

Chapter 14

Financial Stability and Housing Markets in Large Cities: What Role for Macroprudential Policy?



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1 Facts About House Price Trends in Large Cities

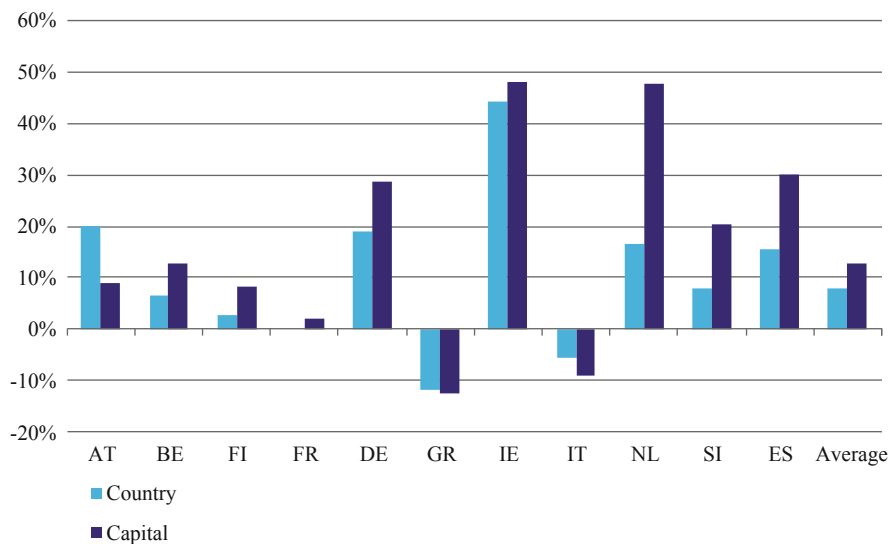
In recent years, residential real estate (RRE) prices in capital and large cities increased sharply and at a faster pace than country wide averages across many euro area countries (ECB 2017a). While the median growth of RRE prices across the euro area as whole was around 8% between 2013Q4 and 2017Q2, the median growth of RRE prices in capital cities was around 13% over the same period.¹ The divergence of housing price dynamics between country averages and capital cities is particularly evident in the Netherlands (+16.6% at the country level vs +47.5% in Amsterdam between 2013Q4 and 2017Q2), in Germany (+19% vs +29%) and Spain (+15% vs +30%) (Fig. 14.1).

As a result of strong increases, price misalignments might be emerging in euro area large cities. While measurement uncertainty and data gaps limit the possibility of assessing price misalignments, especially at the local level, a number of findings emerge across the euro area. According to the ECB (2017b), RRE prices appeared close or slightly above fundamental values in 2017 in the euro area as whole.

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¹The calculation refers to the change in nominal RRE price indexes between 2013Q4 and 2017Q2 for those countries where aggregate country indexes and indexes for capital cities were both available. These countries include FI, FR, DE, GR, IE, IT, NL, SI and ES. Between 2010Q4 and 2017Q4, the median change for country aggregate indexes was around 0, while for cities was around 20%. This suggests that the recovery in capital cities led the residential real estate cycle in the euro area.

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Source: Haver Analytics, ECB Statistical Data Warehouse (2018a, b) and National Statistical Offices

Fig. 14.1 Residential real estate prices across countries and capital cities (% increase between 2013Q4 and 2017Q2)

However, valuation measures were largely heterogeneous across countries, reflecting different cyclical positions. Significant heterogeneity in RRE price valuations existed across regions within countries, with the largest overvaluations seemingly concentrated in large cities (Bundesbank 2018). However, beyond anecdotal evidence, the hard evidence on the latter point is limited by data constraints. One available study on the German market (Kajuth et al. 2016)² compares actual house prices to their fundamental values for a number of different regional sub-aggregates using data at the regional level. It finds that apartment prices significantly exceed fundamental values, especially in large cities. A similar pattern holds for single-family houses, for which house price misalignments are generally smaller than for apartments and often not significant. Generally, the large variation in valuation metrics across German cities is evident when looking at the price to rent ratio (Fig. 14.2). Finally, also evidence from the Netherlands points to potential emerging price misalignments in large cities where price developments outpaced personal income growth (Hekwolter of Hekhuis et al. 2017).

