



DUFF & PHELPS
INVESTMENT MANAGEMENT CO.



Inflation Protection and Listed Real Assets

Exploring new realities in a post-pandemic world



Inflation Protection and Listed Real Assets

Exploring new realities in a post-pandemic world

Greeting the world as we emerge from the COVID shutdowns is a word that, at least in many developed countries, has not been used since the 1970's: inflation. Our current, post-COVID state of affairs finds us with a mix of factors that complicates our reading of the macro economic environment and much commentary shed on whether or not the actual inflation we are seeing now will be with us for some time or whether it will be more transitory in nature.

Traditionally, inflation is of two types. The first type is 'cost-push' inflation, caused by increases in the costs of goods or services for which no suitable alternatives are available. Higher prices then result, as costs of production increase due to a decreased aggregate supply. The second type is 'demand-pull' inflation, arising when aggregate demand in an economy outpaces supply. This type is characterized by inflation rising as real gross domestic product swells and unemployment falls, commonly known as 'too much money chasing too few goods.' While they are distinctive inflation types, cost-push and demand-pull inflation can both be understood as separate aspects of one overall inflationary process. Demand-pull inflation explains how price inflation starts, and cost-push inflation demonstrates why inflation, once started, is difficult to contain.

Milton Friedman, who was of the monetarist school of economics, was critical of the cost-push idea and, in 1963, asserted that inflation is always and everywhere a monetary phenomenon. He maintained that there is a close association between inflation and money supply, and that inflation could be avoided with proper regulation of the monetary base's growth rate.



Ironically, today we find ourselves with elements of each of the three theories above embedded in our discussion of inflation. As a result of the global pandemic in 2020, we now find ourselves with many bottlenecks in global supply chains that are resulting in shortages of many elements necessary to our economy (cost-push). We also have many economies, like the US, where the

savings rate is currently very high, consumers are ready to get out and spend, and there are massive demands on both labor and resources as we attempt to ramp-up life as it was pre-2020 (demand-pull). And lastly as a result of massive government intervention over the last year, our money supply and central bank balance sheets have seen increases with no equal over the last 50 years (monetary factors).

US CPI-U: All Items Less Food and Energy % Change - Year over Year SA, 1982-84=100



Source: Strategas Research, Bureau of Labor Statistics

So, what to make of current wage inflation? Will supply chains catch up as life returns to normal? Will more production of critical commodities catch up with demand? Will central banks like the US Federal Reserve be able to moderate money supply, balance sheets, and rates so as to produce a smooth taper?

All of the answers to these questions will determine whether inflation becomes 'sticky' or – as central bankers predict – turns out to be more transitory. While outside the scope of this article, perhaps the largest factor not yet mentioned and too difficult

to tackle in an article of this size is the effect that 'temporary' inflation has on consumer psyche and whether the effect becomes embedded. These are not simple times and, in selecting a basket of global equities, one has to consider how the aforementioned factors will affect growth, income, and future purchasing power.

With their unique characteristics and potential to protect investors' portfolios from inflation, what part can listed infrastructure and listed real estate play in this new era?



Global Listed Infrastructure as an Inflation Hedge

Whether inflation is transitory or not is unlikely to be resolved for some time. What is clear, however, is that many infrastructure stocks are structured to perform well if inflation does materialize.

At the most basic level, infrastructure companies own physical assets that generate real returns. These assets often tend to be monopolistic or oligopolistic, regulated, and backed by long-term contracts with escalators.

Infrastructure companies' operating costs and margins tend to vary much less than those of more traditional companies, and thus they tend to have more stable valuations. Much of their debt is also fixed. Rising costs can certainly impact new construction, and while this may slow future growth, it is also likely to make existing assets more valuable.

Duff & Phelps' infrastructure strategies target four sectors: communications (wireless towers), utilities (electric, gas, and water), transportation (railroads, toll roads, and airports), and energy infrastructure (pipelines, natural gas processing, and LNG export

facilities). Each subsector within these four categories is well hedged against inflation. Almost none should experience a detrimental impact on growth and earnings if inflation increases significantly, as they all benefit from long-term contracts featuring escalators that either rise annually or are tied to inflation.

