



IMPACT OF THE COVID-19 CRISIS ON EUROPEAN LISTED REAL ESTATE

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EXECUTIVE SUMMARY

Expect elevated volatility until the economic impact of the crisis is clear

- European real estate stocks suffered sharp falls in Q1 as COVID-19 fears rattled investors. They have since staged a muted recovery, but the sector is now trading at a discount to net asset value (NAV). That said, it is important to recall that listed real estate prices react in real time to market conditions while shocks to underlying private real estate valuations are only revealed over time as a result of reporting lags.
- Investors tend to ascribe higher NAV premiums to listed real estate stocks with low leverage. Listed real estate companies in Europe have been actively improving their debt profile in the last decade since the global financial crisis (GFC), by reducing leverage, increasing the proportion of fixed-rate debt and reducing their current liabilities. Other things equal, this should improve the resilience of this asset class during the current downturn.
- But we would caution that the crisis will inflict substantial economic damage across Western Europe, as entire sectors of the economy are being shuttered or forced to operate at a fraction of normal capacity. Output losses will be significantly greater than the GFC over a oneyear timeframe. This has negative implications for the performance of property assets that underpin listed real estate prices.

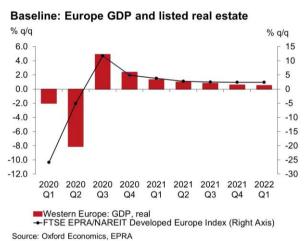
Rebound anticipated in H2, but risks skewed to the downside

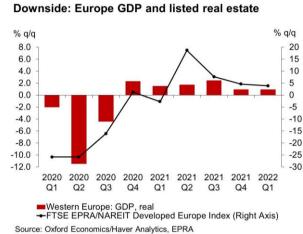
- The extent to which different sectors of the economy can bounce back will depend on the pace of easing of lockdown restrictions. This in turn will help to determine the near-term health of associated commercial real estate assets. Evidence from China indicates that individuals have returned to work, but they are more reluctant to undertake nonessential visits to recreation areas.
- The knock-on impact to employment and incomes from the crisis will also influence the near-term outlook for the performance of listed real estate companies with exposure to residential property. The sector is currently displaying resilience, but this may give way to increased lease defaults and price declines as government job retention schemes are wound down. This downturn could be short-lived, however, given interest rates at record lows and a shortage of homes across Europe.
- Our baseline forecasts assume a relatively optimistic 'V-shaped' economic recovery. This would be consistent with the FTSE EPRA Nareit Developed Europe Index¹ recovering to pre-crisis levels in 2022.

¹ The FTSE EPRA Nareit Developed Europe Index is a subset of the FTSE EPRA Nareit Developed Index and is designed to track the performance of listed real estate companies.



- Notwithstanding the likelihood of near-term volatility, this outcome could still be attractive for investors with long enough time horizons.
- ❖ But risks to the economy and implications for real estate assets are heavily skewed to the downside. A more pessimistic downside scenario could see a steeper near-term contraction and a more prolonged and incomplete recovery. The hit to listed real estate would be substantial in this scenario, with the FTSE EPRA Nareit Developed Europe Index estimated to be around 35% below its pre-crisis peak even in 2022. We believe a cautious investment stance is therefore warranted.





The crisis may also cause permanent changes affecting real-estate usage

- The crisis may also entail lasting changes to how people live and work, with implications for real-estate performance over a longer timeframe. For example, it may call into question the trend of densification in both housing and offices, albeit the impact on the latter may be partly offset by new public health regulations ensuring greater square footage per person. Headwinds facing the retail sector may also strengthen, as new cohorts of society have been introduced to e-commerce during the crisis, which will accelerate the trend toward online shopping.
- Equally, the post-crisis landscape could be characterised by higher demand for alternative real-estate sectors, such as industrial (which may benefit from onshoring of production), warehousing/storage (a beneficiary of growing e-commerce) and data centres (which benefit from increasing use of online services).

But the long-term investment case for listed real estate remains intact

• We are currently experiencing an unprecedented shock to the economy that will affect all asset classes. But this crisis is not a longterm 'game changer' that will undermine the fundamental attractiveness of real estate as an asset class over the long term. It will



- still offer attractive characteristics including stable cash flows, competitive risk-adjusted returns, and a hedge against inflation.
- Equally, listed real estate will remain an attractive vehicle for obtaining exposure to a diverse range of sectors and geographies without the need to own, operate, or finance properties. Crucially, this crisis does not undermine the conclusions of our previous research demonstrating that a substantial allocation to listed real estate can enhance the risk-return characteristics of a multi-asset portfolio.



1. INTRODUCTION

The COVID-19 pandemic has rattled investors, prompting a broad-based sell-off in equity markets that has sent the price of European listed real estate companies sharply lower. Stocks have regained some lost ground more recently, amid some welcome news in terms of the coronavirus spread and stimulus measures. But the path to the end of lockdowns remains unclear and the ultimate impact on listed real estate will be driven by the economic damage/recovery, longer-term shifts in key drivers and implications for underlying private property markets.