Strong price dynamics in large cities appear to be part of a global trend, also beyond the euro area. According to the IMF (2018), RRE price growth in large cities outpaced country averages in several countries around the world since 2013. This is

²The study uses a regional panel dataset comprising price data for single-family houses and apartments in all 402 districts in Germany and district-specific explanatory variables. It is one of the few studies looking at fragmentation in housing markets by estimating price misalignments across districts in one country.

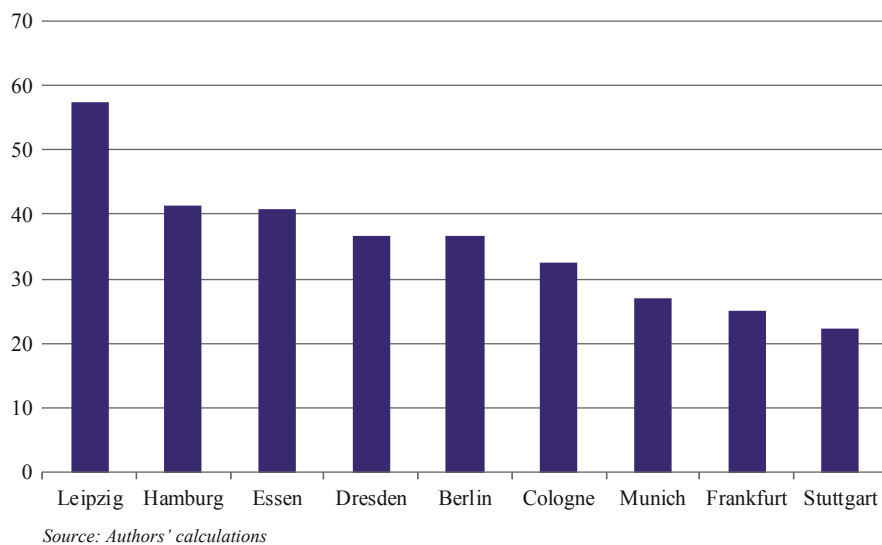


Fig. 14.2 Price to rent ratios across German cities in 2017

the case in China, New Zealand, Australia, Turkey, Japan, Hungary, Great Britain, Sweden, Denmark, and a number of other countries. Valuation metrics for prices in some large cities across the world have led analysts to talk about the potential risks of bubbles (UBS 2017).

Residential real estate prices in large cities appear to increasingly co-move across the globe. Recent analysis on house price synchronisation across countries (IMF 2018) reveals a number of interesting findings. First, the correlation among house price dynamics in large cities worldwide is currently at least as strong as the correlation among price dynamics at the country level. This is a surprising finding, as price dynamics in cities should be affected by idiosyncratic shocks, thus resulting in lower average correlations worldwide than for country aggregates. Second, according to a cluster analysis, price developments in some city pairs appear to be interlinked, while developments at the aggregate level in the countries where these cities are located are not. For example, Tokyo appears to be largely interconnected to the rest of the world, while overall price developments in Japan are not.

The remainder of this article reviews the possible determinants of housing markets in large cities and discusses the role of macroprudential policy.

2 Drivers of House Price Trends in Large Cities

Housing markets are segmented, which explains, at least partially, heterogeneous trends within countries between large cities and other areas. Regulation, market liquidity, mobility of the labour force (or population) and factors affecting the supply of housing all have a regional dimension. Moreover, as regions are also

heterogeneous in terms of economic structure and financial development, regional housing markets may respond differently to common economic shocks or may be subject to different shocks. As a consequence, it is natural that price dynamics might diverge across regions.

A number of cyclical and structural factors might explain relatively strong increases in house prices in large cities versus national aggregates. Structural factors range from demographics to technological progress, while cyclical factors might relate to investors' preferences in the aftermath of the global financial crisis.