As shown in the following table, each infrastructure subsector has built-in inflation protection.

North American railroads and the wireless tower companies are best positioned. North American railroad service prices increase at or above inflation each year. Additionally, railroads pass through fuel charges to customers and become more competitive against trucks as fuel prices increase.

Wireless towers also have generous built-in escalators. In the US, these feature automatic annual increases of 2-3% and, in Europe, contracts escalate with any rise in inflation. Even the most vulnerable subsector, airports, still features inflation escalators on aeronautical fees, which make up roughly 40% of airport revenues.

“...many infrastructure stocks are structured to perform well if inflation does materialize...”



Global Listed Infrastructure Inflation Protection Characteristics By Subsector

Subsector	Hedge Rating	Comments
US Railroads	+++	<ul style="list-style-type: none">- Inflation + pricing escalators- Fuel costs passed through to customers- Higher fuel costs make more competitive vs. trucks
Wireless Towers	+++	<ul style="list-style-type: none">- US towers have 3% annual escalators; European towers have escalators tied to inflation
US Utilities	++	<ul style="list-style-type: none">- Mostly regulated, with pre-determined ROEs and expected costs recouped- Some lag, but some big costs (fuel) often passed through
Toll Roads	++	<ul style="list-style-type: none">- Inflation escalators on tolls
Energy Infrastructure	++	<ul style="list-style-type: none">- Higher commodity prices can drive volumes and directly benefit those with commodity exposure
European Utilities	+	<ul style="list-style-type: none">- Some regulation and cost pass-through- Higher commodity prices can drive higher profit generation
Airports	+	<ul style="list-style-type: none">- Aeronautical fees (~40% of revenue) have inflation escalators

Source: Duff & Phelps Investment Management Co.

While infrastructure earnings are generally well protected, it is important to remember that infrastructure stocks, especially utilities, typically do not trade well early in the inflation cycle.

Higher-yielding, defensive stocks tend to underperform as investors flock to more cyclical companies that will, at least initially, see larger step-ups in earnings. This tendency has played out this year in the utilities market, especially during January and February. Even now, most Wall Street strategists still maintain underweight ratings on utilities and other defensive sectors.

However, we are less concerned about this for two reasons:

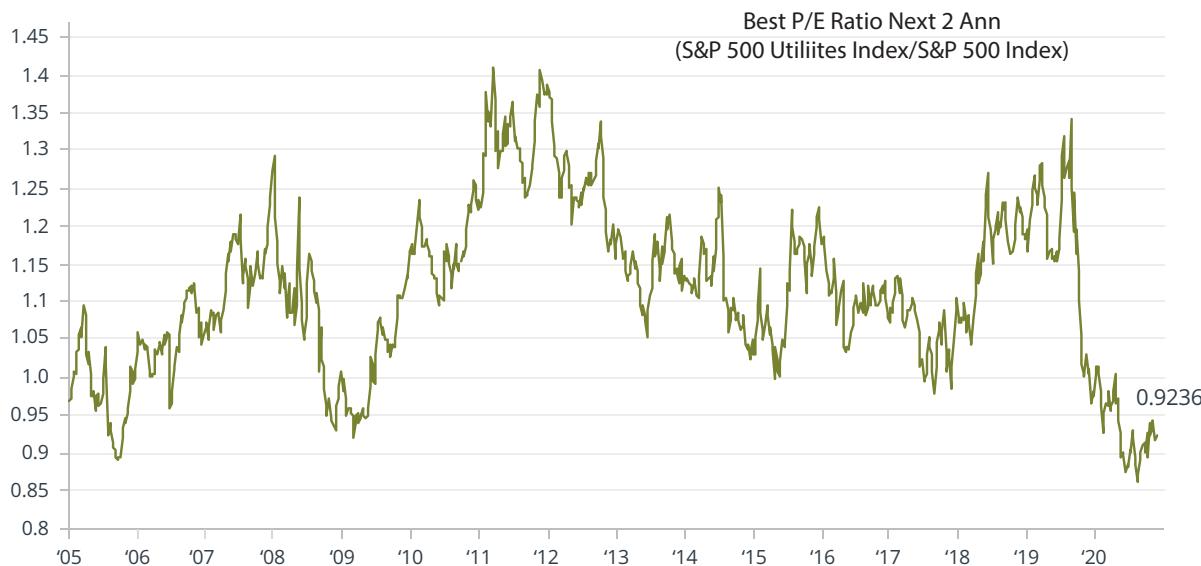
- 1) Utilities are not emerging from a typically strong pre-inflation year. Given the COVID-19 pandemic, global markets saw a big move down in interest rates in 2020. Despite this sizable yield drop,

