



UCLA ECONOMIC LETTER

REAL ESTATE AND THE MACROECONOMY

A partnership between the UCLA Ziman Center for Real Estate and the UCLA Anderson Forecast sponsored by the Ziman Center's UCLA Rosalinde and Arthur Gilbert Program in Real Estate, Finance and Urban Economics

OCTOBER 2021

Monthly condensed analyses of crucial real estate and economic issues offered by UCLA Anderson Forecast and UCLA Ziman Center for Real Estate. In this October 2021 Letter, UCLA Anderson Assistant Professor of Finance Gregor Schubert analyzes how shifting trends in house prices extend from city to city.

The original research paper, “House Price Contagion and U.S. City Migration Networks,” is available [here](#).

Housing Markets in Motion

How Trends in Home Prices Move from City to City

By [Gregor Schubert](#)

Why do national trends in house prices spread more to some cities than to others? This paper proposes an explanation of house price “contagion” based on migration spillovers between U.S. cities: As a result of local economic shocks and housing supply constraints in some cities, increases in house prices drive migration to other cities. These migration flows are more likely to affect cities with stronger pre-existing migration links to the origin cities, and increase house prices at these destinations.

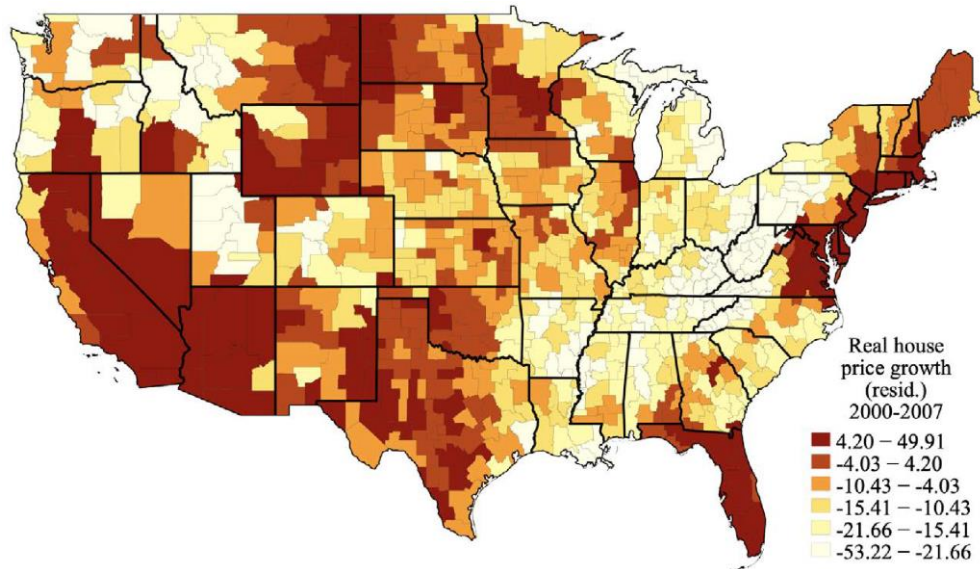
“Through migration spillovers, large coastal “superstar” cities doing well can cause booms in locations such as Las Vegas and inland California.”

An important motivating fact is that house price growth during national boom and bust cycles varies greatly across cities in the U.S.: Real house price growth over the 2000-2007 period ranged from 0% at the 10th percentile of city

house prices to 91% at the 90th percentile and was far larger than the national average of 40%. Even after accounting for the direct effect of land constraints and their interaction with national macroeconomic trends, these geographic differences are substantial as Panel (a) of Figure 1 shows. Spatial gaps in cities' co-movement with national house price trends also persist over longer time periods. The map in Panel (b) of Figure 1 shows the effect of a 1% increase in house prices as part of the national cycle on local house prices (the house price "beta") over the 1990-2017 period for different commuting zones, which ranges from 0.4 at the 10th percentile to 1.9 at the 90th.

