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Homespun wisdom masks risks

Fears have grown over the world economy and signs that some markets may be overheating, reports *Miles Johnson*

Following Mark Twain's advice to buy up land because "they aren't making it any more" may be an investment cliché but, for all that, it contains a hard kernel of good advice.

Those who have ploughed money into property in the years since the financial crisis of 2008 have reaped the reward of ultra-cheap borrowing and rising prices, helping rekindle faith that Mr Twain's adage will run true over the long term.

Yet there are signs that the most recent boom may be coming to an end. Concerns have grown over the state of the global economy and signs that some residential and commercial markets from London's Mayfair to San Francisco and mainland China are overheating.

According to one long term property pricing model compiled by Aberdeen Asset Management, the global market at the start of 2016 was overvalued by 26 per cent, the highest level since the eve of the financial crisis in 2007.

"Market pricing looks stretched when viewed against its own history," the fund manager concluded, noting that commotion across the global economy was weighing on investor sentiment towards property.

This concern is understandable because the safety margins many have left themselves since the crisis are thinner than ever. As prices have risen, the returns that investors are willing to accept for investing in real estate have come down. This implies that many in the market could be losing discipline at a time of low returns from competing investments such as government bonds.

Last year MSCI, a research and data company, concluded that US real estate investors were accepting lower yields than before the crisis of 2008, noting that the pricing of real estate around the world had become "increasingly aggressive".

All this has resulted in veteran investors in some of the world's priciest locations appearing to call time on the boom, as some others have been selling off assets quietly over recent years.

Grosvenor, controlled by the Duke of Westminster, and landlord over much of Mayfair in London, has warned about lower property yields and rising exuberance in its core market as it has trimmed exposure to prime London real estate. In its most recent annual review Mark Preston, Grosvenor's chief executive, said: "The top end of the residential market in London has passed its peak," adding: "This, I suggest, vindicates our decision to sell a part of our London residential portfolio."

At the same time, so-called "smart money" — private equity firms and hedge funds that specialise in complicated and sometimes distressed real estate investment — is continuing to deploy capital into bricks and mortar around the world.

"There are various microclimates in European property," says one UK-based hedge fund manager. "London prime real estate is heavily overvalued but there are some great deals still in continental Europe."

Since the financial crisis of 2008, Blackstone, the US private equity group, has become the world's largest single property investment manager, raising over $40bn in capital to invest in the sector between 2010 and 2015. Beyond more conventional destinations, Blackstone was an early investor in India and is that country's largest owner of office parks.

Cooler weather: a pedestrian shelters on Grosvenor Crescent, one of London's most exclusive streets Simon Dawson/Bloomberg

Private equity groups have been scouring continental Europe for deals as the region's banks have gradually unloaded distressed assets.

Uncertainty over how secure this global real estate boom can remain has increased this year as various macroeconomic and political risks have caused investors to think twice before making large purchases.

In the United Kingdom concerns over a forthcoming vote on the UK's continuing membership of the European Union have served to delay investment decisions and create worry about how an exit could affect an already loftily valued market in prime London.

Shares in Berkeley Group, which specialises in selling very expensive new properties, have fallen by a fifth since the start of 2016, while the stock of other UK-focused real estate companies has also suffered.

Some hedge funds have gone so far as to start betting against Berkeley Group, the UK housing developer, by selling short its shares. They believe that its reliance on wealthy buyers from emerging markets who are now feeling the pinch will see its shares fall further.

> Private equity groups have bought up distressed assets offloaded by European banks

Away from the UK, the collapse in the price of crude has hit the economies dependent on oil revenues and so reduced demand for real estate investment opportunities from sovereign wealth fund managers.

A recent report by property consultants Savills noted how, over the past five years, the total amount of net direct real estate acquisitions globally by sovereign wealth funds was $89bn. Some 60 per cent of such funds are heavily dependent on oil for their revenues.

Uncertainty over the policy direction of the world's most important central banks has weighed on sentiment. Many emerging market currencies have weakened against the dollar and euro, increasing uncertainty for non-hedged overseas investors seeking to buy in the US and Europe. Cross-border investors made up more than half of the total European commercial real estate market last year, meaning any slackening in demand from such buyers would probably weigh on pricing.

There is yet to be a severe price fall in global property but the signs during the first quarter of this year are that a slowdown is on its way.

Investment into European commercial real estate, a market that had €77bn of deals registered in the first quarter of 2015, fell by 40 per cent to €46bn in the first quarter of 2016. A chorus of UK estate agents have warned that transaction volumes have fallen sharply ahead of June's referendum on Britain's EU membership.

In the US, signs of slackening demand from overseas' buyers have hit sales of luxury property. Senior bankers have sounded notes of caution on the US commercial real estate market.

Brian Moynihan, chief executive of Bank of America, which has a $58bn commercial real estate portfolio, said recently that the bank had to be "careful" in this part of the market and avoid overexposure as rivals were extending lending to developers.

Developers and their lenders will have to wait anxiously to see whether such comments help calm the market, or whether a more painful price fall is on its way.

As Mark Twain observed, the quantity of land may be fixed. The price people are willing to pay for it, however, can quickly fall.

Inside

Cities look to halt drift from the centre

Housing shortages

Metropolitan leaders are seeking ways to make life affordable for working people, writes *Judith Evans*

When engineers in Singapore this year announced a pilot project to 3D-print apartments, it was the latest and most eye-catching attempt to address a long-running problem: housing affordability in the world's most successful cities.

Urban centres face an escalating struggle to avoiding pricing out the workers on whom they depend. According to the Global Cities Business Alliance, average annual housing costs in Beijing are more than the average salary. In Mexico City, the average commuter spends two hours a day travelling and the typical cost of a rented home in San Francisco rose by 67 per cent in the six years to 2015 (*see Page 6*).

Such conditions suck up time and money that could otherwise be deployed productively in a city economy, the GCBA says. Since the world's urban populations overtook rural inhabitants in 2007, attempts to mitigate the problems have increased.

"I don't think any great or growing city can sustain its vibrancy and its competitive position if it's only affordable to the highest-income workers," says Stockton Williams, executive director at the Terwilliger Center for Housing in Washington, DC. "We are seeing considerable innovation in local policy to try to respond."

One increasingly popular solution is "inclusionary zoning", or IZ, the requirement that new developments include a certain proportion of low-income or affordable housing. New York City in March approved a mandatory programme backed by mayor Bill de Blasio. In the same month, Ontario in Canada brought in an IZ scheme. Similar requirements are in place in the UK and in more than 500 US cities.