US utilities actually trailed the broader market significantly. Relative valuations of utilities are at near-20-year lows.

- 2) Much of the data around how utilities have performed in periods of real inflation comes from the 1970s and 1980s. Today's utilities are much different than those of 50 years ago; management teams are more sophisticated, the regulatory construct is much better defined, balance sheets are stronger, and earnings growth is higher and more consistent. Additionally, utilities should be big beneficiaries of the transition to cleaner energy.



Historical Price/Earnings Ratio S&P 500 Utilities Index/S&P 500 Index



Source: Bloomberg Finance, LP

If inflation proves 'transitory,' subsectors like airports, toll roads, and midstream energy should thrive as the global economy re-opens and they rebound from the extremely challenging demand environment of 2020. Meanwhile, the secular growth stories around cell towers and US railroads should continue to drive those stocks. However, the real outperformance will

likely come if inflation proves to be more permanent or 'sticky.' Investors are likely to tolerate higher inflation for a while, as it pushes earnings higher, but as earnings start to slow, multiples will contract, and we would expect the more protected infrastructure names to become a real port in the storm.



The Relationship Between Global Real Estate and Inflation

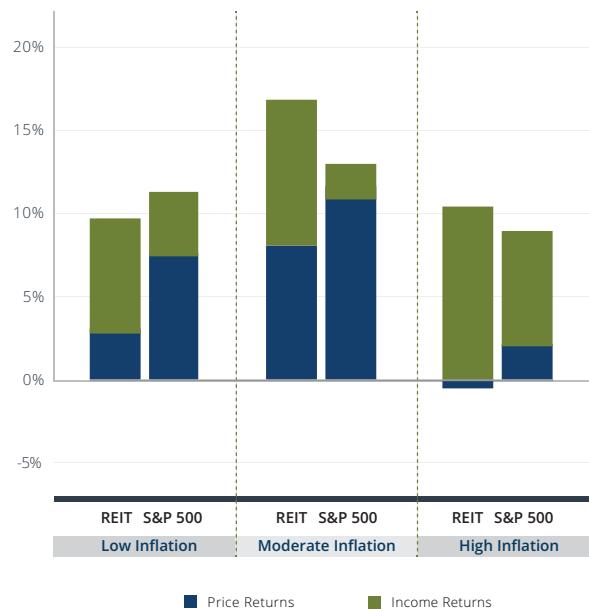
Similar to Infrastructure, Duff & Phelps has long recognized real estate's qualities as an inflation hedge and has known real estate as a preferred investment during periods of rising interest rates and inflation. We evaluate two attractive attributes real estate has as hedges against inflation: first, the ability to raise rents and, in turn, cash flows; and second, the increase in replacement costs of the real estate itself.

During historical periods of rising interest rates and medium-to-high inflation, REITs have generated positive total returns and outperformed equities. As shown in the following chart, which incorporates several different inflation regimes since Nareit began tracking data for REITs in 1972, REITs have delivered attractive returns during periods of low, moderate, and high inflation.

Generally speaking, rising interest rates and inflation occur in the midst of a rebounding or strengthening economy, which in turn leads to increasing demand for commercial real estate space. While capital costs typically rise with an increase in interest rates, REITs are able to offset increases in costs by pushing rents higher as the demand for space grows (see the following diagram). This dynamic can result in faster revenue growth, which may more than offset an increase in expenses due to higher inflation.