Figure 1: House Price Growth and Beta

(a) Residualized Real House Price Growth 2000-2007



(b) House Price Growth Beta 1990-2017

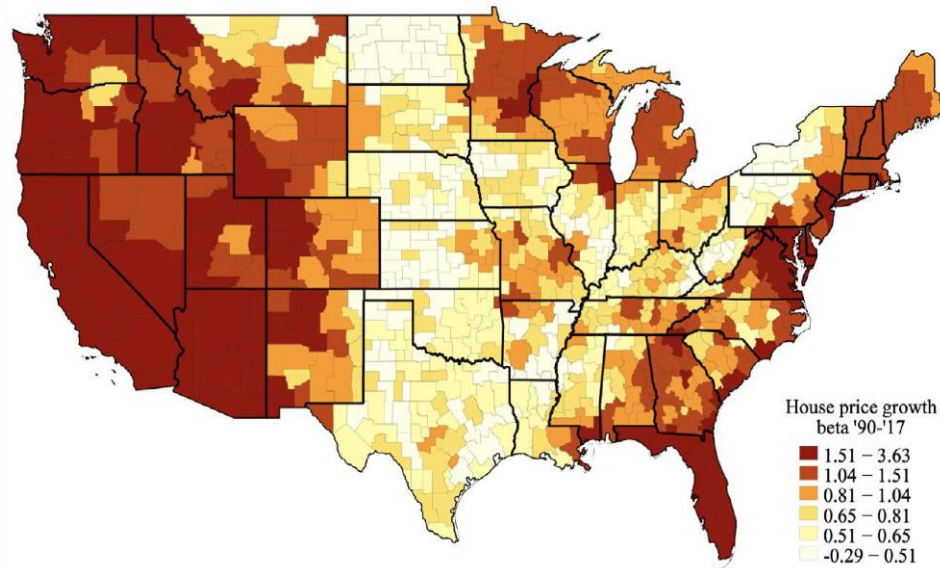


Figure 1: House price growth and beta. Panel (a) shows a map of commuting zone average (cumulative) real house price growth over 2000-2007, residualized with regard to the effect of common annual time trends, local land constraints, and the interaction between them in a population-weighted regression. Panel (b) shows house price growth "betas" for the annual house price growth effect in each period, computed as the slope coefficient in a regression of each CZ's annual house price growth series 1990-2017 from Federal Housing Finance Authority data on the series of leave-one-out average national growth in each year.

This paper studies the importance of migration as an important causal channel for spillovers between cities that can explain part of the differences in exposure to national trends. In particular, I make two contributions: First, I show new empirical evidence that house price growth in one city can have a causal spillover effect on other cities through migration flows, which partly explains house price growth in cities that don't experience direct economic shocks. Second, I construct and estimate a model of household location choices that allows me to quantify the role that mobility plays in mitigating extreme house price growth outcomes across cities.

I estimate the causal effect of house price changes in a city on other connected cities by looking at shocks to local house price changes in one area that are driven by exogenous national trends and then considering how they affect house prices in other connected areas that are not affected by the same shocks. I find that an increase in all other cities' house prices by 10% in the long run causes a 6.3% house price move in a city exposed to the shock through migration links. This mechanism can help us understand historical cross-sectional differences in housing markets: For example, I show that migration flows associated with the effect of interest-rate declines on house prices in other cities during the run-up to the housing boom of the 2000s can explain 32% of the actual cross-sectional variation in house price growth.

Additionally, the paper estimates a quantitative model of how U.S. cities interact through migration flows to assess how changes in migration costs or housing supply constraints affect the overall distribution of house price growth across cities. I show that higher migration costs substantially increase the dispersion in house price growth: In the absence of worker mobility, the spread in house price growth across cities in response to wage shocks would be 65-70% larger. Moreover, declines in worker mobility increase the impact of housing policy on the distribution of house price growth across cities.

POLICY IMPLICATIONS

Declining mobility and volatile house price dynamics. There has been a substantial decline in observed U.S. inter-city mobility over the last three decades. For policy makers, the results in this paper imply that if there are policies that can lower migration costs (e.g. reductions in occupational licensing or portable welfare and unemployment benefits) then these could be used to reduce regional differences in house price outcomes and the likelihood of extreme house price events.

Increasing importance of reducing supply constraints. The impact of tighter housing supply constraints widening the gap in house price growth across cities can be mitigated by increasing worker mobility through lower migration costs. Conversely, an exogenous decline in mobility makes a reduction in supply constraints more effective at reducing the likelihood of extreme house price outcomes. To the degree that mobility has already declined in recent years, policy changes that reduce housing supply constraints would be more effective today at reducing the dispersion in house price outcomes than they were in the past.

Moreover, if housing supply constraints continue to tighten in the most constrained places – as has been the case over the last two decades – then enabling greater worker mobility through lower migration costs could mitigate the effect of these tighter constraints on the dispersion in house price growth across U.S. cities.

Macroeconomic policy and financial regulation. Growth in local house prices is often explicitly monitored as part of financial institution stability assessments in the U.S. The interconnectedness between cities and its effect on geographic variation in house price growth needs to be taken into account to interpret these local dynamics correctly: For example, local house price dynamics may in part be attributed to economic shocks originating in other cities that share migration links, which should be considered when assessing whether local house price dynamics are driven by demand fundamentals, e.g. in the form of migration flows, or speculation.

Affordable housing policy and urban planning. Due to resistance by existing homeowners against new construction, a political backlash against the displacement of renters, or other obstacles, new construction is often delayed by the permitting process. As a result of such lags in construction, house prices become more volatile, and housing supply is unable to quickly accommodate increases in demand.

This volatility could be reduced and local conflicts mitigated by better predicting increases in local population. For example, migration from Boston, MA, to Portland, ME, tends to follow high house price growth in Boston. Thus, if the

housing authority of Portland was able to track housing markets in Boston and other cities with migration links, it could predict housing demand as a result of migration spillovers and work to accelerate construction permits to get ahead of an anticipated congestion in its housing market.

More generally, my results suggest that there are externalities from local housing policies on other cities that share migration links: This highlights the need for supra-metropolitan coordination, and regulatory collaboration that takes into account the desirability of regional or national housing outcomes, not just local effects.

Real Estate Investors. The ability of migration links to predict house price correlations between different local housing markets is also relevant for investors exposed to residential markets. Even when diversifying by investing in housing in different U.S. regions, portfolios can end up with high risk as a result of those regions' covariance with one another and with the national cycle. The mechanism proposed in this paper suggests that migration links can anticipate co-movement in housing markets, and can thereby be used to reduce real estate portfolio risk. Moreover, the model counterfactuals show how the cross-section of housing market risk can be expected to change as other fundamentals such as mobility and supply constraints evolve, and how migration links can be used to predict regional house price dynamics in response to economic shocks.

