This short paper expands upon content first published in PGIM Real Estate’s 2020 Global Outlook report: Real Estate During a Crisis.

Introduction
The outbreak of COVID-19 quickly turned into a severe shock. The decline in economic output recorded in the first half of 2020 makes the fallout from the 2008 global financial crisis seem mild in comparison, whereas in real estate markets, transaction volume has slowed sharply and values are under pressure — notably in retail and hotels.

Early signs for the second half of the year point to a gradual normalization of activity, yet the situation continues to evolve rapidly. The highly uncertain nature of the current crisis — in which public health concerns and policy measures are intertwined with unprecedented economic and financial stresses — makes predicting its path a particularly difficult task.

In such a challenging environment, investors face difficult portfolio decisions. Building diversified exposure comes at a cost, so it is important to assess the benefits of gaining exposure to a wide range of sectors and geographies as opposed to a more-specified strategic approach.

The Range of Outcomes Is Wide
The abrupt switch from being in a late cycle expansion to a downturn means that it is important to assess what the range of outcomes might look like. The left-hand side of exhibit 1 shows the results from a simple bootstrap model, in the form of a fan chart, built up from the pattern of value movements recorded in downturns across a wide variety of global sectors and markets over the past 40 years.

It is important to note that this model makes no adjustment for the nature of the current downturn. It simply aims to set out a full spectrum of plausible outcomes under the assumption that a downturn is under way, using the end of the first quarter as the starting point.

The unadjusted central scenario is a roughly 20% fall in values in real terms over two to three years, with a lower bound around the negative 40% mark over the same time period. In an optimistic scenario, a downturn could leave real estate values more or less unchanged over two years, but the extent of market disruption caused by COVID-19 points toward higher-impact scenarios.
Exhibit 1: Analysis of Global Real Estate Values Following a Peak

At the market level there are significant variations too. A simple historical analysis shows that most markets will report declining values — in real terms — for an average of about three years following a peak. However, even though some markets are already reporting a strong bounce-back in values at that point, markets in the bottom quartile are still reporting modestly declining real values five years later.

The most-likely cause of a prolonged downturn is either sustained financial distress, as suffered by markets in the eurozone periphery after the global financial crisis, or an overhang of supply, which weighed on most major markets in Europe and the United States in the early 1990s.

For portfolio construction, it is important to note that after three years, more than 50% of markets are likely to still be recording negative quarterly real value growth, so building exposure to recovering sectors and markets can generate significant outperformance.

Diversification in Uncertain Times

When it comes to diversification, the ultimate goal is to target strategies and markets that are going to outperform at any given moment in time. At the same time, real estate is an asset class with many factors that impede portfolio allocation, including imperfect information flows, a universe of nonhomogeneous assets, lags between market events and their effect on valuations, and a lengthy transaction process.

The upshot is that trying to accurately time a market cycle is no easy task. Even if a trough is predicted accurately, the ability to allocate capital and execute transactions rapidly and at sufficient scale to capture a short window of performance upside is not a given.

Even so, diversification across sectors and geographies has an important role to play — especially because individual markets, on average, have more-severe downturns than wider market measures.

Over time, there are few patterns to markets’ performing consistently well or badly in terms of total returns (exhibit 2). During a long period, prices adjust to take account of such factors as growth potential and risk; and previously unanticipated changes like the rise of online retail periodically come along to shake things up.
Exhibit 2: Prime Sector-Region Return Rankings

Estimated Prime Market Total Return (% p.a.)

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The relative performance of different sectors and regions varies significantly from year to year, suggesting a benefit from a diversified global real estate market exposure.

Sources: CoStar, Cushman & Wakefield, JLL, PGIM Real Estate. As of September 2020.

At a very simple level, holding a range of exposure across markets and sectors ensures that a portfolio will not suddenly find itself stuck at the bottom end of the ranking chart, and it vastly reduces the downside risks associated with an excessive concentration in any individual sector or market.