In light of the uncertain outlook, this report provides an independent assessment of the outlook for the European economy and implications for listed real estate companies in the region. The report is organised as follows:

- Section 2 describes two alternative scenarios for the economy of Western Europe and an assessment of the policy response in the region.
- Section 3 compares the recent performance of European listed real estate with past crisis episodes and examines the outlook in light of alternative economic outcomes.
- Section 4 presents a short conclusion



2. GAUGING THE ECONOMIC IMPACT OF THE CRISIS

2.1 THE LARGEST RECESSION IN POST-WAR HISTORY

Widespread lockdowns and social distancing in economies affected by the coronavirus outbreak are set to cause a massive negative short-term impact on economic activity. While hard data is only gradually becoming available, survey evidence in recent weeks confirms that a dramatic contraction in activity is well under way in the affected economies, especially in services industries requiring face-to-face interaction.



Fig. 1. Surveys indicate a record collapse in output

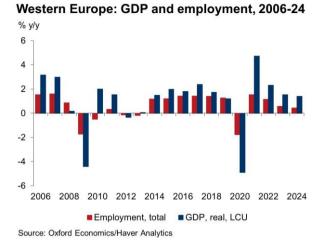
We expect GDP in Western Europe to contract by over 10% in H1 as lockdowns and travel restrictions lead to large falls in production and discretionary spending and associated economic activity. Very few sectors have been fully isolated from the crisis, but the most sensitive sectors to the sudden stop in non-essential activity have been restaurants and bars, hotels, recreation services, transportation services, and discretionary spending on motor vehicles, clothing, and non-essential medical services. That said, there has been upside for a few industries – for example, supermarkets are benefiting from people staying home rather than dining out, while warehouses are benefitting from more online sales.

Our baseline forecast assumes lockdowns ease soon...

Key to the timing and speed of a subsequent economic recovery will be when and how existing lockdown restrictions are relaxed. Our central forecast is for a strong bounce back in H2 as social distancing measures are lifted and policy stimulus feeds through. Some European countries are already now gradually re-opening their economies, although we are still far from normality and some economically damaging social distancing measures will likely be maintained for some time. Indeed, it is likely to take months to fully gauge the scale of the crisis and determine the eventual path of the recovery.



Fig. 2. Output should bounce back strongly



... but an uneven recovery across sectors has implications for real estate

The extent to which individual sectors can bounce back will help to determine the near-term resilience of associated commercial real estate. There is ample evidence from China, for example, that non-essential activities that may be risky for health have picked up more slowly than other forms of activity deemed essential, such as going to work. Likewise, the knock-on impact to employment and incomes will influence the outlook for residential real estate markets (discussed in more detail within the Special Focus box at the end of this Chapter). And the longer the crisis persists, the more likely it will result in permanent, transformative changes affecting real-estate usage, such as calling into question the trend of densification in both offices and housing.

Fig. 3. Hospitality, recreation and transport will be hardest hit

■2020 ■ Average Annual Growth (2021-23) Health & social care Info & comms Mining & Utilities Public admin & Education Financial & professional services Administrative services Agriculture Real estate Other services Construction Wholesale & retail Manufacturing Transport & storage Arts, ent. & recreation Accom & food services -18-16-14-12-10 -8 -6 -4 -2 0 2 4 6 8 % y/y Source: Oxford Economics

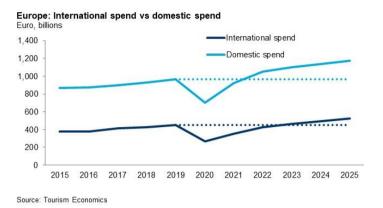
EU: Gross value added

Few sectors have been harder hit by this crisis than tourism and it is likely to be one of the slowest to recover, as many will avoid non-essential travel for some time or be restricted from travel. Although nearly 90% of hotels have now reopened in China, for example, most are reporting occupancy rates of below 30%. Indeed, we expect associated spending levels will only climbing back to 2019 levels after around four years, meaning the hospitality sector will remain



under pressure with elevated bankruptcy risk even after containment measures are lifted. Domestic travel is expected to recover more quickly than international travel, however, meaning the characteristics of an individual hotel's clientele (or its ability to adapt) will help to determine near-term prospects.

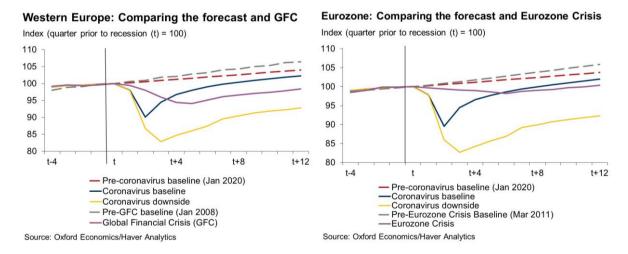
Fig. 4. Tourism will take four years to recover to 2019 levels



Risks are skewed to the downside, especially in the medium term

The medium-term growth outlook also remains a key source of uncertainty. Historic evidence suggests that economies can bounce back after large shocks, but significant output losses have also endured in a number of cases. For example, deep and lengthy recessions in the 1970s and 1980s saw 'hysteresis' effects whereby sharp rises in unemployment and business failures cast long shadows over several years.

