*(4), 220.

Glaeser, E., & Gyourko, J. (2018). The economic implications of housing supply. *Journal of economic perspectives*, *32*(1), 3-30.

Hall, T., & Vidén, S. (2005). The Million Homes Programme: a review of the great Swedish planning project. *Planning perspectives*, *20*(3), 301-328.

Lilja, E., & Pemer, M. (2010). *Boendesegregation - orsaker och mekanismer?: En genomgång av aktuell forskning*. Retrieved from https://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-83228

Simons, R., Quercia, R., & Levin, I. (1998). The Value Impact of New Residential Construction and Neighborhood Disinvestment on Residential Sales Price. *Journal of Real Estate Research*, *15*(2), 147–161. https://doi.org/10.1080/10835547.1998.12090921

Sinai, T., & Souleles, N. S. (2005). Owner-occupied housing as a hedge against rent risk. *The Quarterly Journal of Economics*, *120*(2), 763-789.

Statistics Sweden (SCB). (2025e). *Building permits for new construction, number of dwellings in residential buildings and buildings for seasonal and secondary use by region and type of building. Quarterly 1996K1 - 2025K1.*

https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BO__BO0101__BO0101G/LghHustypKv/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2025a). *Completed dwellings in newly constructed buildings by region, type of building and tenure. Year 1991 – 2024.* https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BO__BO0101__BO0101A/LghReHtypUfAr/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2024b). *Consumer Price Index (CPI) Year, Weights and Index, Year 2005 - 2023.* https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__PR__PR0101__PR0101A/KPIArViktInd/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2024b). *Gross Regional Domestic Product (GRDP), number of employed and wages and salaries (ESA2010) by region (NUTS1-3). Year 2000 – 2023.* https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__NR__NR0105__NR0105A/NR0105ENS2010T01A/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2024a). *Just over 5.2 million dwellings in Sweden*. https://www.scb.se/en/finding-statistics/statistics-by-subject-area/housing-construction-and-building/housing-and-accommodation/dwelling-stock/pong/statistical-news/dwelling-stock-2023-12-31/ [Received: 05-20-2025].

Statistics Sweden (SCB). (2025c). *Population aged 15-74 (LFS) by region, labour status and sex.* year 2005 – 2024. https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__AM__AM0401__AM0401N/NAKUBefolkningLAr/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2025b). *Population 16-74 years of age by region, highest level of education, age and sex. Year 1985 – 2024.* https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__UF__UF0506__UF0506B/Utbildning/ [Received: 04-20-2025].

Statistics Sweden (SCB). (2025d). *Population statistics per quarter/half year/year by region and sex. Year 2000 – 2024.* https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101G/BefforandrKvRLK/ [Received: 04-20-2025].

Swedish National Board of Housing, Building and Planning. (2025). *A continued housing shortage in the metropolitan regions* [Fortsatt underskott på bostadsmarknaden i storstadsregionerna.]

https://www.boverket.se/sv/samhallsplanering/bostadsmarknad/bostadsmarknaden/bostadsmarknadsenkaten/region-kommun/storstadsregionerna/ [Received: 06-06-2025].

The Stockholm Housing Agency. (2025). *How long does it take?* https://bostad.stockholm.se/language/english/how-long-does-it-take/ [Received: 06-06-2025].

Tsai, I. C. (2012). Housing supply, demand and price: construction cost, rental price and house price indices. *Asian Economic Journal*, *26*(4), 381-396.

Zahirovich-Herbert, V., & Gibler, K. M. (2014). The effect of new residential construction on housing prices. *Journal of Housing Economics*, *26*, 1-18.

Publicering och arkivering

Godkända självständiga arbeten (examensarbeten) vid SLU kan publiceras elektroniskt. Som student äger du upphovsrätten till ditt arbete och behöver i sådana fall godkänna publiceringen. I samband med att du godkänner publicering kommer SLU även att behandla dina personuppgifter (namn) för att göra arbetet sökbart på internet. Du kan närsomhelst återkalla ditt godkännande genom att kontakta biblioteket.

Även om du väljer att inte publicera arbetet eller återkallar ditt godkännande så kommer det arkiveras digitalt enligt arkivlagstiftningen.

Du hittar länkar till SLU:s publiceringsavtal och SLU:s behandling av personuppgifter och dina rättigheter på den här sidan:

- https://libanswers.slu.se/sv/faq/228316

☒ JA, jag, Kim Gustavsson har läst och godkänner avtalet för publicering samt den personuppgiftsbehandling som sker i samband med detta

☐ NEJ, jag/vi ger inte min/vår tillåtelse till att publicera fulltexten av föreliggande arbete. Arbetet laddas dock upp för arkivering och metadata och sammanfattning blir synliga och sökbara.