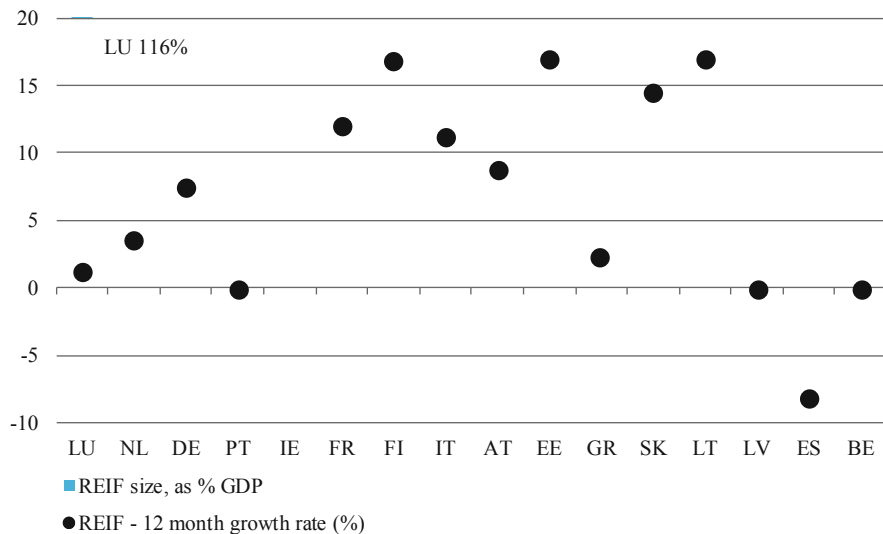
Increasing trends in house prices are a result of structural features of housing markets and of the interplay between them and other economic sectors. Generally, over long horizons, increases in nominal and real housing prices are the result of relatively limited technological progress in the housing sector compared to other sectors of the economy and of the limited supply of land which enters in the "production function" of new homes (Iacoviello and Neri 2010). In the case of large cities, other factors also play a role. For example, in recent decades, the share of population living in urban areas has increased across advanced and emerging market economies.³

Miles and Sefton (2017) show that persistent and strong house price increases in large cities are not new from an historical perspective. Under some circumstances, the "overperformance" of prices in large cities is also the result of household preferences and technological progress. Specifically, when the rate of improvement in transport technology slows relative to population growth and total productivity, house prices in large cities can be expected to grow persistently. Moreover, when there is little substitutability between new land and high density housing, house prices might persistently outpace income growth as well.

Observed trends in house prices in large cities might also be the outcome of cyclical forces. According to Iacoviello and Neri (2010), housing demand, housing supply and monetary factors explain a substantial part of the variation of house prices at business cycle frequencies. Regarding housing supply, in the aftermath of the global financial crisis bottlenecks in the capacity of the construction sector might have emerged due to the severity of the housing recession in some countries.⁴ As the capacity of the sector gradually improves, bottlenecks and price pressures emerging

³Notably, preferences for urbanisation differ across age cohorts. Young generations are particularly likely to move to large cities due to the quality of institutions, jobs, culture and recreation opportunities (Hekwolter of Hekhuis et al. 2017).

⁴Hekwolter of Hekhuis et al. (2017) report that, in the Netherlands, municipalities and construction companies reduced their planning and construction capacity after the crisis. Therefore, the response to accelerating demand is currently sluggish. More generally, also the IMF (2016) points to supply shortages as a potential driver of price developments in urban areas. Hilber and Vermeulen (2016) use micro data to show that regulatory constraints have a substantive positive impact on the house price-earnings elasticity in the UK. In addition, the effect of constraints due to scarcity of developable land is largely confined to highly urbanised areas. Saiz (2010) shows that supply elasticities depend on physical and regulatory constraints. The latter in turn are endogenous to prices and demographic growth. Therefore, geography is a key factor in the contemporaneous urban development of the United States.



Source: ECB, Statistical Data Warehouse (2018a, b)

Fig. 14.3 Growth of REITs and REIFs in the euro area (2017Q4)

from supply constraints might fade away. Housing demand and monetary factors could also be important cyclical drivers of observed trends in house prices in large cities. First, housing demand might be stronger in large cities as job creation and income growth might be more dynamic there. Second, credit constraints might be less binding in large cities due to the underlying quality and liquidity of collateral (and concentration of financial services). Third, the demand for housing as an investment good and demand from foreign investors might also explain the strong price dynamics in large cities. In the context of the low yield environment, capital gains and the relatively high yield of buy-to-let housing vs. alternative investment opportunities might have attracted demand from a diversified pool of investors.⁵ These include (domestic and foreign) high net worth individuals, domestic institutional investors (insurance companies and pension funds) and foreign investors. In most cases, foreign investment is channelled via real estate investment funds or trusts (REIFs/REITs) which have growth substantially in recent years (Fig. 14.3).

More generally, lending support to the increasing role of the foreign investors, the IMF (2018) finds that housing is increasingly behaving as a financial asset. Global financial conditions may explain synchronicity in RRE prices across countries after controlling for domestic fundamentals and other fixed and time varying factors. Most importantly, the IMF finds that the contribution of global financial conditions is stronger for large cities.

