The Impact of Novel Coronavirus (COVID-19) on the US Real Estate Market

April 1, 2020

This document is for Professional Clients and Qualified Investors (as defined in the important information), for Institutional Investors only in the United States, Australia and Singapore, and for Professional Investors only in Hong Kong, for Professional Investors in Japan as defined under the Financial Instruments and Exchange Law of Japan, for Qualified Professional Investors only in Republic of Korea, for certain specific sovereign wealth funds in the People's Republic of China, for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan and Thailand, and for certain specific Institutional Investors in Malaysia and for Wholesale Investors (as defined in the Financial Markets Conduct Act) in New Zealand, for certain specific institutional investors in Brunei and Indonesia and for qualified buyers in Philippines for informational purposes only. In Canada, the document is intended only for accredited investors as defined under National Instrument 45–106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. Please do not redistribute this document.

INVESCO REAL ESTATE

North America: Atlanta – Dallas – Newport Beach – New York – San Francisco

Europe: London – Luxembourg – Madrid – Milan – Munich – Paris – Prague – Warsaw

Asia Pacific: Beijing – Hong Kong – Hyderabad – Seoul – Shanghai – Singapore – Sydney – Tokyo

Summary: US real estate investment context

We are positioned well to act on our long-term convictions

- Pre-COVID short-term expectations: Continued growth of jobs and rents, albeit at a moderating pace
  - Now: Additional employment erosion; tenants to increasingly seek rent relief or not pay rent
- Pre-COVID capital markets: Selective but active equity capital; ample debt and healthy debt coverage
  - Now: Activity has stalled in the midst of price discovery; credit spreads have widened considerably
- Pre-COVID strategy: Defensive against cyclical headwinds; offensive toward long-term convictions
  - Now: Our pre-COVID posture has positioned us well for the current crisis
- COVID-19 has reinforced Invesco Real Estate's convictions regarding long-term tailwinds:
  - Expect technology trends to reinforce better relative performance for the industrial sector and offices located in innovation hubs.
  - Expect demographic trends to drive strong demand in the life sciences sector and medical offices catering to high-acuity tenants.
  - Expect financial market disruption to reinforce demand for rental housing, even as millennials approach ages traditionally associated with much higher home ownership.

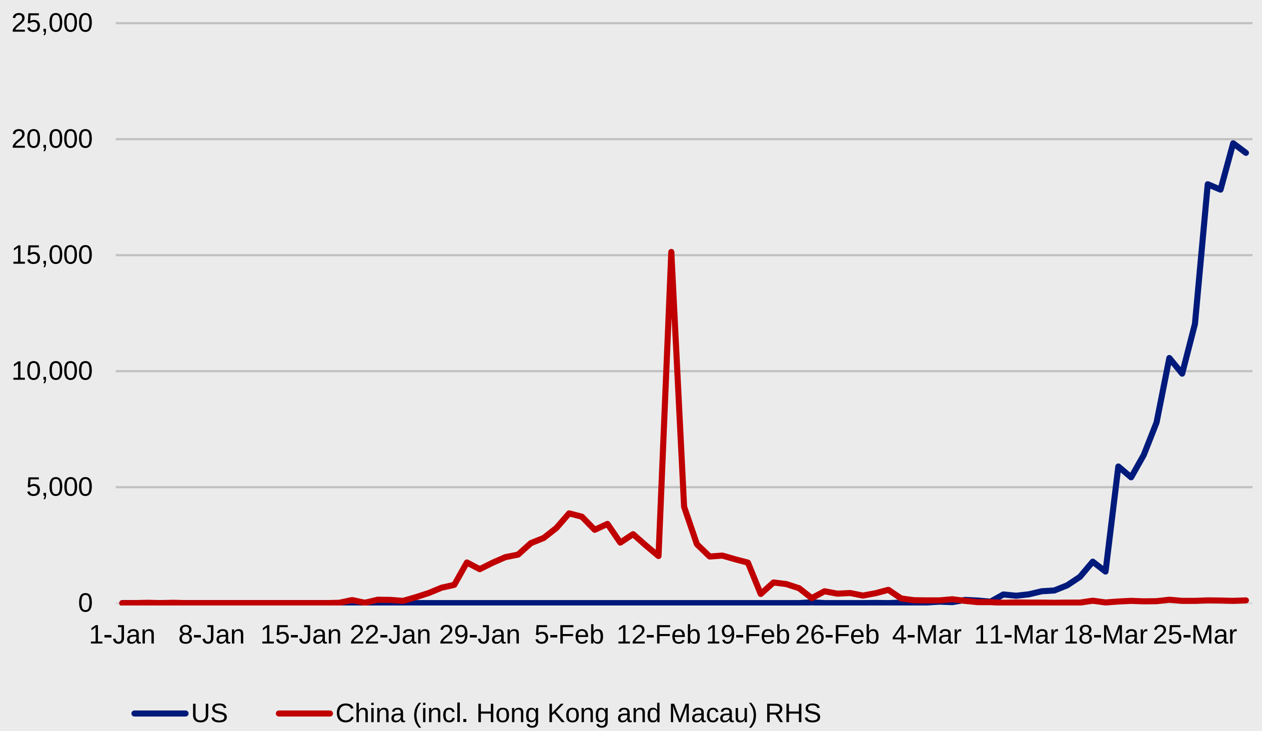
In short, we intend to be mindful of short-term headwinds as we act on our long-term convictions. Pricing scrutiny is heightened, thus we are maintaining our investment disciplines. Our investment posture is to remain alert to opportunities that could be caused by market dislocation, such as being able to access assets that usually would not be available, and to recapitalize assets where risk and pricing are misaligned.

