

The IMF's Global House Price Index—an average of real house prices across 57 countries continued to climb up in the third quarter of 2016 (Figure 1). This is the sixteenth consecutive quarter of positive year-on-year growth in the index.



Figure 1 and 2

However, house prices are not rising everywhere around the world. As noted in our <u>Q4 2016</u> <u>Quarterly Update</u>, Figure 2 shows that developments in the countries that make up the index fall into three clusters: gloom, bust and boom, and boom.¹

In addition, house prices are also not climbing up everywhere within countries. Figure 3 shows that in many countries, house prices are subdued at the national level compared to the city level.



¹ See Wall Street Journal story: <u>Why It Isn't Yet Time to Worry as Global House Prices Rise</u>

Recent IMF assessments provide a more nuanced view of the within country house price developments (Table 1²).

On house price divergence within countries:

- On <u>Australia</u>, IMF assessment points out that house price gains have moderated. However, the extent of cooling has varied considerably across cities. The strongest price increases continue to be recorded in Sydney and Melbourne, where underlying demand for housing remains strong. With house prices still rising ahead of income, standard valuation metrics suggest somewhat higher house price overvaluation relative to the previous IMF assessment.
- On <u>Austria</u>, IMF assessment notes that the cumulative increase in the house price index over 2007–2015 was nearly 40 percent. To a large extent, this increase was driven by price dynamics in Vienna. The OeNB residential price index indicator, which assesses whether prices move in line with fundamental factors, points to an overvaluation of property prices of about 22 percent for Vienna, while prices in the rest of the country appear broadly in line with fundamentals.
- On <u>Turkey</u>, IMF assessment points out that the housing market exhibits significant variations across cities. Regional variations have been further accentuated by the presence of more than 2.7 million Syrian refugees since March 2011. Cities near the Syrian border, which have absorbed larger masses of Syrian refugees have seen significant rises in local housing prices since 2011, though they have moderated in recent years.

 $^{^{2}}$ The table provides the dates when these assessments were published. It is important to note that these may not completely reflect the current situation due to adjustments in housing demand, supply, and policies since publication.



Besides the residential property market, the commercial property market is another important element of the real estate market. Sentiment indicators for commercial real estate developed by RICS show a positive relationship with residential prices (Figures 4 and 5).

Figure 4 plots average house price growth for 2013-16 vs. RIC's occupier sentiment index (OSI) average for 2013-16. The OSI indicator is the unweighted average of tenant demand (+), rent expectations (+), and available supply (-). Figure 5 plots average house price growth for 2013-16 vs. RIC's investment sentiment index (ISI) average for 2013-16. The ISI indicator is the unweighted average of investment enquiries (+), capital value expectations (+), and available supply (-).

Recent IMF assessments have also looked into developments in the commercial property market.

On the commercial property market:

- On <u>Australia</u>, latest IMF assessment says that signs of commercial real estate overvaluation have emerged. Commercial real estate prices in Australia have increased rapidly since mid-2014. Rents have not followed at the same pace, and the price-to-rent ratio is now above average. Whether the latter is a good metric of fair value is difficult to assess. Risks to financial stability from any potential CRE overvaluation appear manageable. The share of commercial real estate lending in commercial banks' total assets decreased in the past few years and has now stabilized at around 5 percent.
- On <u>Ireland</u>, IMF assessment says that pressures in the commercial real estate market remained strong, and prices increased further, particularly in the office segment. As demand is mostly funded by foreign investors and domestic equity, the exposure of the domestic banking system to the commercial real estate market continued to decline. Despite these pressures, analysis at the time suggested that current prices are broadly in line with fundamentals in both residential and commercial segments.