⁵In some large international cities where tourism is growing fast, many private homes are mainly rented out for short periods via websites such as Airbnb. As a result the housing stock available for rent is reduced (Hekwolter of Hekhuis et al. 2017).

3 Implications for Financial Stability and the Role of Macroprudential Policy

From a financial stability perspective, housing markets in large cities can be important for several reasons. First, in some cases the housing stock, housing wealth and general real estate activity is largely concentrated in big cities. This makes large cities “systemic” from a financial stability perspective because they constitute the largest fraction of the residential real estate market in the country. As a result, developments in residential real estate markets in large cities might have broader macro-financial implications at the country level. Second, banks might be heavily exposed to large cities via large mortgage lending portfolios and via lending to broader real estate activities. Third, in some countries a large fraction of borrowers lives in large cities. As a consequence, rising prices in large cities might affect housing affordability with the potential of weakening the balance sheet of a large fraction of the population.⁶ There could be also broader implications of rising house prices on wealth inequality. Fourth, price developments in large cities might have ripple effects to neighbouring areas in good and bad times. As such, housing markets in large cities might be leading the national cycle. The spillovers of price dynamics to primary locations or large cities to other areas might be affected by country specific factors, including mobility of the labour force and transport infrastructure. Analysis on this type of spillovers within one country is fairly limited.

While developments in large cities might be important from a financial stability perspective, a number of considerations suggest that the role that macroprudential policy can play to address local vulnerabilities might be limited. First, macroprudential policy should not lose sight of the key goal of preserving overall financial stability. In some situations, the attention to developments that are of local nature might result into overly ambitious attempts of micro-managing the economy that are only loosely linked to the overall financial stability goal. Second, a number of factors constrain the role of macroprudential policy in this field. These include data limitations, impact of other policies and limited effectiveness of some macroprudential policy instruments to address local vulnerabilities.

Currently a number of data gaps limit the role of macroprudential policy in addressing housing vulnerabilities in large cities. Macroprudential policy should be supported by granular data in order to identify key vulnerabilities and decide on policy responses. In the context of housing markets in large cities, data should focus on specific geographical areas and ideally cover prices, lending conditions, borrowers’ balance sheets and bank exposures. In this context, bank data on local lending and exposures, and information on the balance sheets of borrowers are not easily available across countries (ESRB 2016). In some cases, while this information is available, it cannot be easily accessed by macroprudential authorities. In the euro area, a number of initiatives are in place which could lead to better data in the future.

⁶Although the relevance of this point for financial stability depends on structural features of housing markets, including the share of home ownership in one country.

These include the “analytical credit datasets” or AnaCredit which will cover data on individual bank loans in the euro area.

Depending on the specific sources and nature of the observed imbalances, other policies outside the macroprudential domain might be better positioned to address local vulnerabilities in housing markets. For example, zoning restrictions for residential real estate development limit the supply of new housing. Lifting zoning restrictions might ease upside pressures on prices, especially when the latter emerge from structural factors as, for example, demographic trends towards urbanisation. Rental regulations strongly affect the demand for buy-to-let housing and have a large impact on prices. Developing transport infrastructure might also ease price pressures in specific areas by addressing housing demand stemming from urbanisation and from the preference of living close to “job centres”. Similarly, decentralisation of job places may act in the same direction. Fiscal measures (e.g. property taxes, transaction taxes, mortgage tax deductibility, etc.) also affect housing demand and transaction volumes, thereby impacting pricing and activity in the market. As a result, fiscal measures can be flexibly used to address price pressures emerging from cyclical factors (e.g. speculative demand), including demand from foreign investors in search for yield. As some of the abovementioned measures can often be applied to specific geographical areas and are often under the control of local authorities, they appear to be the first line of defence in order to address vulnerabilities in local housing markets.

Against this background, a first line of action for macroprudential policy could entail a communication strategy to raise public awareness on risks in housing markets in order to limit potential demand emerging from speculative motives. Moreover, it could raise awareness about the role that other policy areas can play in addressing local housing market vulnerabilities when they become a threat.

In case of need, macroprudential policy can make a selective use of policy instruments while being mindful of their limitations. Policy options in this context include borrower based measures, capital measures, and limits to exposures.

In general terms, borrower based measures⁷ can be used to limit new mortgage lending and ensure the good credit quality of it, thereby slowing credit growth and keeping household balance sheets sound in the medium term. In the context of addressing housing market vulnerabilities in large cities, borrower based measures might be effective in a “text book” situation when RRE price pressures emerge as a result of “leveraged demand” from local households. This is the case when housing price dynamics occur in the presence of strong mortgage lending (potentially rising household indebtedness) and deteriorating bank lending standards. Ideally, a policy measure could take the form of a combination of borrower based instruments targeting all lending flows that are collateralised with real estate assets in a specific geographical area. In this context, it is worth noting that “flat” borrower based measures imposed at the country level imply different binding restrictions across

⁷Borrower based measures include loan to value (LTV) limits, loan/debt to income (L/DTI) limits, debt service to income (DSTI) limits, maturity limits, amortisation requirements etc.

regions. Preliminary evidence (Hekwolter of Hekhuis et al. 2017; Faykiss et al. 2017) seem to indicate that borrower based measures are more binding outside urban areas where income levels are lower. This evidence lends support to the potential introduction of regional policies in the form of diversified borrower based limits between large cities and other areas.

In some situations, however, there might be limitations to borrower based measures in addressing local vulnerabilities. When housing price developments are the result of demand from foreign investors or large investors for buy-to-let purposes, borrower based measures might be ineffective and even counterproductive for the following reasons.⁸ First, key investors might be able to rely on funding sources (e.g. bond markets or foreign banks, which are not subject to domestic regulation) that are out of the scope of domestic borrower based measures. Second, borrower based measures might affect only some market players (e.g. local buy-to-let business that rely on bank finance), thereby un-levelling the playing field (e.g. in the buy-to-let business). Third, borrower based measures might unduly compromise housing affordability for households when the driver of price growth is not leveraged demand from households. In this situation, borrower based measures would not be effective in taming the cycle.⁹ Furthermore, cycles induced by foreign investors might have higher amplitudes and shorter duration than “text book” housing cycles driven by household leverage. This limits the effectiveness of borrower based measures which act on flows and require time to affect the credit quality of the stock of lending. Against this backdrop, macroprudential authorities could ensure key market players remain sound and do not amplify the cycle. For example, authorities could ensure that real estate investment funds are well managed and able to contain risks emerging from liquidity mismatches in line with the recent recommendations from the Financial Stability Board (FSB 2017).

Finally, macroprudential policy could focus on strengthening banks with capital measures or dis-incentivizing banks’ exposure concentration to some geographical areas. When house price developments reflect underlying demand forces that cannot be easily addressed with borrower based instruments, containing the build-up of vulnerabilities might be out of reach for macroprudential authorities. In this context, the latter could primarily focus on ensuring that banks remain resilient when credit risks materialise. This can be done by capital measures or by imposing limits to the exposures of certain types of borrowers and/or to certain geographical areas. If the

⁸Generally, also demand from commercial real estate players might affect housing prices, when commercial real estate and residential real estate demand compete for the same space.

⁹Borrower based measures might be able to ensure that household credit risk remains contained, although this policy objective does not appear a crucial policy goal in the above scenario of rising prices, due to demand outside the household sector. This is because if adverse developments materialise (e.g. house price declines), households might not necessarily be the primary source of credit risk for banks. The credit quality of other borrowers as, for example, real estate developers, might be a more important source of risks. Further, increasing household resilience by imposing borrower based measures comes at the cost of lower housing affordability and potentially increasing inequality (Grossmann et al. 2018).

source of concern is credit risk of certain categories of borrowers that are exposed to developments in specific geographical areas, higher risk weights on the exposures to these borrowers could be applied. Alternatively, exposure limits could be applied.

4 Conclusions

Macroprudential authorities need to monitor developments of real estate markets in large cities given their systemic importance in terms of activity, bank exposures and share of population, and the possibly large spillover effects of house price dynamics from large cities to the rest of the country. Containing excesses in the housing cycle in large cities might be difficult for macroprudential authorities when global factors are the key drivers. In some circumstances, borrower based measures might have limited effect. This is the case, for example, when housing price dynamics are driven by investors that have access to non-bank sources of funding. In these cases, authorities can still contribute to addressing housing vulnerabilities in large cities by raising public awareness about risks and the role that other policy areas can play. Moreover, macroprudential authorities should ensure that no disruptions in the financial system occur when credit risks materialise. This can be done by strengthening banks with capital measures, by improving lending standards or by limiting banks' exposure concentration to some geographical areas.

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