Source: Invesco Real Estate as of 1 April 2020.

Pandemic: COVID-19 in the US

US case growth now far exceeds what China has experienced

Daily number of new confirmed cases of key markets in the US and China



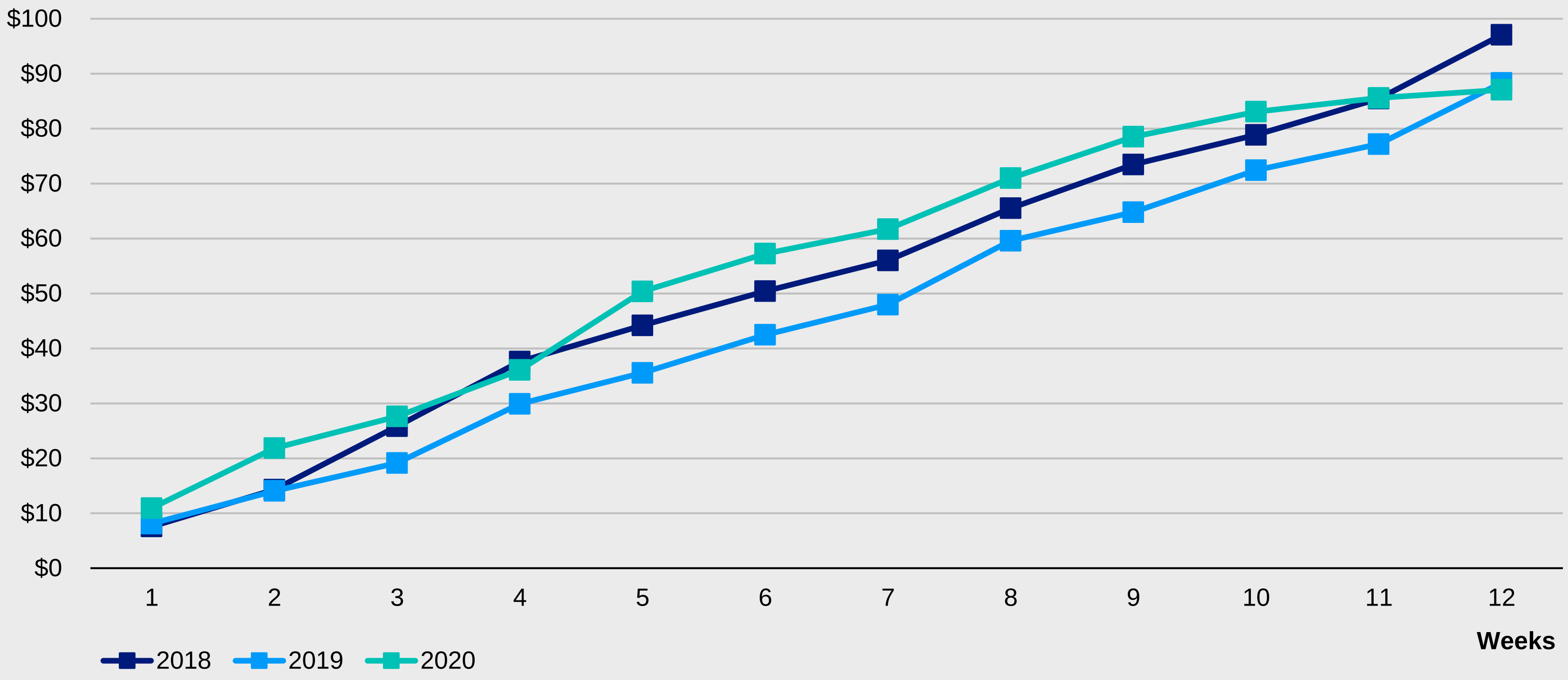
- As of 29 March 2020, 140,886 cases had been reported in the US, far surpassing China's count of 82,122 cases.
- Daily growth in US cases has continued to escalate, with the past couple of days at or near 20,000.
- Signs of US cases reaching a point of levelling off are not apparent at this time.