Fig. 5. Comparing COVID-19 with previous crises



And recessions involving financial crises are well-known for being followed by weak recoveries. Most recently, the bursting of housing bubbles in the US and in several European countries including the UK, Spain and Ireland undermined the health of the banking sector, resulting in the global financial crisis (GFC). Forced deleveraging by banks caused a sharp retrenchment in the supply of credit to the economy and the episode resulted in long-lasting capital and productivity shortfalls relative to pre-crisis trends. As shown in Figure 5, the



GFC resulted in medium-tern GDP losses in Western Europe of around 7.5% relative to the levels we had anticipated before the crisis.

Moreover, economic activity in the Eurozone subsequently weakened again from late 2011 as the debt crisis enveloped the region. This was a balance-of-payments crisis in several Eurozone member states (Greece, Portugal, Ireland, Spain and Cyprus), which were struggling to refinance their government debt or to bail out over-indebted banks. Permanent medium-term GDP losses subsequently amounted to a further 4.5% relative to pre-crisis trends.

It will thus be important for policymakers to take steps to reduce adverse spillovers and second-round effects from the shutdowns to keep these costs to a minimum. Our baseline forecasts envisage fairly moderate medium-term output losses resulting from the COVID-19 crisis, in part reflecting rapid and largescale policy interventions and a quick rebound in H2. We expect Western European GDP in the medium term to be about 1.5% below the levels we had anticipated before the outbreak.

A pessimistic outcome could see more irreversible economic damage

But there also remains a significant risk that lockdowns need to be extended if the pandemic is not brought under control, or a second wave of infections leads to them being reinstated. This would lead to a sharper downturn in the near term as well as more permanent, long-term damage to the economy.

Our downside scenario models such an outcome. The economy of Western Europe would enter a deep and protracted recession, compounded by a worsening of financial conditions as swathes of companies are forced to default on loans. Government debt would also reach unsustainable levels in many countries, forcing the introduction of austerity measures. Further breakdowns of global supply chains would cause lasting economic dislocations. Beyond that, scarring effects on firms and households could lead to more cautious behaviour and thus weaker investment and household spending than pre-virus norms. The resulting destruction of productivity sets GDP on a lower path, around 9% below the levels we had anticipated before the outbreak.

Any potential upside to the economy appears limited

On the upside, faster progress on developing a vaccine or other medical developments could lead to a quicker return to the path for global GDP anticipated prior to the crisis. However, we view this as a relatively low-probability outcome with limited upside for the economy relative to our baseline projections, so we do not consider this in detail in this report.

2.2 THE EUROPEAN POLICY RESPONSE

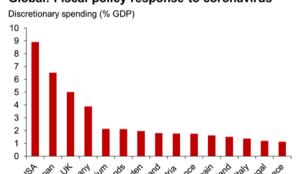
The medium-term growth outlook is highly uncertain and much depends on the policy response – a strong and well-designed response could contain the medium-term output losses, but large and enduring damage is a risk. While the ECB and other central banks in the region have launched a huge expansion of their QE programmes and measures to ensure bank liquidity, the focus is now on fiscal policy to provide more targeted measures.



Huge government guarantees seek to ensure business liquidity...

National governments have launched fiscal packages of various sizes, with the UK and Germany going the furthest so far in Europe. The immediate focus has been on stopping bankruptcies, via policies such as loan guarantees and targeted support for badly affected sectors, as well as containing the rise in unemployment in order to prevent permanent economic scars. To achieve the latter, Germany's *Kurzarbeit* scheme, which subsidises workers' salaries while activity is reduced or put on hold, has been widely copied by other European countries.

Fig. 6. Discretionary fiscal spending in response to the crisis



Global: Fiscal policy response to coronavirus

Source: Oxford Economics/Haver Analytics

... but many landlords are being squeezed by these new policies

Several European governments have also introduced emergency policies aimed at the real estate sector, mainly with the aim of lessening the impact on commercial and residential tenants. A number of countries have introduced mortgage and rent holidays, for example, while evictions have been suspended in the UK, Germany and France. To avoid the burden falling entirely on landlords, some governments have extended support to the sector and banks are being urged to provide forbearance on loans.

More spending, not just credit, will be needed...

Such schemes should help limit the hit to employment, ease liquidity pressure on firms, and help reduce the damage to consumer confidence. That said, most of the fiscal support so far announced by European countries has been in the form of credit guarantees, which will not immediately stimulate economic activity, unlike infrastructure spending, or cash transfers. Moreover, guarantees alone may be insufficient to support companies in the worst affected sectors, where solvency will quickly become an issue. Increasing the Eurozone's average discretionary fiscal spending response of just 1.9% of GDP will therefore be vital to ensuring the bloc's economy emerges from the lockdown in a position to recover quickly.

Indeed, the scale of the European policy response has lagged well behind some other major economies. Notably, the US has adopted almost \$2 trillion of



additional spending² equivalent to almost 9% of 2019 GDP, which includes expanded unemployment insurance and direct payments to households. And Japan has agreed new spending amounting to around Y38.1 trillion (6.9% of 2019 GDP), which includes financial support for firms as well as direct cash transfers to households.