Stack 'em high: My Micro NY modules nARCHITECTS/mir.no

An IZ programme in place since the 1970s in Montgomery County, Maryland, has created more than 14,000 homes for lower-income families in otherwise wealthy neighbourhoods. A report last year by the US Lincoln Institute of Land Policy found that this has had the added bonus of promoting racial integration, although the report conceded that such successes can prove hard to replicate.

Beyond that, IZ comes with a prerequisite — that developers have appetite to build at all. "The extraordinary boom in high-end residential development in cities has offered huge potential to harness this dynamic, but one reason [IZ] has faltered in the US and London is because even if it's perfectly designed, it won't achieve much in a falling market," Mr Williams says.

Lesley Saville, GCBA chief executive, points out that cities tend to implement these socially inclusive strategies as part of broader programmes that include measures like releasing public land for housebuilding and integrating construction with transport links.

Another straightforward option, however, and one that can prove politically popular, is to limit purchases of homes in a given area by non-residents. Hong Kong introduced an additional 15 per cent stamp duty charge for non-resident buyers of homes in 2012, aiming to reduce speculative buying and help locals to purchase homes actually to live in. That did not prevent property prices reaching record levels in 2015 but sentiment has since turned, partly thanks to rising supply of new homes.

Abu Dhabi and Dubai limit the areas in which overseas buyers can purchase homes. China allows foreigners to own only one property and requires them to prove they have been resident for a year at the time of the transaction. Ms Saville points out that such rules may be aimed at "prioritising cities' existing residents".

Mr Williams is sceptical of such measures' effectiveness, on grounds that reducing the flow of funds tends to discourage development. "They're not likely to have any beneficial effect on increasing development," he says. "The evidence is compelling. Any limitations on development, investment or purchase will ultimately be counterproductive."

Since all crowded cities need new homes, several — especially in Latin America — have opted to introduce financial incentives to encourage development or home ownership, notes Ms Saville. In Singapore, workers can withdraw funds from their public pensions to invest in property. In Mexico City, mortgage loans are subsidised to help keep the less well-off in the city centre.

The building industry has also been adapting. Off-site or modular construction can aid faster building that requires fewer skilled workers. In dense cities such as New York and London, these techniques are being used to build "micro-homes", namely small apartments designed for compact living without the drawbacks of overcrowding.

Units in My Micro NY, an apartment complex prefabricated in Brooklyn, totalling 260 to 360 sq ft each will go on the rental market this summer. In London, so called Pocket Living apartments at the top of that size range have been available for sale at affordable rates for a decade and have long waiting lists.

In Singapore, this is where the 3D-printed blocks come in. Researchers at Nanyang Technological University hope that structural components of apartment blocks can be "printed" within three years from a concrete-based material off-site by robotic printers, then assembled like Lego bricks. Although this might sound far-fetched, a Shanghai company is using similar technology.

Such futuristic thinking appears to be needed. "In the cities we're talking about, it's more about trying to get closer to an equilibrium and a more balanced supply," says Mr Williams.

Rio's Olympic building spree fails to enthuse

Brazil An economic crisis is prompting many in the country to query the benefits of hosting the games, says *Samantha Pearson*

Clockwise from top left: Rio's athletes' village; aquatic centre; an aerial view of Maracana and Maracanazinho districts; work on a handball court
Matthew Stockman/Getty Images and Dado Galdieri/Bloomberg

It had been hailed as the most beautiful cycle lane in the world. Opened in January as part of Rio de Janeiro's preparations to host this year's Olympics, the 3.9km-long track clings to the city's rugged coastline, connecting the upmarket Leblon beach to the hang gliding spot of São Conrado. It was one of the best ways to take in the city's stunning views — that was until one Thursday morning in April when a large wave ripped out part of the track, causing two men to plummet to their deaths.

It marked a new low for Rio, which has been hit by recession, the bankruptcy of its most famous businessman and advocate Eike Batista, and the vast corruption scandal at Petrobras, the Rio-based oil major.

When Rio was chosen in 2009 as the first South American city to host the Olympics, Brazil's then-president Luiz Inácio Lula da Silva effused about how the games would usher in a new golden age for Rio. Naturally, the decision had property executives salivating at the prospect of a bonanza of residential and commercial developments.

As Brazil has sunk into its worst recession in more than a century, however, many people are not only asking whether the games' R$40bn ($11.6bn) price tag is justified, but also whether they will deliver a legacy of improved transport and residential infrastructure when the games have gone.

Eleven workers have died so far building Olympics-related structures and, after the cycle lane's collapse, photos of other seemingly shoddy work have gone viral on social media.

Others fear a mass outbreak of Zika — the mosquito-borne virus linked to birth defects — while worries are growing about a possible terrorist attack, adding to the soul-searching over the wisdom of taking on the event. For the Workers' Party (PT), the games are set to be a particular disappointment — Mr Lula da Silva's protégée, President Dilma Rousseff, is expected to be impeached before the Olympics begin.

> 'One of the major legacies will be the tremendous amounts of debt'

Hosting the games is a risk for any country but even more so for developing nations, says Professor Andrew Zimbalist, a sports economist at Smith College in Massachusetts, whose book *Circus Maximus* looks at the economic gamble of hosting the football World Cup, which Brazil did in 2014, and the Olympic Games.

"It requires extraordinarily effective planning, which is difficult in the best of circumstances and almost impossible in an emerging country, especially one that has a dysfunctional political system, which Brazil has," he says.

Even developed countries struggle to get it right, adds Prof Zimbalist. Barcelona's Olympics in 1992, which Rio's government has cited as a model for its preparations, left the Spanish government $4bn in debt.

While the London games of 2012 have been praised for their regenerative effect on parts of east London, the surrounding area was already showing signs of a more natural revival before hosting the event, critics suggest.

In the case of Rio, at least the Olympic venues are set to be ready on time. The Olympic Park, which is expected to house schools and private developments after the games, is 98 per cent completed. A series of new highways and a light railway line are also nearly ready.

The extension of Rio's metro to Barra da Tijuca, the upmarket neighbourhood in western Rio that will host much of the games, has raised the most concern about hitting deadlines but is still scheduled for completion by July.