Source: Johns Hopkins University through 29 March 2020.

Transactions: Weekly real estate sales 2018-20 in the US

Expect transaction volume in 2020 to curtail more sharply

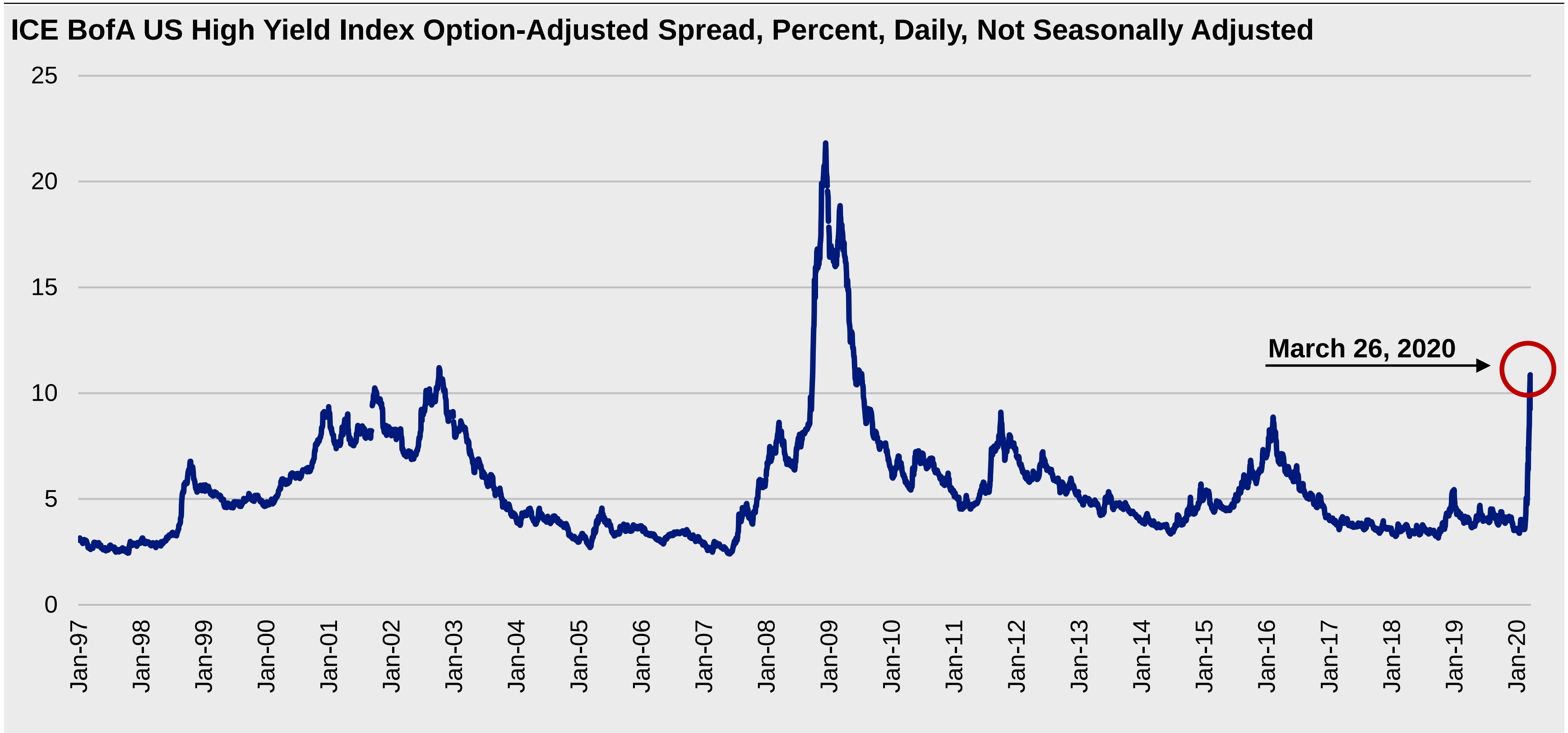
Real Capital Analytics all property weekly cumulative transaction volume (US$ bn) for the first 12 weeks