... which could present another 'stress test' of political unity

Some European governments have already hinted that they will ramp up spending, with the required response ultimately depending on the length of containment and the pace at which economic activity can resume – both still highly uncertain. The scale of the fiscal response to date is a particular concern for the peripheral Eurozone economies, where activity has been hit hard by the crisis in H1. But these countries entered the crisis with relatively weak fiscal positions and despite their comparatively moderate policy response to date, their government bonds are already experiencing a widening yield differential relative to German government bonds.

This emphasises the need for a common EU fiscal response to ensure no one is left behind during the recovery phase. This will ultimately be another test of political will in Europe – without European solidarity and burden-sharing in the face of this crisis, there is a risk that this ultimately leads to an unravelling of the Eurozone and the EU.

² At the time of writing, additional significant US fiscal stimulus measures contained in the HEROES Act were also under discussion. These measures are not included in our estimates.



SPECIAL FOCUS: RESIDENTIAL PROPERTY MARKETS IN EUROPE

The residential property sector represents a significant and growing share of European listed real estate, accounting for over 25% of the property portfolios that currently underly the FTSE EPRA Nareit Developed Europe Index. With the aftermath of the GFC continuing to influence housing markets over a decade later, investors are understandably worried that we may be on the cusp of another sharp correction in home prices.

In many parts of Europe, low interest rates fuelled strong growth in house prices over the past few years. But **the residential property market is now virtually at a standstill in many countries as lockdown restrictions hinder or prevent sales**. With transaction levels having plummeted, it will be some time before the knock-on impact to property prices becomes clear.

Many European governments and/or banks have announced mortgage payment holidays, which should help to limit an increase in forced sellers in the near term. Suppressed transaction activity should also imply some build-up of latent demand. But it is unlikely that these 'lost' sales will be quickly or fully recouped after restrictions are lifted, as any return to normality will be gradual at best. General uncertainty may be expected to weigh on consumer sentiment for some time and the negative impact on earnings and employment (a significant risk when furlough schemes end) is likely to reduce overall demand for housing and result in forced sales when property markets reopen.

It is therefore reasonable to expect that the economic downturn will test current price levels across Europe. But a wide dispersion in performance of national markets complicates the analysis. For example, the recent boom in (inflation-adjusted) house prices has been particularly strong in Germany, Sweden and Switzerland. In contrast, house prices in Spain and Italy remain well below 2007 levels.

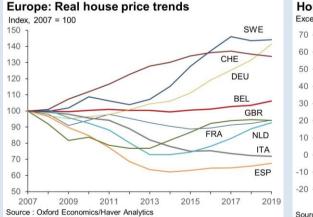
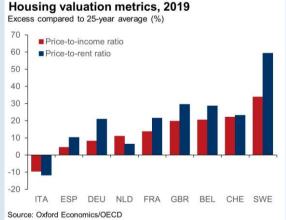


Fig. 7. Recent developments in house prices



The risk of a housing correction may be considered greatest in markets where valuations were already stretched leading into the crisis. One valuation measure is the price-to-income ratio, as changes in disposable income are a major determinant of housing demand and affordability. Valuations in Sweden appeared particularly stretched on this measure, with the average price-to-income ratio around a third above its long-term



average. Implied overvaluations are also significant in a number of other countries, averaging around 20% in Switzerland, Belgium and the UK.

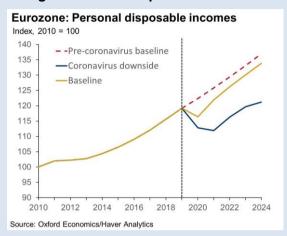


Fig. 8. Personal disposable incomes

Another metric that is often used for assessing imbalances in housing markets is the price-to-rent ratio, which measures the profitability of owning a house. Estimated valuation gaps are generally larger on this measure, but this is often caused by distortions in domestic rental markets. In particular, rental markets in France, Germany and Sweden are heavily regulated, which limits the upward adjustment of rents even when housing demand increases.

There is also an important sub-national component to the distribution of housing market developments. In particular, the ongoing trend toward urbanisation coupled with rising demand for top locations has seen prices rise especially fast in major European cities. The Annual UBS Global Real Estate survey warned of overheated residential property markets in a number of cities across the Eurozone at the end of last year. Munich, Frankfurt, Amsterdam and Paris were identified as having unsustainably high property prices.

The housing market upturn is in a relatively advanced phase in many European countries compared with the average duration of such upturns. While the outlook is uncertain, developments will depend crucially on the health of the economy and associated employment and income prospects after the lockdown. Importantly, with the banking sector stronger in terms of liquidity and capital than in 2008 and 2012, and central banks providing large-scale monetary support, this should mean that a credit crunch is avoided. Nevertheless, some price declines seem inevitable even in our baseline scenario given anticipated declines in personal disposable incomes. Rents will also move sideways for a while given the tendency to move with incomes. This will erode the fundamentals supporting listed real estate valuations in this sector.

Assuming long term damage to the economy is contained, the sharp rebound in economic activity envisaged in our baseline projections suggests that negative impacts on house prices (and rents) should therefore be relatively short-lived. With a shortage of new homes across Europe and interest rates at record lows, this could set the foundations for a recovery in housing activity next year.

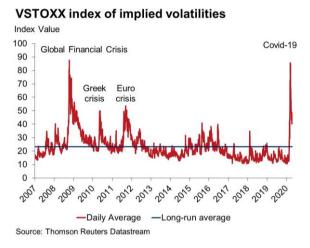


3. IMPACT OF THE CRISIS ON LISTED REAL ESTATE

3.1 BENCHMARKING TO PREVIOUS CRISIS EPISODES

COVID-19 developments have unleashed a tremendous surge in stock market volatility that has rivalled or even surpassed levels last seen in December 2008 at the height of the GFC. Such was the extent of the recent turmoil that "circuit breaker" mechanisms were triggered in a number of markets, whereby trading was temporarily paused on individual stocks to reduce panic selling.

Fig. 9. Initial surge in volatility rivalled the GFC



Equity market declines have been rapid and deep...

The broad STOXX Europe 600 total return index fell by 35% from its peak on 19th February to the recent trough on 18th March. In fact, valuations have fallen into bear market territory at the fastest pace in history, albeit these falls have been similar in scale to other crises of recent years. For example, the STOXX 600 total return index experienced a 33% decline during Q4 2008, while the Euro STOXX total return index underwent a 29% peak-to-trough decline in 2011, the worst phase of the eurozone crisis.

The recent sharp declines in stock markets largely reflect the (expected) damage to the economy from travel restrictions, social distancing mandates, and other containment policies. Indeed, the activity shortfall across Western Europe – the sum of activity lost every quarter relative to its pre-coronavirus trend – is likely to be significantly greater than the GFC shock over a one-year timeframe.

... and listed real estate has not been immune to the crash

Although listed real estate is generally not highly correlated with traditional asset classes over long time horizons, correlations between all risky assets tend to rise at times of heightened volatility, especially when increased systematic risk results in broad-based declines in equity markets. Moreover, the property sector is also exposed to the general economic environment. It is



therefore not surprising that the performance of European listed real estate has closely mirrored the broader equity market in recent weeks.

Fig. 10. Listed real estate performance in previous crises



Health of the property sector determines relative performance

A similarly close correlation in performance between listed real estate and the broader stock market was also observed during the early stages of the GFC in Q4 2008 (Figure 10). But a gap in performance had opened by late 2008, with listed real estate underperforming the broader market, which was reflective of the sector's overly aggressive use of debt in preceding years and the central role of the real estate market in the crisis. Movements in listed real estate also closely followed the broader stock market throughout much of the Eurozone crisis, but a positive gap in performance subsequently opened when the recovery phase unfolded.

Fig. 11. Balance sheets of listed real estate companies



The performance of listed real estate during these previous crisis episodes underscores how the drivers of the downturn and health of the real estate market were key determinants of subsequent performance. With this in mind, it is notable that listed real estate companies in Europe have been actively



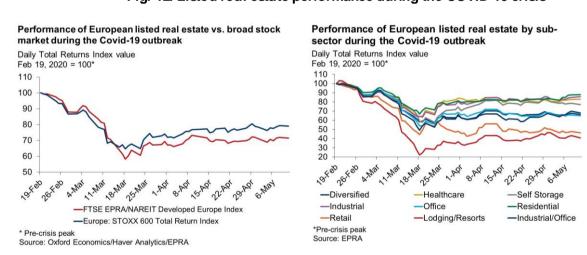
improving their debt profile in the last decade by reducing leverage, increasing the proportion of fixed-rate debt and reducing their current liabilities (Figure 11). Other things equal, this should improve resilience during the current downturn and provide solid foundations for a subsequent rebound.

A number of higher-rated listed real estate companies have also recently raised additional financing from debt and equity markets, amidst a broader "dash for cash" amongst companies around the world. It is notable that companies in the sector still currently have market access and can secure liquidity, whereas issuance largely ground to a halt during the GFC. This additional capital will bolster their ability to weather the drag on revenues from the economic downturn.

Markets have discounted the hardest-hit sectors

That said, different types of real estate can be affected very differently during a recession and its aftermath. This is reflected in the performance of sub-indices for lodging and retail, which have experienced especially sharp peak-to-trough declines during the current crisis (Figure 12). While these sectors have continued to languish, other real-estate sectors have outperformed the broader market. For example, industrial, residential and healthcare sub-indices are now all less than 20% below their pre-crisis peaks.

Fig. 12. Listed real estate performance during the COVID-19 crisis



Geographic exposure is an additional variable that can influence performance of listed real estate stocks, reflecting differences in national and sub-national economic performance as well as the characteristics of real estate markets. For example, the incidence of deferred rent payments on commercial properties has to date been relatively higher in the UK than in much of Continental Europe, which could reflect that in some countries (e.g. Germany) landlords can charge high rates of interest on delayed payments.

Economic outlook remains the key uncertainty

A summary of the various factors influencing the performance of listed real estate is provided in Figure 13, with the experience of the GFC also included as a benchmark. Broadly, this shows that European listed real estate companies, and property markets more broadly, are in much better shape than at the time



of the GFC, with more conservative debt levels. Banks have also deleveraged significantly and have access to large-scale monetary support, which lowers the risk of an imminent credit crunch. That said, it is still too early to accurately gauge the full depth and duration of this economic downturn.

Fig. 13. Comparing the COVID-19 crisis and GFC

Sector	Global Financial Crisis	COVID-19 crisis
Equity mark ets	Peak-to-trough decline of 75% in STOXX 600 over a two-year period. Equities bounced in November 2008 when support measures were announced, but subsequently traded to new lows in March 2009.	Fastest decline of stock markets in history. STOXX 600 was down by 35% by mid-March. The market has since rallied on news of government support and slowing death rates. But prices appear detached from underlying fundamentals.
Listed real estate balance sheets	Aggressive use of debt left many companies exposed to the downturn and tightening of credit conditions.	Companies have reduced leverage, increased their share of fixed-rate debt and lowered current liabilities. With interest rates low, this reduces financial pressures from debt servicing.
Property mark et	Both commercial property and residential real estate prices had increased to unsustainable levels prior to the crisis, fuelled by a sharp rise in debt.	Some evidence of over-exuberance and stretched valuations in certain markets prior to the crisis, but not to the same extent as the GFC. Debt levels are also more conservative than the GFC. This reduces the risk of a crash in the property market.
Banking sector	Banks found themselves severely undercapitalized and holding insufficient liquidity amid a crisis in funding markets. Availability of loans to the economy was severely curtailed.	The banking sector is stronger in terms of liquidity and capital than in 2008 and 2012.
Policy response	Lack of coordination at the European level delayed implementation of effective remedies for the causes of the financial crisis. The EU continued to enforce its fiscal austerity program, undermining the recovery.	Rapid response from central banks and governments to support banks and keep companies afloat. But actual new fiscal spending measures to date are limited and a lack of solidarity has precluded a common EU fiscal response.
Economy	European recession lasted five successive quarters and subsequent recovery was sluggish, hindered by tight credit conditions.	Economic losses will be greater than the GFC over a one-year timeframe. Medium-term outlook highly uncertain.



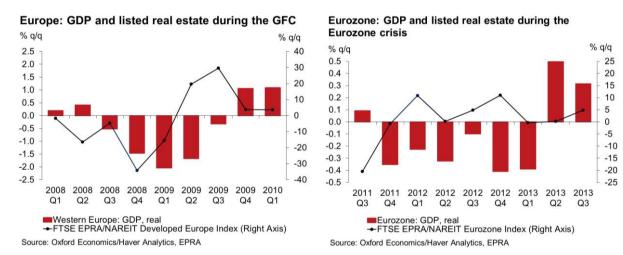
3.2 OUTLOOK FOR EUROPEAN LISTED REAL ESTATE

The opening up of cheaper valuations in listed real estate inevitably raises the question about whether now is a good time to re-enter the market. Conventional wisdom is that "bear markets die on bad news" and selling will stop when the full extent of the potential economic damage is priced into stocks, even if current conditions remain bleak. A bottom does appear to have formed in equity markets in mid-March, with a tentative recovery unfolding in recent weeks as data has shown coronavirus deaths slowing and some governments having made early moves to reboot their economies.

Investors are struggling to understand the fallout from this crisis

Markets are forward-looking, so share prices of listed real estate companies tend to move around six months ahead of (expected) developments in both the economy and underlying real estate values. This forward-looking characteristic of markets was evident during both the GFC and Eurozone crisis, with realestate stocks peaking well before the peak in the economy, but also bouncing back before the recovery in activity levels (Figure 14). Still, the unprecedented nature of the current situation, and its rapid development, means investors are still struggling to understand the ultimate impact on the economy.

Fig. 14. Stocks tend to move ahead of the economy



Equity valuations may appear "cheap" today ...

At a fundamental level, stock prices should reflect their underlying real estate asset values in the long run. For listed real estate companies, net asset value (NAV) is therefore a commonly used metric for making investment decisions. On this measure, valuations for diversified holdings were moderately higher than the long-run average prior to the crisis, but the sector is now trading at a significant discount to NAV. This could ostensibly represent good value to investors, especially relative to private-market property.



Europe: Listed real estate premium/discount to NAV

FTSE EPRA NARIET Developed Europe Index
% premium/discount to NAV

80
60
40
20
0
-20
-40
-60
-80

Paedding Reeds and Bernard Reeds and Berna

Source: EPRA

Fig. 15. Stock valuations have been compressed recently

... but do not account for the impact on private property assets

On the other hand, it is worth noting that listed real estate valuations remain, on average, more expensive than their 2008 lows. And valuations that appear low today relative to trailing rental profiles and current private property prices may no longer seem cheap when the full impact of the crisis on the real estate market is realised. Indeed, the impact on private property can only start to become apparent when the current paralysis of leasing and investment markets ends.

Looking forward, we would caution that the ultimate widening of risk premia will be driven by the economic damage, not by the welcome drop in COVID-19 fatalities, which is a key risk factor that market volatility measures have been pricing to. A drop in global fatalities does not necessarily mean that the return to normal life will be swift. Indeed, the path to the end of lockdowns remains unclear and the economic damage will be substantial. Although risk measures such as the VSTOXX have fallen from their peak, they remain well above long-term averages, and experience from the GFC suggests that they could spike higher again once the full extent of the economic damage becomes clear, as they did in late 2008.

The market may not therefore have found its 'ultimate' bottom

Equity market positivity has already ebbed in recent days as corporate earnings from a few larger companies have been revealed. We feel stocks will come under increasing pressure as earnings downgrades gather pace – in previous bear markets, equities did not find their ultimate bottom until the pace of consensus downgrades slowed. It is unlikely that listed real estate will escape any renewed sell-off, especially as real-estate firms are also being forced to cut or suspend dividend payments to shareholders to preserve cash. March lows for listed real estate prices could therefore be surpassed in coming weeks.



Fig. 16. Impact of the crisis on European real estate sectors

Real estate sector	Pre-crisis outlook	Short term impact of the crisis (1-2 years)	Longer-term impact of the crisis (3+ years)	Impact relative to pre-crisis trend
Residential	Multifamily residential sector delivering a favourable return profile, with increasing demand and supply shortages in major European cities. Growth in non-EU students supporting rising demand for student accommodation.	Residential is currently displaying resilience, although this may soon give way to increased lease defaults as government job retention schemes are wound down. Student housing also under pressure as students educate remotely.	Increased home-working may dampen urbanisation rates and associated growth of housing demand in major cities. Online education could be more widely embraced, reducing demand for student housing. International mobility may also be constrained for an extended period.	SLOWER GROWTH
Retail	High street rental values in most cities under pressure as e-commerce claims a growing share of sales revenue.	Discretionary spending has been hard-hit and likely to recover only gradually (with a high share moving online). But non-discretionary stores such as supermarkets are currently benefitting.	The crisis may hasten the long- term decline of brick-and-mortar stores, with the rise of e- commerce being accelerated.	SLOWER GROWTH
Office	Generally positive outlook with vacancy rates in many major cities at their lowest levels in 15 years. But some concerns of 'overheating', with prime office yields at low levels.	Flexible offices more at risk in near term than core long-leased offices. Sector should fare better than average (as they are better suited to home working), although many tenants asking to cut or defer rent payments.	Longer-term, increase in home- working may dampen demand for office space. A potential offset may be a reversal of the densification trend as public health concerns demand greater square footage per person.	SLOWER GROWTH
Industrial	Healthy demand, with warehousing in particular benefitting from growth of e-commerce.	Supply chain disruptions and weak demand will weigh on manufacturing activity and lower demand for industrial real estate. But warehousing has benefitted from accelerated growth in ecommerce.	More positive longer-term outlook as the sector benefits from tailwinds including reshoring of manufacturing capacity and a shift away from 'just-in-time' supply chains. Warehousing will also benefit from faster growth in ecommerce.	FASTER GROWTH
Healthcare	Retirement living benefits from ageing populations and wealth of over-65s. Strainson public finances also mean that private healthcare is more widely used.	Reduced demand for non- essential medical procedures during the economic downturn. But private facilities in some countries are being used by government.	Outlookremains positive, with governments viewing the sector as essential infrastructure.	NEUTRAL
Self-storage	Growth supported by mobility of workforce and increased adoption of micro-apartments in cities.	Generally a more recession- proof sector.	Slower rate of urbanisation represents a potential headwind to the sector. But Europe's self storage sector remains undersupplied.	NEUTRAL
Lodging	Growing demand and shortage of hotel capacity allowing for healthy revenue growth prospects.	Travel and tourism has plunged and volumes will recover only gradually after travel restrictions are lifted.	International tourism flows are likely to take 3-4 years to recover to pre-crisis levels, leaving permanent scarson this sector. Markets with a low share of domestic tourism are likely to be most at risk.	SLOWER GROWTH



The crisis will also have lasting sectoral implications

As the ultimate impact on the economy becomes clearer to investors, market pricing will increasingly reflect differential effects of the crisis on real-estate sectors. As summarised in Figure 16, the crisis will not only influence near-term activity levels, but will also entail lasting changes to how people live, work and invest. This may raise new questions around future demand for traditional core real estate assets in the office and retail sectors, for example, reflecting how the crisis has encouraged the digitalisation of work practices and encouraged new cohorts of society to use e-commerce (accelerating the trend toward online shopping).

Equally, the post-crisis landscape could be characterised by higher demand for alternative sectors such as data centres (which will benefit from increasing use of online services), warehousing/storage (a beneficiary of accelerated growth in e-commerce) and industrial (which benefits from a likely shift away from 'just-in-time' supply chains aimed at increasing resilience of manufacturing production).

Recovery of values to pre-crisis highs may take time...

We are in unchartered territory, which makes any projections for the future path of listed real estate subject to a high degree of uncertainty. Nevertheless, we have used the Oxford Global Economic Model to map out two possible scenarios consistent with our alternative views for the economy of Western Europe (details on the Oxford Model are provided in the Appendix).

As illustrated in Figure 17, our baseline scenario envisages some renewed downward pressure on listed real estate in the near term, as the crisis precipitates lease defaults, unpaid rents, rising vacancy rates, and downward pressure on property values. But a more sustainable recovery should unfold later in the year as COVID-19 is contained and economies re-opened. Our simulations suggest that the FTSE EPRA Nareit Developed Europe Index would only approach pre-crisis levels in 2022, reflecting the legacy of the crisis. Nevertheless, this outcome could still be attractive for investors with long enough time horizons.