The Benefits of Asset Allocation Increase During a Downturn

Correlations among markets and sectors are typically elevated during a downturn, in the sense that values are — mostly — moving in the same direction. However, performance can differ significantly in terms of magnitude, meaning that the potential benefits from diversification and asset allocation actually increase in a downturn. That benefit increase is demonstrated in exhibit 3. The left-hand side shows a traditional efficient frontier, which gives feasible combinations of global developed markets sector-region exposure to achieve various return levels while minimizing risk.

Exhibit 3: Constructing a Global Developed Markets Efficient Frontier and Possibility Set

Global Developed Markets Efficient Frontier (2001-19)

Simple frontier plot shows that diversified portfolios can achieve superior risk-return combinations than individual sector / region exposure.

The potential benefits from diversification and effective asset allocation increase significantly in a downturn, implying a greater scope for outperformance.

Source: PGIM Real Estate. As of September 2020.
To proxy the potential benefit from diversification and effective strategic and tactical asset allocation, it is useful to look at how far investors can feasibly boost performance. Using a diversified but neutral global portfolio as a starting point (shown by the orange triangle), the feasible range of improvement is given by the area to the left, where risk is lower, and above, where returns are higher. The area is then constrained by the boundary of the efficient frontier.

On the right-hand side, the possibility set for investors is plotted relative to the global portfolio. Clearly, returns were much lower during the global financial crisis, but the potential to outperform — by limiting losses or making low, stable returns in a challenging environment — was much greater than during benign, upswing market conditions.

**Using Debt to Smooth Returns**

Senior real estate debt offers a very different return profile to equity positions. In many cases, core senior loans are simply held to maturity, so returns are solely functions of the coupon received and any capital loss incurred, which is typically very low. For example, outright losses on senior loans were rare during the global financial crisis — even as equity values declined significantly.

As with other investment instruments, it is important to be able to assess the risk-return characteristics of lending strategies. The value of a debt position and its total return does fluctuate over time on paper, varying with prevailing interest rates that affect the coupon and mark-to-market value of the position, margins, and any capital loss incurred via changes in value of the underlying asset. Yet even once these effects are factored in, the range of returns recorded on debt investments is significantly narrower than for equity investments (exhibit 4).

Even more striking is that the distribution of returns doesn’t vary much through different stages of the cycle. In contrast to equity, returns tend to drop slightly on average for investments made during the trough and early recovery phase of the cycle, primarily reflecting interest rate cuts that typically follow a downturn or recession.

In return, debt investors benefit from a high degree of security over the capital value of their position, with a very low probability of capital loss occurring on core, income-generating assets over, say, a five-year hold period.
Today’s market uncertainty serves to highlight the value of having an allocation to senior debt, although its benefits — in the forms of secure cash flow, capital protection and predictable returns — extend beyond downturns, as the risk of making losses on equity investments persists through most of the cycle.

At the same time, the opportunity set is growing. While investment volume is set to remain depressed in the near term, senior lenders can participate in both new deals and in refinancing activity on existing transactions and nontraded assets. Banks are set to face further regulatory constraints as values come under pressure, pointing toward opportunities for alternative senior debt providers to continue to gain market share.

Concluding Remarks
Even though returns are lower during a downturn, it is clear that the benefits of diversification and effective asset allocation increase significantly.

The benefit comes in two stages. The first is that simply by diversifying by sector and region, investors can avoid portfolio concentration risk in underperforming sectors. Given that many markets will struggle for some time in the aftermath of a downturn, such diversification and risk avoidance are attractive.

At a deeper level, the potential benefits from effective asset allocation increase — in the sense that the potential to outperform a neutral global benchmark expands significantly.

Because returns are lower, limiting losses or achieving modestly positive returns can generate substantial relative outperformance. In that respect, senior debt has a role to play too, by offering investors a more defensive returns profile that typically outperforms — at much lower risk — through a downturn.

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