Sources: Invesco Real Estate based on data from Real Capital Analytics as of 29 March 2020.
Note: Deals $10m and greater; all major property types excluding development sites

Pricing: High-yield corporate bond spreads for the US

Sharp spread spike reflects liquidity concerns for higher-risk credit



Source: Invesco Real Estate, utilizing data from the Federal Reserve Bank of St. Louis and ICE Data Indices, LLC as of 26 March 2020.

Sectors: Potential impacts in the US (1)
Expect broader sector outperformance for industrial and apartments

Overall market	**Shorter-term** ▪ Expect 2020 to experience material declines in tenant demand and investment transaction volumes. ▪ Parties with liquidity needs could bring quality assets to market that ordinarily would not be offered.
	Longer-term ▪ Expect accumulated debt to keep interest rates low plus reduce economic growth and rent growth. ▪ Expect winners and losers to become more accentuated.
Industrial	**Shorter-term** ▪ Most leasing has paused, the major exception being Amazon. ▪ Seaport and airport activity has declined sharply. ▪ Inland distribution is being affected by a simultaneous pullback in demand and a rise in supply. ▪ End-of-supply chain infill warehouse has performed comparatively well.
	Longer-term ▪ Expect tenant demand to grow across the breadth of the supply chain.
Apartment	**Shorter-term** ▪ Expect drop in new leases, higher retention rates, and increased concessions. ▪ Expect many tenants to seek rent relief, which is being mandated by some municipalities. ▪ Short-term leases make for sharp revenue declines and sharp revenue recovery. ▪ The pause on short-term construction and lengthening of delivery timelines is the one silver lining.
	Longer-term ▪ Flattening of 20’s population plus millennials approaching 40’s imply a renter demand slowdown. ▪ But expect financial dislocation to mitigate these aging trends to some degree.

Source: Invesco Real Estate, 1 April 2020.

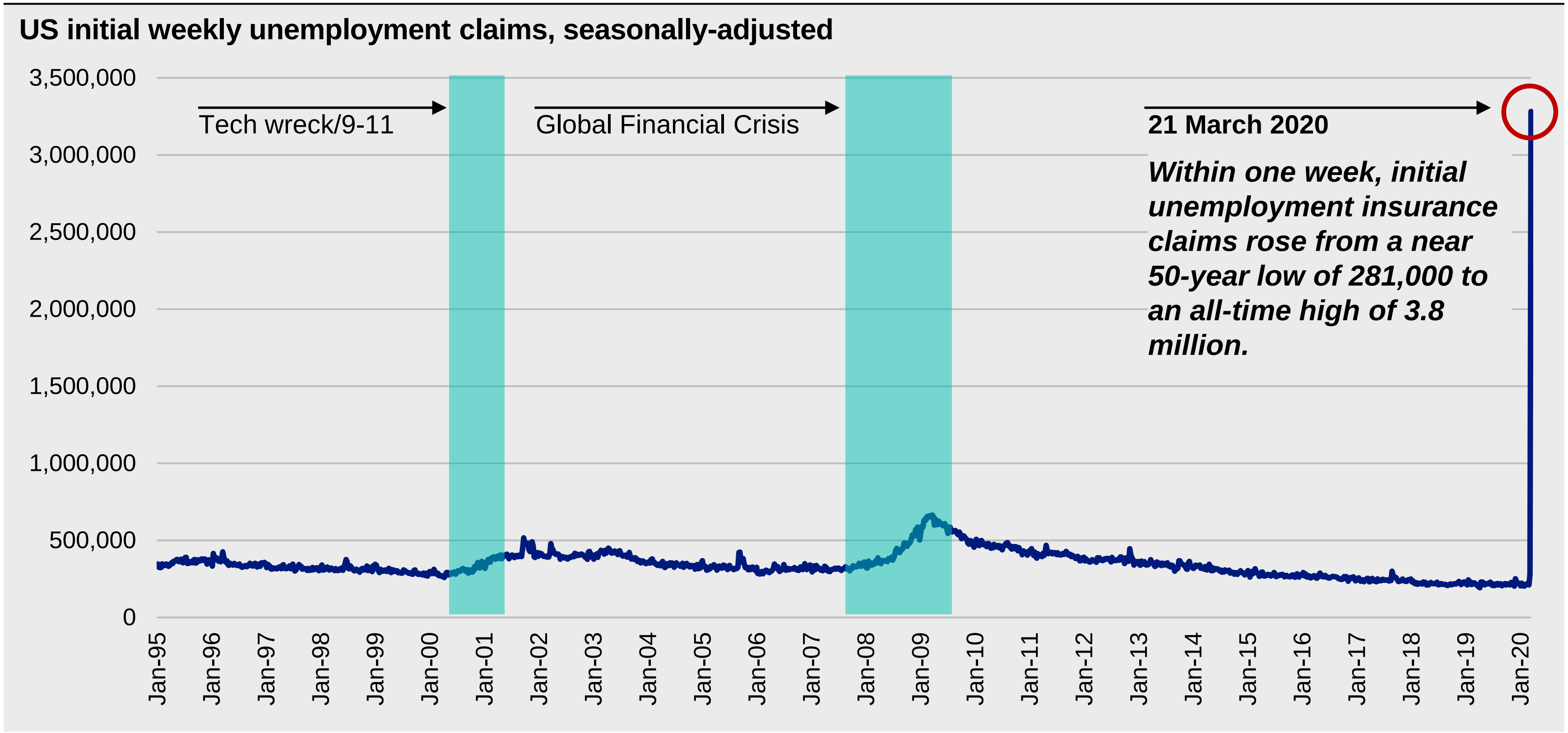
Sectors: Potential impacts in the US (2)

Expect bifurcated sector performance for office, retail, and healthcare

Office	**Shorter-term** ▪ Leasing has paused broadly, except for select activity among the FAANGS.* ▪ Tech should weather the storm relatively well as work-from-home and media streaming spikes. ▪ Financial services is mixed: Expect relatively stable homebuying and volatile stock market activity. ▪ Oil and gas tenants face substantial downturn.
	Longer-term ▪ Expect demand growth at innovation hubs to continue to substantially outdistance other locations.
Retail	**Short-term** ▪ Traffic at grocery stores, wholesale warehouses, and drug stores has spiked. ▪ Most other segments are highly vulnerable to store closures, whether temporary or permanent.
	Longer-term ▪ Expect COVID-19 to accelerate the shift toward e-commerce and challenges for storefront retail.
Healthcare	**Shorter-term** ▪ After the initial shock of COVID-19, life science tenant demand could increase short-term. ▪ Care providers in medical offices are delaying non-essential procedures; in-office traffic is down. ▪ Senior housing facilities are largely in lockdown with concerns over spread of the virus.
	Longer-term ▪ Life science already was drafting off structural tailwinds, and COVID-19 could accelerate growth. ▪ Expect medical office demand to rise as hospitals continue to send one-day procedures off-campus. ▪ Seniors housing may have to increase risk mitigation measures, which could raise costs.

Source: Invesco Real Estate, 1 April 2020. *FAANGS is an acronym that refers to: Facebook, Amazon, Apple, Netflix, Google, and Salesforce.

Economy: Unemployment insurance claims for the US
A week like none other for US workers

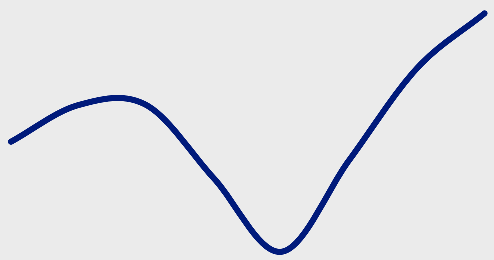


Source: Invesco Real Estate, utilizing data from the US Bureau of Labor Statistics and Moody's Analytics as of 21 March 2020.