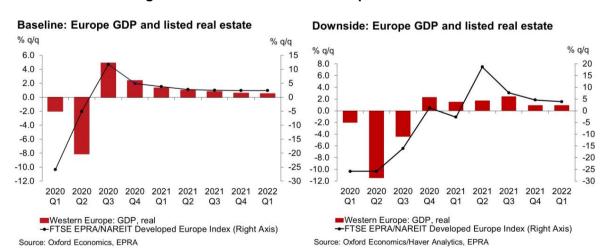


Fig. 17. Alternative futures for European listed real estate



... and downside risks are substantial

That said, outcomes for listed real estate would be significantly worse in our downside scenario for the economy. In this scenario, equity markets and broader financial conditions do not find their trough until 2021 when it is clear that improvements in fundamentals are finally feeding through to earnings and corporate balance sheets more generally. This scenario is more likely to be associated with a crash in both residential and commercial real estate, as more businesses go bankrupt and there is a large and persistent increase in unemployment. The hit to listed real estate would be substantial, with the FTSE EPRA Nareit Developed Europe Index estimated to be around 35% below its pre-crisis peak even in 2022.

The longer-term investment case for listed real estate remains intact

We do not think current market valuations account sufficiently for these downside risks and so we believe a cautious stance is currently warranted. That said, timing the bottom of the market is impossible. With market movements biased towards near-term earnings expectations, long-term investors would therefore be best advised to consider prospects on a time horizon in line with their investment horizons and attitudes to risk.

Indeed, the current volatility in markets does not undermine the longer-term investment case for listed real estate. We believe institutional investors in the region remain underweight in this asset class, which continues to offer attractive risk-adjusted returns that are only moderately correlated to other asset classes over long investment horizons. In fact, with interest rates expected to remain lower for longer, the current environment strengthens the conclusion of our previous research³ showing that a strategic allocation to listed real estate can enhance the performance of a multi-asset portfolio for a European investor with a long-term horizon.

³ Oxford Economics (2019), "Listed real estate in a multi-asset portfolio: A European perspective", EPRA Market Research Paper



4. CONCLUSION

Following a period of panic-selling in equity markets, prices for European listed real estate companies have recently staged a muted recovery. But volatility remains elevated and we would caution that renewed selling pressure is likely as the full extent of the economic damage from the crisis and the resulting impact on property markets becomes apparent.

Even an optimistic scenario where COVID-19 is contained and European economies quickly re-open would likely be associated with a rise in vacancy rates, as well as downward pressure on both rents and property values in the near term. Our simulations suggest that the FTSE EPRA Nareit Developed Europe Index would recover toward pre-crisis levels in 2022, however, which could be a positive outcome for investors with long enough time horizons.

Conversely, a more pessimistic downside scenario for the economy would precipitate a crash in both residential and commercial real estate markets, as more businesses go bankrupt and there is a large and persistent increase in unemployment. In this scenario, the FTSE EPRA Nareit Developed Europe Index estimated to be around 35% below its pre-crisis peak even in 2022. We believe current valuations for listed real estate do not account sufficiently for these downside risks and so a cautious allocation stance is warranted.

Notwithstanding these developments, the crisis does not undermine the broad conclusion of our previous research supporting the long-term benefits to investors of a substantial allocation to listed real estate. The asset class can help European investors meet their long-term strategic objectives by enhancing the risk-return characteristics of a multi-asset portfolio.



APPENDIX: THE OXFORD GLOBAL ECONOMIC MODEL

The key framework in which Oxford Economics' analysis is conducted is its own Global Econometric Model (GEM). The GEM replicates the world economy by interlinking 80 countries, 6 regional trading blocs and the Eurozone. These countries are interlinked through international trade in goods and services, competitiveness (measured by unit labour costs adjusted for the exchange rate), capital markets, interest rates and commodity prices. Historic data and forecasts are updated on a monthly basis by our country economists.

Profits Household income Taxation Government spending Interest Equity Prices Taxation Government Spending Taxation Government Spending Taxation Taxation Taxation Government Spending Taxation S

STYLISED VERSION OF THE GEM

This Model—which is unique among the commercial economic consultancies—provides a rigorous and consistent structure for analysis and forecasting, and allows the implications of alternative global scenarios and policy developments to be readily analysed at both the macro, sectoral and regional level.

Asset prices are embedded in the Global Economic Model. Key financial variables include:

- Interest rates: policy rates, money market rates, sovereign yield curves, Swap curves.
- **Equity prices:** main stock market indices covered in each country.
- Exchange rates: spot rate against US\$ & € enabling calculation of other cross rates, and nominal/real effective exchange rates.
- Commodity prices: oil, natural gas, gold, and other metals.

We have also estimated an equation linking the performance of European listed real estate with fundamental economic drivers. This was incorporated into the GEM so that future performance of the FTSE EPRA Nareit Developed Europe Index could be assessed under alternative economic scenarios.



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