These charts and the underlying data are available from the IMF's Global Housing Watch page: http://www.imf.org/housing

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Country	Assessment	
(date of		
assessment)		
Australia (<u>February 2017</u>)	"By some metrics, housing market conditions have cooled and credit growth to households has slowed, but risks related to house price and debt levels have not yet decreased."	
Austria (<u>February 2017</u>)	"House price growth has been strong in recent years by international comparisons. The cumulative increase in the house price index over 2007–2015 was nearly 40 percent. To a large extent, this increase was driven by price dynamics in Vienna. The OeNB residential price index indicator, which assesses whether prices move in line with fundamental factors, points to an overvaluation of property prices of about 22 percent for Vienna, while prices in the rest of the country appear broadly in line with fundamentals."	
Chile (<u>December 2016</u>)	"Housing prices have grown at a relatively fast pace in Chile, prior to an impending VAT increase in 2016. Residential property sales have fallen sharply since early 2016. Housing prices are cooling down rapidly. Household debt has increased, driven by mortgage loans. Still, the price-to-income ratio has stabilized recently () and, the debt-to- income ratio in Chile remains low relative to advanced economies".	
Indonesia (February 2017)	"Property prices have been subdued, in tandem with slowing economic growth".	
Ireland (February 2017)	"Property market conditions tightened further, mainly due to a limited supply response. Current conditions have supported robust demand recovery, but housing completions have picked up only moderately, continuing to fall well short of the underlying requirement in the economy".	
Macao SAR (February 2017)	"Risks in the housing market appear broadly contained. Housing in Macao SAR experienced a remarkable boom: between end 2008 and mid-2014, prices rose by over 500 percent (nearly 400 percent in real terms). To some degree, this asset appreciation can be explained by fundamentals including rising real wages, financial deepening, and population growth amid a relatively fixed supply of land."	

Table 1. Latest IMF Assessments of Housing Market Developments

Malta (<u>February 2017</u>)	"The data do not appear to point to a house price misalignment at present, yet a combination of demand and supply factors are likely to exert sustained pressures on house prices going forward. Moreover, elevated households' indebtedness, combined with high and increasing bank exposure to property market, pose vulnerabilities to a potential negative house price shock."	
Mexico (November 2016)	"House prices have increased broadly in line with income growth on average over the last five years, and there is no evidence of an overvaluation".	
Morocco (February 2017)	"Mortgage lending remains moderate (about 5 percent y-o-y) and there is no indication of a housing price bubble".	
Namibia (<u>December 2016</u>)	"While decelerating, residential real estate prices continue their fast growing trend. () On average, house prices remain overvalued, raising risks of possible price corrections. Using common housing ratios and regression analysis from a cross country sample of house price reversal as in the 2015 Article IV staff report, staff estimates that in June 2016 the house price overvaluation at national level was on average around 16 percent, slightly lower than estimated in the 2015 Article IV".	
Spain (January 2017)	"() the housing market just started to recover".	
Sweden (<u>November 2016</u>)	"Housing finance creates vulnerabilities for financial stability due to specific features of Swedish residential mortgages, high household debt, and rising asset prices (). House prices have risen to high levels, slowing only recently. The price-to-income ratio is 40 percent above its 20-year average, among the highest in advanced economies, raising a red flag. Research suggests that house prices are 12 percent above long- run equilibrium".	
Switzerland (December 2016)	"Elevated exposure to mortgage debt continues, and low interest rates could rekindle a credit-driven upswing in house prices () [the authorities should] stand ready to adopt new macroprudential measures if credit and house prices again turn up, with a focus on the build-to-let segment".	

Turkey (<u>February 2017</u>)	"Turkish house prices have been markedly increasing for several years. The prices for homes rose cumulatively by 110 percent in nominal and 35 percent in real terms between end-2010 and July 2016. Valuation appears stretched by a number of metrics, such as price-to-income and price-to-rent ratios. The burden of household debt has also increased".

Box 1

House price measurement: Recent progress Niall O'Hanlon Senior Economist, Statistics Department, IMF

More countries are now compiling house price indexes

Since the global financial crisis there has been significant progress internationally on the measurement of house prices. When the BIS first published its <u>database</u> of residential property price indexes in 2010, 37 countries were included. Today it covers 57 countries, including 18 of the G-20 countries and all of the EU member states.