Thus, investors who seek out real estate during these periods recognize that REITs can increase their cash flow and dividends at a pace that may more than offset higher borrowing costs from rising interest rates and the negative effects of higher inflation. Additionally, the replacement value of investors' underlying real estate should increase as land values and input costs rise. Input costs include materials such as steel, concrete, lumber, and architectural and contractor services.

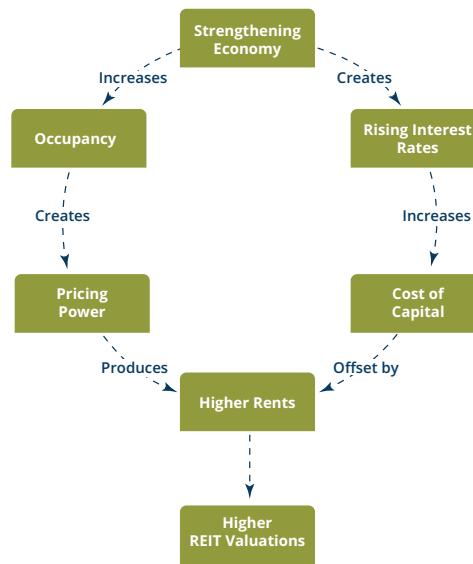
REIT Returns Compare Favorably to S&P 500 Returns During Different Inflation Periods



Source: Nareit analysis of prices for the FTSE Nareit All Equity REIT Index and S&P 500 Index; 1972-2020; inflation measured for all items, all urban consumers.

NOTE: Past performance is not an indication of future results.

Demand Leads to Pricing Power, Which Can Outweigh Higher Capital Costs



Source: Duff & Phelps Investment Management Co.

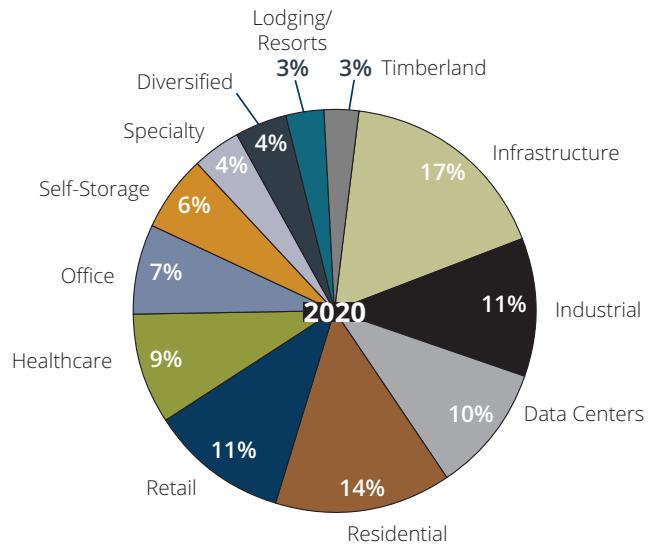
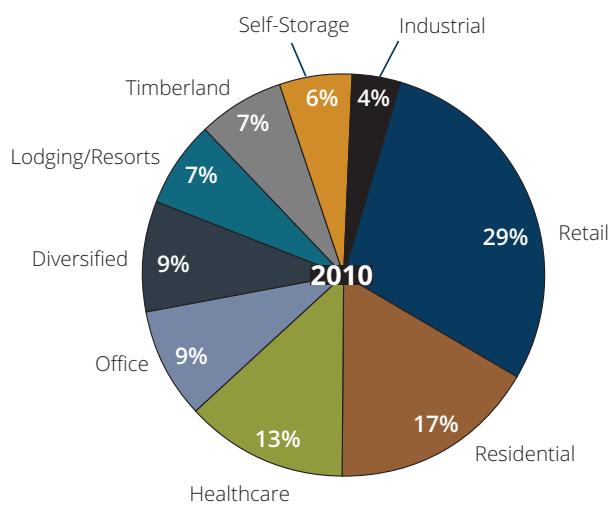


While real estate as a whole may prove to be a positive alternative during a period of rising interest rates and inflation, it is important to note how the listed market for real estate has evolved over time and that some real estate property sectors may perform better than others in this type of market environment. The following charts show how the REIT sectors have changed in the last ten years. During this time, the number of REIT sectors has grown from nine to twelve and currently includes seventeen when looking through to the retail and residential subsectors. Increased investment

opportunity exists across a number of sectors benefiting from secular growth including data centers, infrastructure including wireless towers, logistics a/k/a industrial, and single-family home rentals.