Economy: Potential shapes of economic recovery in the US

The shape of the US economic recovery is still to be determined

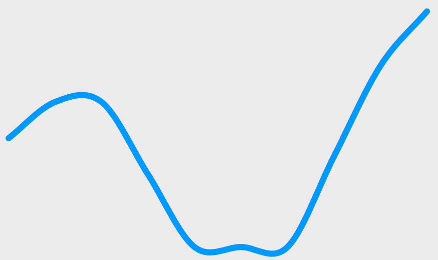
Three potential shapes of a US economic recovery:



V-Shaped

Recovery starts mid-2020

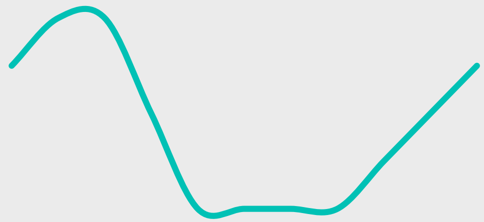
- The halting of economic activity provokes a sharp negative disruption to the US economy.
- Confirmed cases peak in Q2-2020.
- Economic shutdown thereafter is selective rather than broad.
- Pent-up demand drives a sharp recovery.



U-Shaped

Recovery starts late-2020

- The halting of economic activity provokes a sharp negative disruption to the US economy.
- Confirmed cases do not peak until Q3-2020.
- Thus, lockdown is lengthened and recovery is delayed.
- Pent-up demand begins to drive a sharp recovery later in 2020.



U-Shifted

Long-term growth is impaired

- Confirmed cases grow through the summer and into the fall.
- The longer the virus goes uncontained, the more severe are the costs to governments, businesses, and households.
- The virus is eventually contained, but in the meantime:
- Savings decline, growth rates fall short of previous norms, and the economy does not reach previous peak levels for several years.

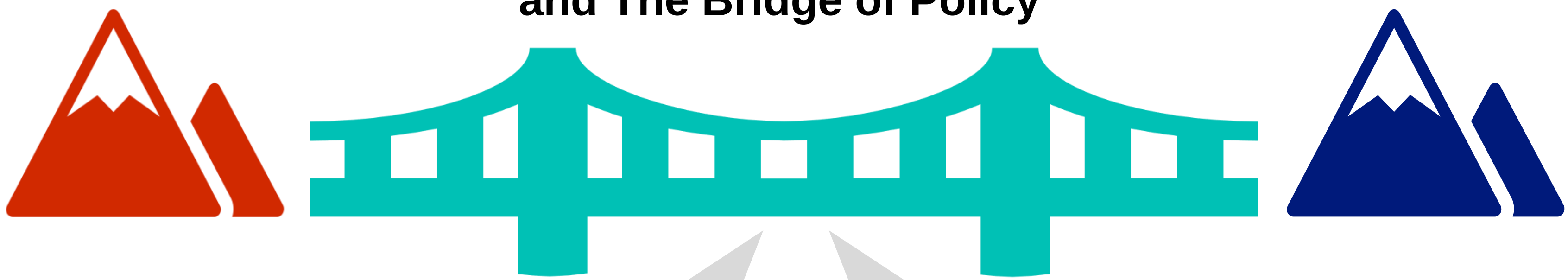
Source: Invesco Real Estate as of 1 April 2020.

Support: Massive government response in the US

Will "The Bridge of Policy" be long enough and strong enough?

Invesco

The crisis | **The Chasm of Lockdown and The Bridge of Policy** | **The other side**



Fiscal Policy:

- Direct payments to households
- Bailouts and loans for businesses
- Increasing unemployment insurance
- Increasing healthcare funding
- Aid for small businesses