A 2009 Report to the G-20 Finance Ministers on the *Financial Crisis and Information Gaps* identified data on the stock of dwellings, the associated price levels and their changes over time as critical ingredients for financial stability policy analysis. In 2013 the *Handbook on Residential Property Price Indices (RPPIs)* was published by Eurostat to provide guidance and identify best practices so as to help improve availability and cross-country comparability of house price indexes. These have been important milestones in the progress of house price measurement globally.

Greater availability of indexes has helped policy makers monitor excessive house price growth and take a mix of monetary policy, micro prudential and macro prudential measures. Housing markets are receiving increasing attention and there are renewed concerns that rising prices may pose risks to some economies. For example, in November 2016, the European Systemic Risk Board issued <u>warnings</u> to eight EU countries on real estate vulnerabilities which pose significant systemic risks.

The map below shows that official indexes are available for 62 countries. The combined GDP of these countries accounts for around 90 percent of global GDP, making the coverage useful for multilateral surveillance. However, indexes are available for only about 30 percent of countries in the world (see map). So much more progress is needed to support policy needs in many countries. The IMF Statistics Department held its first seminar on house price index compilation in 2015. Since then, compilers from national statistical offices and central banks of 50 countries have participated. The seminars provide an overview of data sources and methods for compiling RPPIs, highlight the trade-offs involved in selecting a data source and address strategies for the longer-run development of data sources (see chart).



Data are key

The standard approach to compiling the consumer price index—comparing the prices of exactly the same products—cannot be employed since no two properties are exactly the same and we can only observe the price of property when it is transacted. Therefore, compilers must remove the impact of the changes in mix of properties sold (referred to as mix-adjustment) leaving a measure of "pure price change." There are several techniques for mix-adjustment, varying in terms of sophistication and effectiveness. The more effective techniques require detailed information on the physical and locational characteristics of property (for example the property type and size, or characteristics of the neighborhood) as well as the transaction details (price and date).

Securing access to data is often the biggest challenge—particularly in low income countries with less developed administrative systems. The comprehensive data on property characteristics and locational attributes necessary for adequate mix-adjustment might be unavailable. Data limitations can also mean that indexes do not have full coverage of the market. For example, using only bank data will mean that compilers miss cash based transactions.

In response, compilers are looking beyond single administrative data sources towards combining different data sets to facilitate sophisticated mix-adjustment techniques. For example, the <u>Central Statistics Office of Ireland</u> recently switched from using mortgage data to a combination of taxation (transaction), building energy rating (physical characteristics) and census of population small area data (relative affluence or disadvantage of a neighborhood) to give a more complete and accurate picture of house price change.



Compilers also are using big data sources, such as real estate web portals, for more timely respect of comprehensiveness, coverage and timeliness.

House prices are key indicators of household wealth

House prices matter for macro prudential purposes, as well as for socio-demographics. Buying a house will be the biggest single spending decision many households make and that decision should be guided by good information on the rate of price change and how current prices compare to longer term trends. Progress also has been made in respect of other housing related social indicators that are emerging. For example, the OECD produces priceto-income and price-to-rent measures for selected countries. These indicators of long run over or undervaluation relative to long term averages help to provide a more complete picture of the developments in the housing market.

Housing market research, much of it by private sector index compilers, is increasingly concerned with measures of inequality and exclusion. For example, Zillow recently published a study on the widening gap between the bottom and top of the US housing market. More broadly there is interest in how house prices impact household balance sheets and, in turn, on consumption by households. Ownership by gender, age, cultural background or income also may add important policy dimensions.

For many countries the new challenge is to move beyond just compiling house price indexes and to address the need for a more complete picture of the housing market and its impact on society.

Box 2 Housing Market in Africa: What We Do and Don't Know

Kecia Rust is the Executive Director and founder of the Centre for Affordable Housing Finance in Africa (<u>CAHF</u>). In this issue of the Global Housing Watch newsletter, Rust talks about how CAHF is tracking the housing market in Africa, the "Big Mac Index" for housing, why housing finance remains elusive, why housing matters to all stakeholders, and more.



CAHF Team

From left to right: Kecia Rust, Kudakwashe Mativenga, Miriam Maina, Adelaide Steedley, Samuel Suttner, Sireena Ramparsad, Kgomotso Tolamo, Aqua Suliali, Noluthando Ntshanga, Joseph Tembe, and Alfred Namponya.

Hites Ahir: How do you track the housing market in African countries?

Kecia Rust: Historically, not many people have looked at housing market activity in African countries. Policy makers have seen housing as a social good that satisfied a right to shelter, while the private sector had very little involvement in housing markets as the majority of even high income households built their homes themselves. Trading activity simply was not monitored.

With the development of land titling systems and mortgage markets in many countries, and increased investment attention on residential property, however, this is changing, and there are a number of agencies that highlight residential property dynamics in their respective countries.

The focus of most of these efforts, however, is on higher value, and luxury property markets. While this is certainly of interest to investors and participants in those markets, it overlooks the potential and dynamics of the much larger market of middle class and emerging middle class households who are also beginning to express a demand for housing. The key challenge in this market segment, of course, is affordability.

For the past six years, CAHF has conducted an annual survey of local, in-country experts, to get an indication of the state of housing markets and housing affordability. We have asked them to define, from their professional perspectives, the price of the cheapest newly built house, built in the past year by a private developer. We also ask for the size of that house. The data does not indicate the cheapest house that *can* be built, but rather the cheapest house that *is being* built. This distinction is important: developers choose their markets based on a variety of factors including their sense of local affordability (a function not only of income but also the availability of end user finance), access to materials and construction finance, and their sense of local expectations.



Figure 1: Price of the cheapest, newly built house by a formal developer: 2015 and 2016

Hites Ahir: What do current house prices tell us?

Kecia Rust: We can see a wide variation in the prices of the cheapest, developer-built houses. Of course, these are not equivalent structures. The US\$200,000 house in Angola is about 100 square meters, whereas the US\$10,000 Nigerian house is about 25 square meters.

But size doesn't necessarily correlate with price. In Uganda, a 120 square meter house is recorded as costing US\$30,000, while in Cameroon, a 200 square meter house was delivered and sold for about US\$20,000. Our method clearly wasn't comparing apples with apples, and local variation is invisible.

For this reason, we've tried a new methodology to track housing prices, by building something like a "Big Mac Index" for housing. Working with the Affordable Housing Institute, we designed a typical entry-level house: 46 square meters with a 9 square meter verandah, on a 120 square meter plot of land, in a 20-unit development. We prepared a Bill of Quantities down to brick level - with over 400 cost components - and sent this to Quantity Surveyors in 15 countries. We asked the Quantity Surveyors to prepare a quotation for this spec in the capital city, and another major city in the country. Then we checked the data, going back and forth with the Quantity Surveyors and thinking about local construction sector dynamics in the different countries. The data is about to be released, but we have some preliminary findings we can share.

We found that the price of this standard house ranged from just under US\$30,000 in Dar es Salaam, Tanzania, to just over US\$60,000 in Nairobi, Kenya. Significant variation was found in construction costs - the highest being in Kolwezi, Democratic Republic of Congo; as well as in infrastructure costs, which are particularly elevated in Lilongwe, Malawi and Monrovia, Liberia. High land prices, likely a result of urbanization pressures, were evident in Nairobi, Dakar, and Kampala.

The bigger story that this data is telling us is currently being <u>explored</u>, and we'll publish it shortly, but a very clear takeaway at this stage is that it is about much more than the price of bricks: in the construction costs category, the major difference for the countries where these costs are highest (Democratic Republic of Congo, Morocco), is labour - over a third of the total construction value. In Nigeria, while the overall house price is close to the average of just above US\$40,000, more than half of the construction component is labour. In some countries, indirect costs are a significant component of the construction component (Mozambique and Cameroon). Another category where there is quite significant variation is "other development costs". This includes Marketing, Finance & Holding Costs, and Sales Taxes. Sales taxes were found to be highest in Nairobi (US\$8,723, on a US\$64,000 house, or 13 percent of the total price), Kampala, Dakar, Lilongwe, Casablanca and Kolwezi. Finance

and Holding Costs were highest in Maputo (US\$6,346, in a US\$46,000 house).

Hites Ahir: Are these prices affordable?

Kecia Rust: No. Not even to a large minority. We have an <u>affordability calculator</u> on our website that calculates the monthly mortgage repayment on a loan for a house. The user can input the house price, and based on the mortgage loan terms and income distribution in that particular country, if the loan were indeed available, the calculator reports the monthly repayment, and the proportion of the urban population that can afford that house.

While a US\$20,000 housing loan is affordable to about 55 percent of urban households in Namibia, 49 percent of urban households in Morocco, and 59 percent of households in Cote d'Ivoire, it is affordable to only 3.8 percent of urban households in Kenya, 3.1 percent of urban households in Zambia, 0.7 percent of urban households in Tanzania, and 0.5 percent in Mozambique. If we reduced the house to US\$10,000, the proportion of households with affordability does increase - just over 10 percent in Kenya, 6.7 percent in Zambia, 2.4 percent in Tanzania, and 1.7 percent in Mozambique - but it is still very limited.

There are two ways we might deal with this. On the one hand, housing affordability is a function not only of house price but also the terms of financing it. In Kenya, a mortgage loan is available for over ten years at 17.1 percent, while in Zambia the rate on a mortgage in 2016 was 27 percent over 15 years. In Tanzania, a mortgage can be accessed for a 25-year term, but the interest rate is still high at 19 percent. In Mozambique, a 20-year mortgage comes at a rate of 25 percent. If we flip the analysis around, we find that just on the basis of mortgage conditions in a country, a household in Tanzania that could afford to repay a house costing US\$10,000, could afford a house in South Africa costing US\$17,500, and in Cote d'Ivoire costing US\$28,500.

Hites Ahir: Why is housing finance underdeveloped?

Kecia Rust: Housing finance markets in Africa are underdeveloped for a number of reasons. A key issue relates to the overall macroeconomic environment and the implications this has for access to and the cost of capital for lending. Lenders struggle to access capital to fund their housing loan portfolios - whether these are for mortgage or unsecured housing finance.

Many governments have set their Treasury Bill rates high, to attract investor capital to fund their own plans. This 'risk free' rate sets the baseline for any other investments that an investor may make. As the perception of risk increases, investors seek higher returns and this translates into the high interest rates that prevail - very many above 10 percent - across Africa.

The World Bank has been working in a number of countries to address this issue, with the introduction of mortgage liquidity facilities in Egypt, Tanzania, Nigeria and the WAEMU region. CAHF has developed a <u>case study</u> about these liquidity facilities.

There are also housing supply-side issues. Without housing stock being created in the price range that the market can afford to buy at scale, there isn't much argument for lenders to develop their housing finance products. Housing and finance are very closely interlinked - the performance of each is dependent on the performance of the other.

Housing finance – investment capital, construction capital, end user finance, and all the facilitative interventions (guarantees, insurance, subsidies, etc.) that happen in between – is a critical ingredient to addressing the housing challenge in Africa. This section of the financial sector is underdeveloped for two reasons. First, financial sector development initiatives focus largely on other sectors: insurance, agriculture, small business development, and mobile money. The notion of a housing sector in the African context is still very new and the financial sector is unfamiliar with its dynamics. This is possibly because of the second reason: that housing finance is dependent on a much wider array of activities and sectors that together comprise the housing value chain – activities that are beyond the financial sector's reach.

Hites Ahir: What are some of the challenges for the housing sector?

Kecia Rust: Challenges exist along the entire housing value chain, and each constraint in the system impacts on the availability of finance. Improving the flow of finance for housing requires improvements along the value chain – some of which extend outside of the housing finance sector. A weak value chain discourages investors, so they seek other targets and relegate housing sector investment to government. Government, however, does not have the capacity invest in the nation's housing process on its own – investor interest must be captured and maintained if the housing sector is to grow and develop and meet the needs of all residents.

Hites Ahir: How can policymakers address these challenges?

Kecia Rust: As a first step, policymakers must acknowledge that housing is a matter for attention across multiple sectors and multiple departments. This means that it is not only the

housing and land department that must champion housing investment, but also the Central Bank and national treasury, as well as the National Deeds Registry. This is a matter for Cabinet attention.

On the housing and land side, there is a critical need for focused interventions into land and titling, and into infrastructure to support residential development. Housing delivery at scale cannot happen without those ingredients, and their absence is a key reason why housing continues to be delivered mostly by households themselves. Much of housing delivery is influenced by what is happening at the local level, however - and it is here that municipalities can apply specific levers to influence market dynamics and stimulate supply. Zoning, subdivisions, building plan processes and approvals, as well as administrative incentives that ease the costs in both time and money of the housing delivery process, are all levers that municipalities can apply to stimulate investment in housing.

On the finance side, macro-economic interventions to reduce the cost of capital and contain interest rates to reasonable levels for long-term finance are critically needed. Beyond that, policy makers should also consider the policy and regulatory issues that make mortgage lending possible and influence the cost of construction. In this regard, taxation appears to be a significant issue. Policy makers might wish to restrict taxes to upmarket housing for the wealthy, offering relief to the emerging middle class in the purchase of lower cost housing, or review how their current tax regime impacts on the attractiveness of this particular asset class. The Doing Business Indicators show us that in some countries, the cost of formally transferring property can be more than 10 percent of the value of the property. This becomes a serious disincentive to formal transactions.

To understand all of this, a clear and targeted monitoring and evaluation system is required. City, provincial, and national governments should be collecting data on housing market performance and making this available in the public domain for analysis and engagement by investors and other stakeholders. CAHF believes that a key constraint is the lack of market intelligence - accurate and trended market information, a clear indication of risk and return, and track records that prove long-term viability - specifically targeting the opportunities and the challenges that relate to the affordable housing market. Without this information, practitioners move to familiar territory and high margin activities, while governments are left wondering why they don't engage. Bringing together the efforts of the public and the private sectors towards workable interventions that target increased opportunities for housing that is affordable to all market segments, is a key aim of CAHF's work.

Hites Ahir: Are there any success stories that policymakers can learn from?

Kecia Rust: On the government reporting side, there are some very interesting interventions underway. The central banks of both Kenya and Tanzania publish mortgage market updates that provide information on the development of their mortgage markets. And the Nigerian Mortgage Refinance Corporation is in the process of developing a Nigerian Housing Finance Hub, to collect data about Nigeria's housing finance market and share this with market players.

Some governments are improving their administrative regimes: Guinea Bissau has made significant improvements in the time it takes to transfer property, while Senegal has reduced the cost of registration significantly.

Then there are very interesting investors that have made improvements with the force of their interest in making development happen: International Housing Solutions managed to stimulate the construction of over 27,000 houses for the working class in South Africa, through its first fund and is now seeking to replicate this experience in a second fund. Phatisa's Pan African Housing Fund is active in developments in Zambia, Rwanda, and Kenya. IFC's investment in the Chinese multinational construction and engineering company, CITIC Construction, is intended to set development precedents, targeting a scale delivery approach that is currently not very common across the continent. And there are more. Policy makers should actively engage with these efforts by the private sector to identify where they can smooth the value chain to enable more and better investment.