In 2010, the largest property sectors were traditional property types which included retail centers, residential, healthcare and office. If you fast forward 10 years, the industry has significantly expanded and now reflects the evolution of the changing U.S. economy and provides investors with a broader opportunity set.

Comparison of Sector Market Capitalization Shares 2010 - 2020



Source: FTSE Russell, Nareit. Data as of December 31, 2010 and December 31, 2020.

One way to differentiate among the different REIT property sectors and their sensitivities to changes in inflation and interest rates is to understand the average underlying duration of the leases across their real estate assets, where an increased frequency of rent repricing is provided by shorter leases. Another way is to evaluate to what extent longer leases have built-in rental rate increases (both fixed increases in rents and variable increases in rents linked to an inflation index

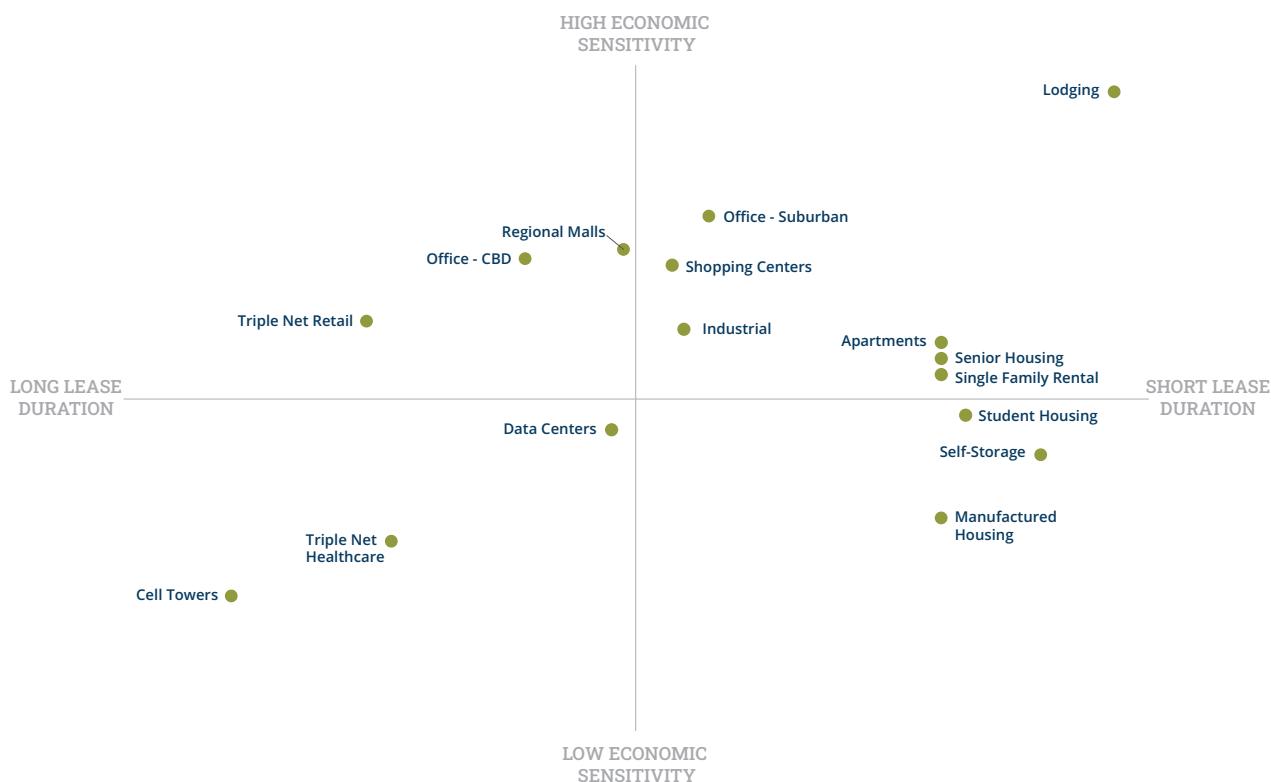
are possibilities). Given the wide variety of property sectors available in the listed real estate market today lease durations can range from as short as a day to over a decade. Just as bond portfolio managers can adjust the effective duration of their portfolios, active managers of listed real estate can do the same through a selection of listed real estate securities with a shorter or longer average lease duration.