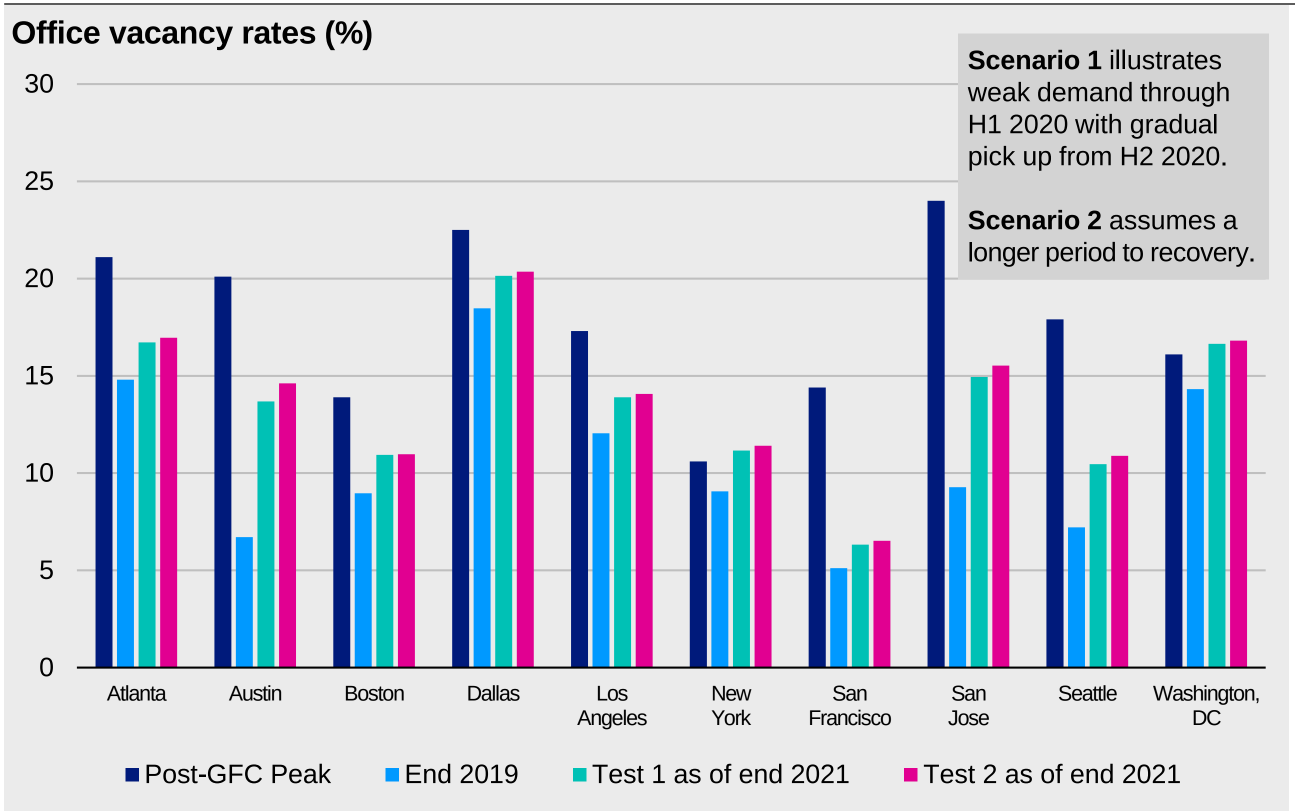
Monetary Policy:

- Moved Fed funds rate to 0%-0.25%
- Removal of purchase limits on US Treasuries, Agency MBS, and CMBS
- Creation/re-introduction/extension of several new lending facilities
- Reopening/extension of USD swap lines
- Removal of reserve requirements

Source: Invesco Real Estate as of 1 April 2020.

Scenarios: Stress testing office market vacancy in the US

Vacancy outlook holds up better than GFC if absorption is flat



- Under two scenarios of flattened absorption projections compared to pre-COVID expectations, year-end 2021 vacancy rates for most markets are projected to remain below post-GFC peaks.
- Supply in the next couple years was already set to be lower than historic levels. The impact of COVID-19 may delay progress on current construction projects. New projects could face tougher underwriting scrutiny.
- Most of the new supply is being built in innovation hubs where the lion's share of demand has been trending.

Test 1: 2020 net absorption = 0 square feet; 2021 net absorption = Pre-COVID forecast
Test 2: 2020 net absorption = 0; 2021 net absorption = ½ of pre-COVID forecast
Source: Invesco Real Estate using data from CBRE-EA as of 29 March 2020.

Strategy: Current considerations in the US

Be mindful of short-term strain as we act on long-term convictions

Invesco

	Less short-term COVID-19 impact	More short-term COVID-19 impact
Tailwinds	**Invest with conviction** ▪ Infill warehouse ▪ Apartments in low-supply locations ▪ Innovation hub office ▪ Life science office in top markets/locations ▪ Select medical office with high-acuity tenants	**Invest mindful of short-term volatility** ▪ Warehouse in markets with large ports and large populations ▪ Self-storage in low-supply locations
Headwinds	**Invest on favorable basis** ▪ Apartments in high-supply locations with strong long-term demand ▪ New warehouses in peripheral, exurb locations ▪ Self-storage in high-supply locations with dense populations or strong outlook for growth ▪ Peer-dominant grocery-anchored centers in high-density locations	**Cautious or avoid** ▪ Undifferentiated office in non-innovation hubs ▪ Power centers ▪ Malls ▪ Medical office with low-acuity tenants ▪ Self-storage in high-supply, low-density locations

Source: Invesco Real Estate, 1 April 2020.

Risk warnings

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Property and land can be difficult to sell, so investors may not be able to sell such investments when they want to. The value of property is generally a matter of an independent valuer's opinion and may not be realised.

Where individuals or the business have expressed opinions, they are based on current market conditions, they may differ from those of other investment professionals and are subject to change without notice.

Important information (1)

This document is for Professional Clients only in Andorra, Austria, Belgium, Croatia, Czech Republic, Denmark, Dubai, Finland, France, Germany, Ireland, Italy, Kuwait, Luxembourg, The Netherlands, Norway, Poland, Slovakia, Spain, Sweden, United Arab Emirates and UK, for Qualified Investors in Switzerland, for Institutional Investors only in the United States, Australia and Singapore, and for Professional Investors only in Hong Kong, for Professional Investors in Japan as defined under the Financial Instruments and Exchange Law of Japan, for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan and Thailand, for Qualified Professional Investors only in Republic of Korea, for certain specific sovereign wealth funds in the People's Republic of China, for certain specific Institutional Investors in Malaysia and for Wholesale Investors (as defined in the Financial Markets Conduct Act) in New Zealand, for certain specific institutional investors in Brunei and Indonesia and for qualified buyers in Philippines for informational purposes only. In Canada, the document is intended only for accredited investors as defined under National Instrument 45–106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. **Please do not redistribute this document.**

By accepting this document, you consent to communicate with us in English, unless you inform us otherwise.

Target figures, where mentioned, are not the actual allocations of a specific Invesco product. This document is marketing material and is not intended as a recommendation to invest in any particular asset class, security or strategy. Regulatory requirements that require impartiality of investment/investment strategy recommendations are therefore not applicable nor are any prohibitions to trade before publication. The information provided is for illustrative purposes only, it should not be relied upon as recommendations to buy or sell securities or financial instruments. This marketing document is not an invitation to subscribe for shares in a fund or any other investment product and is by way of information only, it should not be considered financial advice. The information contained in this document may not have been prepared or tailored for any audience. It does not take into account individual objectives, taxation position or financial needs. This does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them.

You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco. This material may contain statements that are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield and return and are based on information available on the date hereof. They are based upon certain beliefs, assumptions and expectations, which can change over time. Accordingly, forecasts are not reliable indicators of future performance. You should not place undue reliance on these forward-looking statements.

Important information (2)

Issuer details

- Australia and New Zealand by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia which holds an Australian Financial Services Licence number 239916.
- Andorra, Austria, Belgium, Croatia, Czech Republic, Denmark, Dubai, Finland, France, Germany, Ireland, Italy, Kuwait, Luxembourg, the Netherlands, Norway, Poland, Slovakia, Spain, Sweden, Switzerland, United Arab Emirates and UK by:
- Invesco Asset Management Limited, Perpetual Park, Perpetual Park Drive, Henley-on-Thames, Oxfordshire RG9 1HH, UK. Authorised and regulated by the Financial Conduct Authority; Invesco Asset Management Deutschland GmbH, An der Welle 5, 60322 Frankfurt am Main, Germany; Invesco Asset Management S.A., 18 rue de Londres, 75009, Paris, France. Authorised and regulated by the Autorité des marchés financiers in France.
- Canada by Invesco Canada Ltd., 5140 Yonge Street, Suite 800, Toronto, Ontario, M2N 6X7, Canada.
- Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 41/F, Champion Tower, Three Garden Road, Central, Hong Kong.
- Japan by Invesco Asset Management (Japan) Limited, Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114; Registration Number: The Director-General of Kanto Local Finance Bureau (Kin-sho) 306; Member of the Investment Trusts Association, Japan and the Japan Investment Advisers Association.
- Singapore by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.
- Taiwan by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). Invesco Taiwan Limited is operated and managed independently.
- The US by Invesco Advisers, Inc., Two Peachtree Pointe, 1555 Peachtree Street N.E., Atlanta, Georgia 30309, USA.

GL247-03.2020