Private property developers have more cause for pessimism as demand for residential and commercial space has slumped in the recession. One of Barra's most ambitious new developments is Ilha Pura (Pure Island) — a vast luxury residential complex being built by construction groups Odebrecht and Carvalho Hosken that will house the Athletes' Village. With less than three months to go until the games, only 40 per cent of an initial lot of 600 apartments have been sold — just under 7 per cent of the total 3,604 apartments on offer, Odebrecht says.

"There is a crisis of confidence in the market," notes Ulisses Conceição Chagas, a property broker in Rio, drawing a comparison with Vila Pan-Americana, a similar complex built to house athletes in the 2007 Pan American Games. "Vila Pan-Americana was sold out in the same day."

On the other side of Rio in the port region, parts of which have been redeveloped in time for the Olympics, the situation is just as dismal. Porto Vida, set to be one of the area's first new residential developments, lies abandoned after construction work came to a halt two years ago. Nearby, property developers MRP International and Even, in partnership with Donald Trump, planned to build Trump Towers — five 150m-tall towers that would be the biggest office development in emerging market countries. However, construction has been delayed.

There is little doubt that the city will impress tourists during the Olympics by putting on a characteristically Rio party-filled event — as it did for the World Cup two years previously and as it does every year for carnival. The expansion of the metro and other improved transport links will be welcomed by many — but government funds deployed would have been better spent elsewhere, says Prof Zimbalist.

Rio's health system, for example, is at breaking point as a budget shortfall has left hospitals without basic supplies. "It's very hard to identify any positive legacies," Prof Zimbalist adds. "One of the major legacies will be tremendous amounts of debt."

Time for hosts to row back on ambitions

OPINION

Wolfgang Maennig

Wolfgang Maennig

Let me start with an admission. I am an Olympics fanatic and have twice competed at the games as a rower.

But I am also an economist. So, while I welcome the spectacle of bringing together some of the world's most talented young people in pursuit of the Olympic ideal, I must concede that, from a theoretical economic point of view, the Olympic Games of the modern day create hardly any net benefit for the host city.

This harsh conclusion can be blamed on the role played by bodies, such as the International Olympic Committee, which act as monopolists in awarding the right to host major sporting events to the best bidder in a procedure that bears the character of an auction.

This commonly leads to cities outbidding each other by promising larger stadiums, bigger airports, better hotels and transport facilities to match the ambitions of games' organisers. Just as in normal auctions, applicant cities are driven to raise their bids until their net advantage — the difference between gross benefits and the "price" that has to be paid — become negligibly small or zero. Hosting the games becomes a winner's curse.

This is why economists are not surprised when they cannot find in academic studies any overall positive effects from hosting an Olympic Games in terms of income, employment, tax revenue or other measures.

The Olympics were never intended, neither in classical times nor with the restart of the modern games by Pierre de Coubertin in the late 19th century, to be an engine of economic growth or urban renewal. The aberration really started with the 1992 games in Barcelona.

Barcelona did very well in using the Olympics as a catalyst for urban development — at a price. Some other stagings of the event have been marred by being politically misused (Berlin 1936), by terror attacks (Munich 1972) or by disastrous cost control and a legacy of financial debt (Montreal 1976).

The "Barcelona syndrome" nowadays means bids are not just about showcasing top athletes. They are also couched as exercises in urban "strategic planning".

Master plans and zoning which normally take decades to be decided and implemented in modern, multi-layered democratic societies are accelerated. The Olympics provide an exceptional imperative for bypassing established procedures in fast-track decisions.

Is the use of the Olympics as a tool for leveraging urban regeneration strategy effective? There is little doubt that legacy sporting facilities can have value

> The Olympics were never intended to be an engine of growth or urban renewal

— as can improvements in transport infrastructure tied to Olympic projects — which has been well measured by empirical studies. These are costly and there is also growing concern about "white elephant" projects in stadiums and facilities which deliver little value after the event.

Then there is a recognition that in property terms, hosting the games creates winners and losers, off as well as on the track. With this year's Rio games — which closely follow the Brazil World Cup in 2014 — the creation of losers has been extreme. It is estimated that, all over Brazil, families in their several tens of thousands have been moved. This has sometimes led to the impoverishment of those concerned. For them, transport costs have increased alongside their travel time from home to work.

Even so, many still argue that breaking up the usually sclerotic processes of urban planning may be the most beneficial effect of the Olympics. I tend to agree but am also hesitant on this argument: are districts in European cities with the highest quality of life the result of master planning? Or is urbanity the result of a development to which a multiplicity of different actors, interests and initiatives contribute? Over decades multi-layered democratic decisions, including bottom-up participation potentially challenged by juridical decisions, evolved — because civilians thought it to be a good idea.

Public debt crises in Asia, Europe and North and South America have contributed to a rethink about public spending. What is spent on a stadium cannot be used for schools.

From some quarters, arguments are being made for the scaling back of the Olympics and other major events. Rejections in city referendums over whether to apply to host the Olympics in Hamburg and Vienna show many are unconvinced that a genuine and substantial net benefit can be expected to flow from a winning bid.

Perhaps there is a growing sense that the Olympic Games should no longer be regarded as an engine for urban regeneration. Instead, games organisers should see granting host status as a coronation for cities which — independently of the Olympics — have created an urban environment, including transport and sporting facilities, offering citizens an outstanding quality of life.

Wolfgang Maennig is economics professor at the University of Hamburg, specialising in sport economics, real estate and urban policy. He was a gold medal winner in the eights at the Seoul Olympics in 1988.

Lack of interest

Ultra-low base rates have fuelled property boom

In a notoriously cyclical industry, the buoyant investment volumes flowing into property over the past two years stand in stark contrast to the crippling losses and corporate failures that were part of the global financial crash of 2008.

That downturn persisted through 2009, well beyond the launch of the first tranche of quantitative easing by the US Federal Reserve, designed to stimulate demand and in part to prevent any further collapse of property prices and further rounds of bankruptcy and foreclosures.

Other central banks followed this lead which helped staunch the fast expanding volumes of distressed real estate assets across the world.

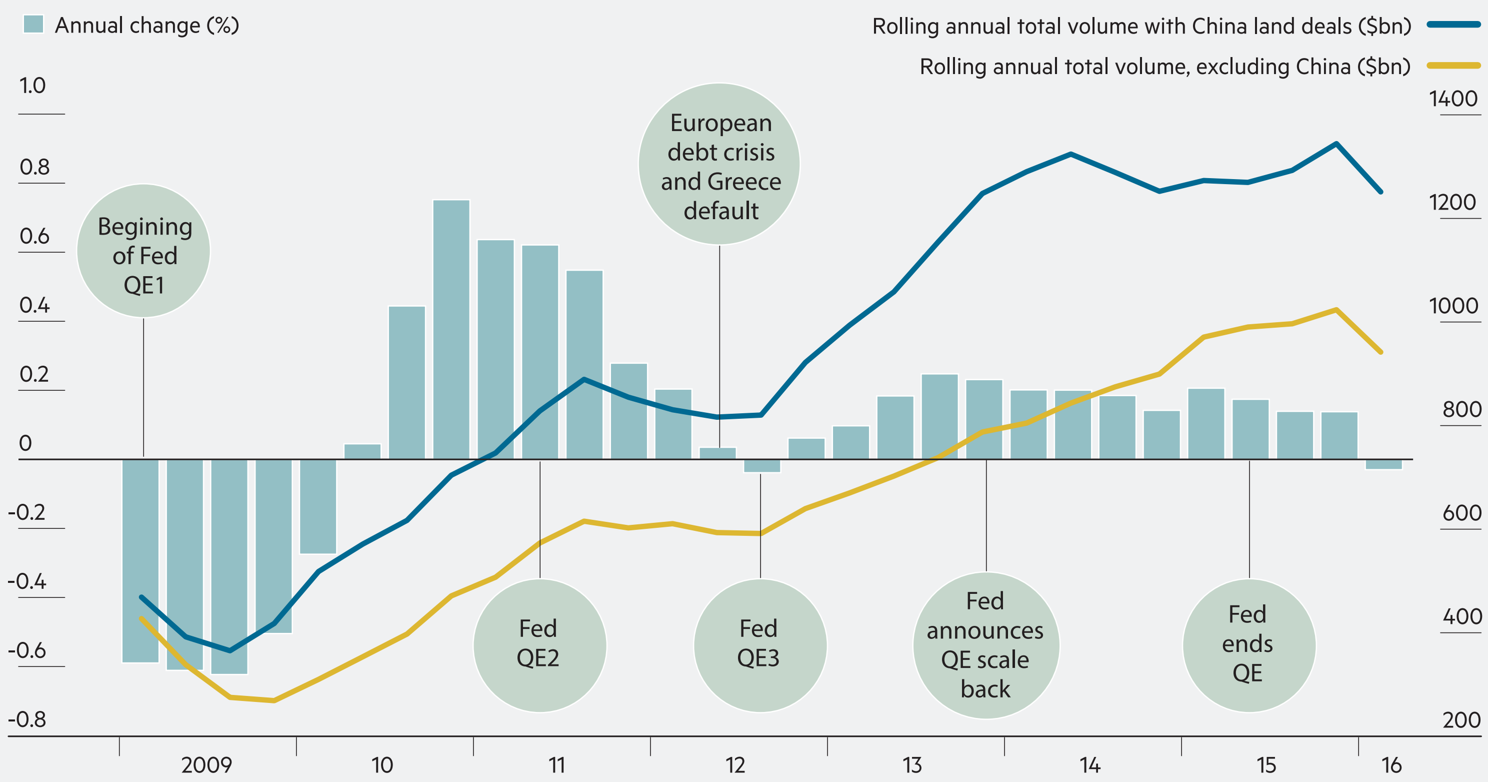
By the summer of 2010, spurred on by low interest rate policies and confidence that the worst was over, money began to flood back into property as institutional investors attempted to profit from low borrowing costs and the bargains on offer. The period, described as "bounceback" by Savills, the property group, waned following the launch of a second round of QE, leading to the "cooling" phase covering much of 2012 which was marked by the eurozone debt crisis and Greek default — the largest sovereign debt default in history.

Once calm was restored, institutional appetite for weighting investment portfolios back into property was re-established and positive growth in global real estate investment volumes resumed.

This ushered in a long period of stability — marked by more subdued investment volumes — from the end of 2012 to 2015, during which a boom in property values has compressed rental yields. But concerns over high pricing have seen transaction volumes slacken notably in the past two quarters.

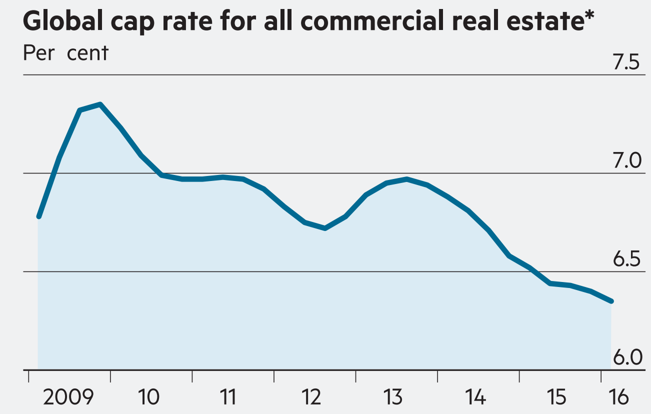
Michael Kavanagh

Global real estate investment volumes



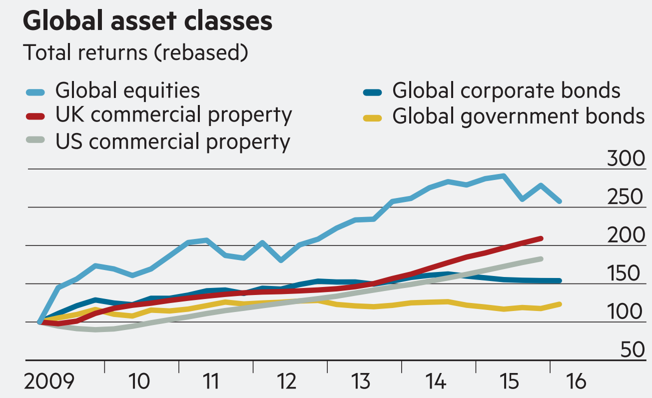
FT graphic Sources: Savills; Thomson Reuters Datastream Photos: Dreamstime; Getty Images

Global cap rate for all commercial real estate*



* Cap rate is the percentage of net operating income to property asset value

Global asset classes



Rail routes to building returns

Transport More public services can be vital to driving interest in urban housing development, says *Barney Thompson*

From orbital motorways to new railway connections and expanding airports, major transport projects spark passionate debate.

Opponents say such schemes disrupt or destroy communities, damage ecosystems or end up being too expensive to run without state subsidies. On the other hand, supporters point to a wide variety of schemes that were bitterly fought in the planning stages, yet have brought significant gains to those living close to them.

Emblematic of this struggle is the UK's £42.6bn High Speed 2 rail project from London to Birmingham and then on to Manchester and Leeds. Critics say it will cut through picturesque countryside and have attacked the scheme on value-for-money grounds.

Its backers, on the other hand, highlight the benefits of its cousin, HS1, which opened in 2007 to connect London to the Channel tunnel: quicker journeys, additional commuter services, house price increases, tourism growth and boosts to business and productivity.

Andrew Jones, practice leader on design planning and economics at Aecom, an infrastructure company, says establishing a clear link between infrastructure investment and wider economic growth has become central to the sales pitch.

"We are in a new generation of funding where there isn't the public willingness to put cash on table ahead of the scheme," he says.

In the UK and beyond, a commonly cited example for the success of integrated "rail plus property" investment is MTR, the group that operates transport networks in Hong Kong, Beijing and Stockholm. It will also run the London's east-west arterial Crossrail line when it opens in 2018.

MTR makes £380m a year in profit from its property portfolio, which includes kiosks and shopping malls next to, or on top of, stations.

In Hong Kong, MTR has had a monopoly position that has given it substantial commercial advantages. Nonetheless, the model has become so admired that it is almost impossible to find a proposed rail project today without a business case that calculates the uplift in property values, both residential and commercial, as well as the boon to existing businesses from increased footfall.

"The MTR network is absolutely about how to unlock development potential, especially above and around stations," said Aecom's Mr Jones. "It is central to the business case."

In similar vein, new transport infrastructure's cheerleaders point to the extension of London's Jubilee underground line — which wowed passengers with its cavernous new stations when it opened in 1999 — as a prime example of a project that has delivered "added benefits". The development and regeneration for both the Olympic Games site in east London and the Canary Wharf business district.

The roof garden at Canary Wharf Crossrail station in London
Chris Ratcliffe/Bloomberg

'We allow too much windfall gain to go to speculators'
Andrew Jones, practice leader, Aecom

"That's what the industry is grappling with — tying projects to urban growth to help pay for them . . . [and] capturing the value . . . around node points where public investment is going to support commercial benefit," said Mr Jones.

Richard Threlfall, UK head of infrastructure and construction at KPMG, says the evidence of the windfall in property values from the Jubilee Line became part of the rationale for the business rate supplement introduced by the mayor of London to help fund the Crossrail project.

"And it will no doubt form part of the thinking for Crossrail 2," he adds, referring to proposals for an even more expensive (at least £27bn) and ambitious rail line that would link south-west and north-east London as well as destinations beyond, with the aim of delivering 200,000 extra homes the region.

In fact, private developers' enthusiasm for the uplift in property values has created a problem: how to ensure that the public sector can also capitalise — and thus find longer-term sources of revenue to help to pay the bill for a major project — if it does not have the control MTR enjoys in Hong Kong.

The potential boost to land and property values has now been so well demonstrated that developers "are always quicker out of the blocks than the public sector," Mr Threlfall says.

"We allow too much windfall gain to go to speculators. Developers get years and years of notice before legislation [giving the green light to a major project] is passed," he adds.

A London School of Economics report that analysed property transactions for signs of an uplift from the Crossrail project found that between 2005 and 2013, central London office properties within half a mile of the new stations saw a 15 per cent boost in values over and above a rising price trend.

Between 2008 and 2013, more than 40 per cent of planning applications within a kilometre of stations cited the new route as a justification for going ahead with construction, according to research commissioned by Crossrail.

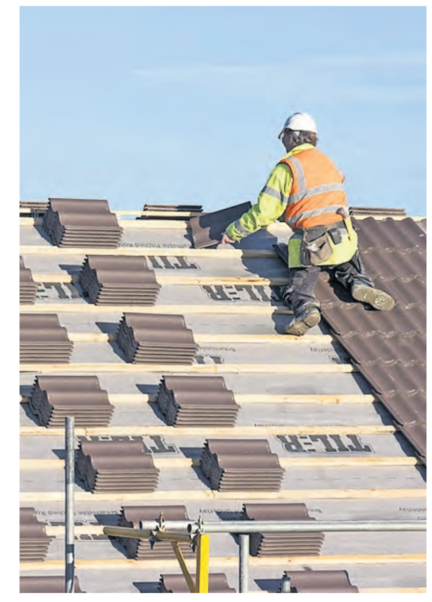
Similarly, several years ago property consultants JLL carried out a study for Transport for London on the effects of the Jubilee line extension. In the two areas studied, Canary Wharf and Southwark, there had been a rise in land and property values totalling hundreds of millions of pounds.

"Very few people would argue now that increasing transport does not drive economic growth," says Mr Threlfall.

Land hoarding suspicions drive political protests

Landbanks

Slow progress in developing vacant land to alleviate housing shortages has many causes, reports *Kate Allen*



Out on the tiles: roofers at work

In major cities and conurbations across the world, rectangles of scrubland stand on suburban roads, surrounded by houses and flats. You have almost certainly walked past a place like this and wondered: "Why has nobody built on this?"

In property hotspots, developers have long been accused of hoarding land to artificially fuel its shortage and thus hike their profits. Boarded-up ex-industrial sites ripe for residential use seen scattered around most major cities do nothing to dispel that perception.

But the reasons why such voids persist in valuable urban areas is complex and not necessarily malign.

There are three main explanations as to why construction activity does not proceed apace on such patches of lucrative scrubland.

The first is relatively benign and practical: when developers are building large sites they can only carry out the work at a pace at which customers will buy the resulting homes, says John Stewart, director of economic affairs at the UK's Home Builders Federation. "Local markets can only absorb a certain number of units at a certain price each year," he says.

In the UK, politicians and campaigners have claimed that in recent years, a period of lucrative house price inflation, large housebuilders have been loath to accelerate construction rates. Doing so could undermine selling prices inflated by constricted supply. Yet Mr Stewart insists that "in the vast majority of cases" builders start work on sites as soon as they are able to do so.

A study this year found nearly half a million homes in England had received planning approval but had not yet been built, helping fuel complaints that housebuilders were deliberately holding land back. But the study did not discriminate between sites on which construction had not been fully finished and those that remained untouched. So the total figure included many tracts of land which were in the process of being developed.

A series of official reviews of the UK housing market carried out over the past 15 years have repeatedly found little evidence that housebuilders hoard land on a widespread scale.

The second reason why land in desirable locations lies empty relates to the process housebuilders must go through in order to start construction.

Although housebuilders argue they do not routinely hoard land, they do have what are known as "land banks". These can cover plots where some element of development is under way. But in some cases — what housebuilders call their "strategic land bank" — the land sits idle because the developer has signed a deal with its current owner to buy the land if they manage to secure planning permission for it.

Securing planning permission for new homes is a lengthy and complicated process and often subject to a wide range of local objections as well as political support.

The pace of housebuilding can be stymied by these option-to-purchase agreements that "stop anyone else from coming along building on the land sooner, stalling the whole development process", according to Toby Lloyd, head of policy at UK housing charity Shelter. There is "no transparency" about these agreements, making it impossible to know how much land housebuilders are controlling in this way, Mr Lloyd says.

But a third reason for lots lying idle, according to campaigners for cheaper housing, is pure financial speculation. And, if there is little clear evidence in the UK of housebuilders being the main culprits in this, policy is shifting towards penalising speculators who buy but have no immediate intent of building on empty land.

A US study in 2010 found evidence of land speculation driving up pricing through hoarding. Research on the Chinese property market in 2014 also found a similar phenomenon there, concluding property speculation had been "detrimental to sustainable development".

The Irish government recently announced a new levy to deter land hoarding after it identified 282 sites in Dublin city centre which could be built on but were being left unused.

This year, Taiwan tightened rules on the construction of new hotels over fears that developers were hoarding land. Builders must start work within nine years of receiving planning approval.

Policy is shifting towards penalising speculators who buy but have no immediate intent of building on land

Although these cases pinpoint specific examples, little research has been carried out to quantify the proportion of unbuilt land which is owned by people or organisations with no intention of building on it.

But what little has been uncovered is enough to suggest it is a substantial proportion. A 2012 study by the Greater London Authority found that in London 45 per cent of homes which had been given planning permission were on sites owned by people and organisations that may lack the means or intent to build, such as private individuals, investment funds, historic landowners and land trading firms.

Mr Stewart emphasised that housebuilders themselves do not generally engage in this practice. "They only earn their profit when they sell. If they bought the land and sat on it they would have to make back their normal profit margin plus their cost of financing that acquisition — it just is not worth it."

But Mr Lloyd said that the speculative land trade was "a major issue" and of "serious concern". Measures commonly proposed to help free up the land market include breaking up large plots so several different developers can build on them, requiring developers to publish information about their options-to-purchase, and taxing unbuilt plots.

Builders seek higher rewards as they raise environmental game

Sustainability

The 'greening' of buildings is becoming a commercial as well as an ethical imperative, reports *Brian Groom*

Property investors under growing international pressure to take a lead on climate change will be looking closely at developments such as 5 Pancras Square, King's Cross, a £123m leisure centre and offices opened in 2014 by London's Camden Council.

The building has won multiple awards for environmental features including a bio-roof, solar panels, cycle racks, use of daylight, rainwater harvesting and heating drawn from a low-carbon district network. It is estimated to cut carbon emissions by 64 per cent compared with the council's old buildings, saving it £500,000 a year.

Other eye-catching projects around the world include: a science centre at Spain's University of Valladolid that uses biomass, solar and geothermal energy; a heating and cooling system at New Zealand's Christchurch airport that takes heat from an aquifer; and a Norwegian house tilted to the south-east so that solar panels can catch sunshine on its sloping roof.

Last December's Paris accord on climate change lifted "green buildings" up the international agenda. Success in reducing global warming will depend on tighter environmental regulations but also on whether those who invest in offices and homes believe it to be in their interests to take action.

Property owners and investors see financial advantage in creating sustainable buildings. These typically cost 5-15 per cent more than conventional ones but in the right circumstances that can be recouped through energy savings, leading to higher property values, higher rents and longer leases.

Some of the world's largest institutional investors, including Calpers, California's largest public pension scheme, and APG, the Dutch pensions group, have set energy or carbon reduction targets for their property portfolios.

There are barriers, however, and a substantial investment gap exists. The EU is believed to need five times the current level of investment in green buildings to meet its carbon reduction targets by 2030.

The Paris deal did not set specific targets for the buildings sector, but about 90 countries out of the 195 that took part made commitments to reduce emissions from buildings.

Tatiana Bosteels, head of responsible property investment at Hermes Real Estate, an asset management company, backs the bottom-up approach of the Paris deal: "The big difference is it is not coming from outside, it is . . . every country taking the time to define what they believe they can do within their own constraints."

UN officials say buildings offer the greatest potential for achieving greenhouse gas emission reduction

All mod cons: Camden's environmental award winner in King's Cross

Without action on buildings, the Paris Agreement's goal of limiting temperature rises to "well below 2C above pre-industrial levels" will be impossible to meet.

Residential and commercial properties account for about 30 per cent of greenhouse gas emissions and 40 per cent of global energy use, according to the UN. If present trends continue, carbon dioxide emissions by the sector are likely to increase by 70 per cent by 2050.

UN officials say buildings offer the greatest potential for achieving greenhouse emission reduction and that energy consumption can be curbed by between 30 and 80 per cent using existing technologies.

In developed nations, the priority is retrofitting old buildings by installing triple glazing, insulating walls and roofs and upgrading to LED lighting. In the developing world, more than half the buildings likely to be needed by 2050 have yet to be built. The focus there is on building structures that use natural light and ventilation and installing renewable energy systems such as rooftop solar panels and geothermal energy.

Ms Bosteels says unlocking investment will require more evidence on cost effectiveness and more financial instruments such as green bonds. Hermes has cut carbon emissions in its £6.5bn property portfolio by more than 5 per cent in each of the seven years since it started publishing its carbon footprint. "We have enough evidence within our portfolio that it is adding value," she says.

Oliver Rapf, director of the Buildings Performance Institute Europe, a research body, says: "We need to change the thinking that buildings are just an 'energy sink'. Buildings in the future will play a very proactive role in the whole energy system." That involves storing renewable energy and using "smart building" technology to reduce energy use at peak times to support the electricity supply system.

But he accepts the challenges facing those trying to do the right thing: "If you want to renovate your house you have to shop in a number of different places — a company supplying windows, one supplying the heating system, and so on — and you have to co-ordinate them all. Anyone who has tried it knows how nerve-racking it can be."

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Just good friends: street view of apartment facades in San Francisco's North Beach district — Neil Setchfield/Alamy

San Francisco workers forced into cosy, platonic roomsharing

Residential demand Rising Bay Area rents prompt awkward lifestyle solutions, reports *Hannah Kuchler*

Software engineers in San Francisco specialise in tackling hard problems at work. But many are also facing some tricky maths at home — and having to solve a few social puzzles — to cope with life in the most expensive city in the US and make it pay.

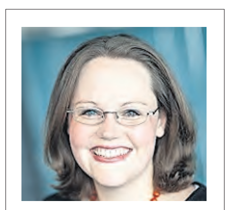
For almost 40 per cent of San Franciscans, coping means sharing their home with roommates, arguing over who gets into the bathroom first, who used the last of the milk and even, in some cases, who gets which half of the bedroom.

The median San Francisco one-bedroom apartment was rented for $3,560 in April, up 2.9 per cent year-on-year, according to rentals site Zumper. Even if people move to nearby San Jose, they will be living in the joint third most expensive city in the US — New York is second, Boston is third — and if they cross the Bay to Oakland, they could be paying the fourth highest rents.

Devin O'Brien, economist at Zumper, says apartments for rent at less than $3,000 are snapped up fast and tenants are often squeezing as many roommates into a place as possible.

"We are seeing a lot of roommate situations in places you wouldn't necessarily expect roommates, two friends in one bedroom, four friends in a two-bed, people who aren't necessarily couples stacking up in properties," he says. "If it costs $3,500, people can't afford to do it alone."

About 39 per cent of adults in San Francisco share with roommates — people with whom they are not romantically involved — according to Zillow, the real estate website, higher than the national average of 32 per cent.



People are willing to deal with high housing costs and do not mind having roommates, says Svenja Gudell

San Francisco's technology industry is a huge draw and a source of well-paid jobs for those who are qualified, but high rents and house prices have meant that even some tech employees are moving to other big cities in the West — from Los Angeles to Austin to Seattle.

"Los Angeles is a big one that has continued to rise over the past couple of years because the rent compared with San Francisco is still relatively cheap, the weather is better and there is a growing tech scene," says Mr O'Brien.

When people consider buying, they are even more likely to think twice about the Bay Area.

The median home costs $1.13m in San Francisco and $866,000 in the broader region, according to data from Zillow. Both rents and mortgage payments are eating into what often look like big pay packets: a median rent in San Francisco would take up 61 per cent of the median income, while a median mortgage payment would be a 57.2 per cent slice.

"We are seeing people move to San Francisco who are entry-level folks willing to deal with high housing costs who don't mind having roommates. It is an exciting place to live, working at Google or Apple or Facebook," says Svenja Gudell, chief economist at Zillow.

A report published in March by the Global Cities Alliance, examining the economic impact of high housing costs, highlights how escalating rents and house prices lead to greater wage demands on employers.

It also notes how money diverted to pay for accommodation can have a deadening affect on other business because of what it calls the "unrealised

About 39 per cent of adults share with people with whom they are not romantically involved

spending" on other goods and services, as well as the impact of social change as lower earners are pushed out of cities.

And in the Bay Area, as in other big global conurbations, some people are voting with their feet. Unless workers advance to the highest earning positions, many will move when they try to buy.

"They worked in San Francisco for a while when they didn't have a family but when they want a bigger house or a little bit of yard, they can't afford to buy in San Francisco," says Ms Gudell. She gives an example of a friend who asked for a pay rise in San Francisco and when his boss said no, moved to Portland to cut costs.

Seemingly incredible salaries in the tech sector are actually much smaller when set against the cost of living in San Francisco, according to a report from Hired, the recruitment start-up.

The average salary of a software engineer in San Francisco is $132,000 but an engineer making $110,000 in Austin, Texas, would need to earn a salary of $195,000 in San Francisco to maintain the same quality of life, according to the report "The State of US Salaries".

This difference is making some companies look outside the Bay Area for cheaper employees, says Mehul Patel, Hired chief executive. "Great talent used to be in just this one giant ecosystem and everything else was really small. But now LA, Seattle, Denver, Boston, and all these markets are becoming viable ecosystems in their own right, with entrepreneurial cultures, venture capital, great universities producing great talent and with a lower cost of living," he says.

Chinese investors reach for the skies of the Windy City

Cross-border investment

Money from China continues to flood into 'gateway' residential markets in the US, says *Neil Munshi*

Units in Chicago's 93-story Wanda Vista Tower went on sale in March. When it opens in 2020, the light-blue structure will be the third-tallest building in a city that prides itself on its skyscrapers. Prices will range from $900,000 for a one-bedroom apartment to $18m for a two-storey, top-floor penthouse.

Inspired by the naturally occurring geometry of fluorite and sapphire crystals, the building will also be the tallest structure in the world designed by a woman, Jeanne Gang.

But it is the money backing the tower that has drawn the most attention: Dalian Wanda, China's largest developer, owns a 90 per cent stake in the project. When he announced the project in 2014, Wang Jianlin, Wanda chairman and China's richest man, said it was "Wanda's first move into the US real estate market."

Mr Jianlin is one of the biggest participants in a rush of Chinese money into the US residential real estate market in recent years. Smaller investors have followed in his wake — including many of the early buyers of apartments at the Wanda Vista Tower, according to Magellan Development, a partner of Wanda on the project.

According to the National Association of Realtors (NAR), Chinese buyers spent $28.6bn on residential US real estate in the year ended March 2015, up nearly sevenfold from $4.1bn in 2010 and far outpacing Canadian buyers, the second biggest group, who spent $11.2bn. Chinese money made up more than a quarter of the $104bn foreigners spent on residential real estate in the US during that period.

"It is really duplicating something that has been going on in the UK for at least 10 years, where people are buying off plan to acquire a flat in a multifamily development," says Tom Kirschbraun, of JLL. "The methods by which money makes its way out of the mainland and into western real estate are innumerable: they are buying single family homes in Orange County and they are buying high-rise units."

The Chinese have tended toward the so-called "gateway markets" — Los Angeles, San Francisco and New York, in particular — that have large, established Chinese populations. California was chosen by 35 per cent of Chinese buyers looking at the US market in the year ended March 2015. The next closest was Washington with 8 per cent, followed by New York, Massachusetts and Illinois.

The buying spree has been driven by a number of factors: soaring property prices in cities such as Beijing and Shanghai have left smaller investors with big windfalls, while a subsequent slowdown has sent larger investors abroad. The recent market turmoil combined with an economic slump has also led Chinese buyers to seek foreign havens — particularly real estate in large markets like New York and Los Angeles. Some have expressed concern that the recent devaluation of the renminbi might curtail Chinese demand. But Jenny Lin, managing broker at Jin's Group in Chicago, says the opposite is happening.

"I know clients who sell one property in Beijing or Shanghai and make huge profits so they can buy one here," says Ms Lin, who deals mainly with Chinese clients in the city. "They are looking . . . to transfer their money out of China because the Chinese currency is so up and down, out of control, there are rumours of a stock bubble and next is the property market."

Her clients, like many Chinese, rent these properties out or buy them to use for themselves in the event that they emigrate. Many also purchase homes for their children studying in US universities. "They [the Chinese] place such a great value on education and a great value on owning real estate . . .[and] the US, because of the strength of its higher education institutions, will continue to be attractive," says Bob O'Brien of Deloitte.

He notes that there seem to have been fewer Chinese-led billion-dollar development deals announced lately compared with previous years. But "the desire to own residential real estate outside of China continues to be strong . . . and I don't think that goes away."

Chinese buyers are opting for more expensive properties than buyers from other countries. The average home purchased by someone from China cost $831,800 in the year ended March 2015, compared with $455,600 for UK residents, $380,300 for Canadians and $460,200 for Indians, according to NAR. Nearly 70 per cent of purchases were all-cash.

The economic slump in China may put a damper on some of those all-cash deals, but Chinese money is going to continue to flow into the US market, says Spencer Levy, of CBRE, especially in the face of prolonged global market turmoil.

"This global volatility is the US's best friend when it comes to foreign capital flows," he says. "China will be drawn here to the US as a diversification play away from Chinese capital as a safe haven."

This desire for overseas diversification of investment and a continued glut of domestic savings are the overriding factors driving Chinese capital to the US, says Mr Levy: "The only thing that will hold it back is if China puts significant capital controls in place to support the value of the renminbi."

A tower called Wanda

High yields add to Germany's popularity overseas

Capital flows

The country's stability and relatively low relative supply of properties increase the attraction of Europe's leading economy, writes *James Shotter*

There was a time when Germany's real estate market lagged behind its European peers. But these days it is booming.

Between 2009 and 2015, the value of property transactions in Europe's largest economy surged from €20.9bn to €132bn, according to property group Savills.

The rise in interest from German investors has been striking — with the value of sales jumping more than fourfold over that period.

But the surge in investment from outside the country has been more dramatic still, increasing by a factor of almost 15 as overseas investors have fallen over themselves to buy German property. In 2009, foreign investors accounted for 19 per cent of total transactions by value; in 2015, that figure had risen to 45 per cent.

There are a variety of reasons for this trend, not least the fact that Germany avoided a property bubble in the run-up to the financial crisis. As the aftershocks from that continue to hurt the European economy, Germany's stability has become more attractive to investors. The country's economy grew at 1.7 per cent in 2015 — not outstanding but above the eurozone average; and at 4.2 per cent German unemployment is the second lowest in the European Union.

"Foreign investors see a safe haven in Germany," says Matthias Pink, head of research at Savills in Germany. "The local economy is pretty stable, unemployment is low, wages are rising and, in the face of worries and uncertainty — whether over the future of the euro or [possibilities] such as Brexit, that stability is becoming even more attractive.".

An additional attraction for investors is that the supply of properties, particularly in the residential market, is failing to keep pace with supply. According to Aberdeen Asset Management, Germany needs to build about 400,000 homes a year to keep pace with demand. In 2014, it built just 245,300 and the influx of migrants into Germany over the past year is likely to put more pressure on demand.

"Low construction activity relative to population growth means there is a demand/supply imbalance, particularly in metropolitan areas across Germany," said Fabian Klingler, head of direct property at Aberdeen, which launched a German property fund two weeks ago.

Rogier Quirijns, a portfolio manager at US investment group Cohen & Steers which has stakes in a number of German property companies, takes a similar line. "Building rates, especially for residential property, remain quite low. I do not believe the government will change this by stimulating home ownership in a more active way — at the moment supply is quite tight," he says.

The third factor fuelling the boom in German property prices and investment volumes is the low interest rate environment, which makes financing property acquisitions in Germany much cheaper. It also makes the yields on German property seem even more attractive. The typical yield on German residential property is around 4.5 per cent, and on retail property around 6 per cent. By contrast, investors buying Bunds with a maturity of less than seven years currently have to pay for the privilege of lending to the German government.

Berlin block of flats — Sean Gallup/Getty Images

German property yields are also attractive in comparison with rival European destinations, says Mr Pink. "In London and Paris, prices are already very high and yields are low. Paris is completely bought up," he says. "For investors who don't like this, German cities are a logical place to look for alternative investment opportunities."

According to data from Savills, the biggest investors are still the US and the UK, particularly in commercial property and offices. France is the biggest investor in residential property.

The fastest growth, however, has been among Asian investors, whose spending increased almost 17-fold from just €216m in 2009, to €3.62bn last year.

The bulk of the investment in 2015 — €29.8bn of the €59.6bn spent by foreign investors — was into commercial property, and foreign investors were particularly active in the office and retail markets. The residential market remains a more German affair: foreigners accounted for just 13 per cent of transactions by value in this market last year.

Most of the money has been aimed at five big cities: Berlin, Munich, Hamburg, Frankfurt and Düsseldorf. However, as the surge of investment pushes up prices in these cities, investors are likely to look further afield, says Mr Quirijns.

"In Berlin, it has got to the stage where you have to be an insider to find the right deals, which is why we have relatively large stakes in Deutsche Wohnen and ADO Properties," he says, referring to two big German property groups. "Some foreign investors will still enter the German residential market by moving up the risk curve and investing in regions where the demographics aren't quite so strong."

Such trends are pushing up prices. But as long as Germany's economic fundamentals remain strong, and interest rates low, the real estate market in Europe's largest economy is likely to continue to attract foreign investors.

"German residential property is not cheap any more, but it is still cheaper than Paris or London," says Mr Quirijns. "Paris is expensive, with lower rental growth. Germany is less expensive and if you can find well-located assets it is possible to make very good returns."