When pricing power rises for landlords, having the ability to reprice leases more frequently is a significant advantage, particularly for those property sectors with typical lease durations of one year or less, which include the lodging, apartments, single-family home rentals, manufactured home communities, student housing, senior living, and self storage sectors. This pool of

property sectors with a typical lease duration of one year or less represents a significant opportunity set that has grown over time. It has historically offered even more repricing benefits in the midst of a strengthening economy than alternative fixed increases in rents during lease terms or variable increases in rents – linked to an inflation index such as CPI – during lease terms.

REITs LEASE DURATION vs. ECONOMIC SENSITIVITY



Source: Duff & Phelps Investment Management Co. as of August 2021.

REITs can perform well in a rising interest rate and inflationary environment due to the two attractive attributes we have demonstrated: first, the ability to raise rents and, in turn, cash flows; and second, the increase in replacement costs of the real estate itself.

Our outlook is particularly favorable for REITs that will benefit from an increase in economic and employment growth and are best positioned to grow

their businesses in this post-COVID recovery period. We expect the variance in global growth trajectories to create opportunities for active managers, such as Duff & Phelps, who are focused on high-quality owner/operators of enduring commercial real estate, with solid balance sheets and proven management teams. We believe our existing investment process remains well suited to identifying companies that will benefit from ongoing improvement in the economic backdrop.



Conclusion

If the pandemic has taught us one thing, it is that one cannot underestimate how quickly the world can change. While we do not know if the current inflation will be transitory or permanent, we do know that uncertainty surrounding inflation is top of mind for many investors. For the reasons discussed above, we are confident that Global Listed Infrastructure and Global Listed Real Estate have unique characteristics that positions them as an inflation hedge in this new season of investing.

Duff & Phelps is not a pure value or growth investor, but rather emphasizes relative valuations within each sector. We invest in companies with strong balance sheets and management teams that can drive continued success and have demonstrated their ability to efficiently allocate capital and create economic value over time. We believe the firm's investment philosophy positions us well to successfully invest our client's capital through the current environment, just like we have been doing for decades.

For more information about the role Global Listed Infrastructure and Global Listed Real Estate can play in your portfolio, please visit www.dpimc.com.

This material has been prepared using sources of information generally believed to be reliable; however, its accuracy is not guaranteed.

Opinions represented are subject to change and should not be considered investment advice or an offer of securities. Forward-looking statements are necessarily speculative in nature. It can be expected that some or all of the assumptions or beliefs underlying the forward-looking statements will not materialize or will vary significantly from actual results or outcomes. Note that an increase in interest rates can cause markets to decline and certain companies and sectors may be adversely impacted.



The Authors

David Grumhaus



David D. Grumhaus, Jr., President and CIO

of Duff & Phelps Investment Management Co. and portfolio manager for the firm's energy infrastructure strategies. He holds a BA in History from Princeton University and an MBA from Harvard Business School.

Steven Wittwer, CFA



**Steven Wittwer
Head of Infrastructure Group and
Senior Portfolio Manager**

of Duff & Phelps' listed infrastructure strategies. He holds a BBA in Accounting from the Wisconsin School of Business, University of Wisconsin, and an MBA in Finance from the Ross School of Business, University of Michigan-Ann Arbor.

Geoffrey Dybas, CFA



**Geoffrey Dybas, Head of
Global Real Estate Securities and
Senior Portfolio Manager**

of Duff & Phelps' listed real estate strategies. He holds a BS degree from Marquette University and an MBA from the Kellogg School of Management at Northwestern University.



Duff & Phelps Investment Management Co. services are not available in all jurisdictions and this material does not constitute a solicitation or offer to any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation.