PART ONE

MARCH 2020

CUSHMAN &

This report was published as of 2/28/2020. Give the fluidity of the situation; Cushman & Wakefield will provide updates as pertinent information becomes available.

The outbreak of the novel coronavirus, formally named COVID-19 by the World Health Organization (WHO), has been devastating to all those affected, both in China and worldwide. Our thoughts go first to the victims, their families, and the health-care workers battling the outbreak. Developments are extremely fluid, and tremendous uncertainty remains regarding how broadly the virus will spread and what its ultimate impact will be on health policy, economic growth and financial and real estate markets. Given the disruption the virus has already visited on large swaths of the global economy, it may be helpful to review a few early observations and provide an initial assessment of how the outbreak may impact the property markets going forward.

SUMMARY

- The novel coronavirus is battering China's economy and is beginning to weigh heavily on economies in the rest of the world. The precise impact the outbreak will have on China and the global economy is unknowable, but it is clearly causing disruptions to different sectors of the economy.
- All eyes are on the financial markets. Stocks have tumbled in recent days (referencing last week of February) as the virus spreads to other countries and investors struggle to price in the potential economic fallout and growing downside risk. The CBOE volatility index (VIX) has nearly quadrupled in recent days.
- Central banks are responding aggressively. The People's Bank of China (PBOC) has deployed several new stimulus measures, and central banks in Indonesia and Singapore have also stepped up support. Odds are increasing that the Federal Open Market Committee (FOMC) will also vote to cut the federal funds rate.
- In terms of the impact on property, it's also premature to draw strong inferences about the virus's impact. We simply note that the commercial real estate sector is not the stock market. It's slower moving and the leasing fundamentals don't swing wildly from day to day. Certainly, if the virus has a sustained and material impact

on the broader economy, it will have feedthrough impacts on property as well. But again, it's still too early to gauge any fallout.

- The outbreak has also prompted a flight to quality, driving investors into the bond markets. Ten-year government bond yields are down 40 basis points (bps) on average since the beginning of the year. The drop in rates is creating more attractive debt/refinance options.
- If past outbreaks are a useful guide, then COVID-19 should largely be contained by the first half of 2020.
 Most anticipate a strong rebound in markets in the second half of the year.
- Some good news is that the daily number newly reported COVID-19 cases has been declining in China in recent weeks, suggesting the outbreak is perhaps reaching a turning point. However, there has been an uptick in reported cases outside of China in the past week.
- The global economy was gathering momentum heading into 2020. Assuming infections globally will abate by mid-year, and with more government stimulus now going in, market conditions will be primed for a robust rebound as pent up demand is unleashed.

PART ONE

MARCH 2020

CUSHMAN &

INITIAL ECONOMIC IMPACT

As of Thursday, February 27, 2020, there are over 82,000 people infected with the novel coronavirus (COVID-19) worldwide, with nearly 3,000 deaths resulting from the illness. The outbreak has been concentrated in mainland China, but the virus has spread to more than 45 other countries as well. Wuhan, where the outbreak originated, and other large areas of China and other parts of Asia are under quarantine, many employees have been told not to go to work, children not to go to school. Some of these restrictions have begun to ease over the past week.

COVID-19 is severely disrupting China's economy and its impact is spreading more meaningfully to other parts of the global economy. Large areas of China's economy have effectively been shut down. Most airlines and cruise lines have stopped travel to and from China. Many Chinese factories have been shuttered. To help shore up its economy, the Chinese government is deploying several fiscal and monetary measures: lowering lending rates to retailers, hotels and other areas of the economy most impacted; increasing subsidies; increasing liquidity programs and instituting other stimulus measures. The PBOC has also cut

the prime rate for one- and five-year loans. These measures will help cushion the blow to China's economy.

Given China's importance to the economy-accounting global for 16.9% of real global GDP in 2019-the COVID-19 outbreak in China is impacting many sectors and geographies around the world. The main impacts will be felt primarily through reduced demand for exports by China (and to a lesser extent the broader Asia Pacific region), supply chain disruptions (via bottlenecks for imports from the region), reduced tourism and business travel, and the

potential for a crisis of confidence to emerge. Now that the virus has spread, it is unknown how these effects may be felt across a variety of countries.



The main impacts will be felt primarily through reduced demand for exports by China, supply chain disruptions, reduced tourism and business travel, and the potential for a crisis of confidence to emerge.

All eyes are on the financial markets. U.S. and European equity markets which had been mostly resilient since the outbreak, are now starting to price in greater downside risk. In the last few weeks, we've observed wild negative swings in virtually all global stock market indexes including a 1,000-point-drop in the Dow on February 24, 2020. The outbreak has also prompted a flight to quality, driving investors into the bond markets which has in turn put upward pressure on the U.S. dollar. Tenyear government bond yields in the U.S., UK, across most of Europe and Japan, are currently approximately 40 bps lower since the beginning of the year. The drop in rates is creating more attractive debt/refinance options.

Past experiences—whether previous viral outbursts or supply chain disruptors such as the Thai tsunami of 2004 or

CUSHMAN & WAKEFIELD

MARCH 2020

PART ONE

the Fukushima tsunami of 2011—suggest that once the outbreak is contained, the negative impact to near-term growth will largely reverse as pent-up demand induces a surge in economic activity afterwards. It is on that basis, in combination with the aggressive response from central banks and China's numerous government stimulus programs, that most baseline forecasts assume a significant rebound in economic activity to occur H2 2020.

IMPACT ON PROPERTY MARKETS IN 2020

The CRE industry reports most data on a quarterly basis, so until the hard data rolls in for Q1 2020 we cannot draw any firm conclusions about the impact from COVID-19 on the property markets. Further, CRE leasing fundamentals typically lag the economy, whereas the capital markets effects are more immediate. In many parts of the world, CRE metrics display seasonality with the first quarter of every year typically being the weakest, so drawing decisive conclusions must be done carefully.

Below are some educated high-level conjectures about what to expect over the coming quarters:

China's property markets will be the most severely disrupted in H1 2020 with longer-lasting implications that may reshape business markets. In the medium term, renewed healthcare sector expansion is likely while an acceleration in supply chain diversification may unfold (something already under scrutiny due to the U.S.-China trade dispute). In the near term, while retail and hospitality will be hardest hit, office demand will be restrained as well. Rising vacancy is likely to suppress office rent growth until business confidence and activity is restored. Industrial is more of a mixed bag, with export-oriented facilities seeing greater time and costs for entry-exit inspection as well as product quarantines. Bonded warehouses may suffer the most whereas Grade A warehouses should feel less impact given the supplydemand balance across mainland China markets. See our report on Asia Pacific for more details on how the region's other nations may fare.

In Europe, the global impact will put countries that are more reliant on trade and manufacturing—such as those in the CEE region¹, the Netherlands and Germany—more at risk. Italy also stands to be impacted given the recent uptick in infections. Supply chain effects are already surfacing, from

¹Central and Eastern European region

AMERICAS CRE IMPACTS OUTSIDE U.S.

BRAZIL: Brazil's number-one trading partner is China, with industry and agricultural exposure to corrections in both copper and soy bean prices. This exposure is reflected in the near 10% decline in the Brazilian currency since the COVID-19 outbreak began. For CRE, there have not been any notable real-time impacts. Domestic demand has accelerated recently, including for office space in prime regions which are registering the lowest vacancy rates since 2014. Several secondary major markets have also registered a notable uptick in absorption since 2018. A slowdown in Brazil's trade activity could affect the logistics sector in markets such as São Paulo, which is entering its third-best year of expansion since the recent economic crisis that Brazil faced. This makes gross CRE demand still resilient to any near-term downward pressure on exports and production.

CANADA: Canada has some economic exposure to commodity price corrections: the oil sector accounts for 10% of exports and 4% of Canadian GDP, with a high concentration in Alberta, Newfoundland and Labrador. Non-oil provinces are expected to benefit from a lower path of interest rates

which is now expected in order to keep the currency stable. In turn, lower interest rate should support consumer activity which may result in a pick-up in demand momentum across the residential sectors. Demand for owner-occupied industrial product is also likely to accelerate against this backdrop with any pause in office and/or leasing activity temporary. As in other global regions, hospitality and retail sectors are dependent on Chinese tourism and/or supply chains, and so are liable to experience near-term disruption.

MEXICO: Little impact outside of retail and hospitality sectors is expected, with retail already feeling the effects of a recent economic slowdown for idiosyncratic reasons. Mexico's real GDP declined by 0.1% in 2019 due to a pullback in gross investment and government spending. Any induced monetary policy easing as a result of global headwinds may make real estate investment more attractive at a time when the Mexican economy is expected to stabilize and growth to accelerate. While Mexico's tourism industry is most reliant on visitors from the Americas and Europe, a prolonged period of notraveling sentiment would be reflected in hospitality demand.

PART ONE

equipment manufacturers that are unable to maintain normal production rates to some auto manufacturers that are unable to find alternative component sourcing. Indeed, with China as auto manufacturers' largest consumer market, the auto demand impact is expected to take a toll in the near term. Despite this, the outlook for broader logistics remains unadjusted as eCommerce continues to expand structurally and reorganize supply chains to enable faster and more cost-efficient delivery. Retail and hospitality, reliant on both tourism (leisure and business) and goods sourced from Asia, will be viewed with caution. Office occupiers may pause on expansions in the near term until the services sectors prove their resilience in the face of weaker near-term global demand. Overall investment and deal-making may be delayed on the margin, but no pullback in annual activity is expected.² Only 1.6% of the total capital invested in the EMEA region over the last five years was from China and 2.7% when Hong Kong is included; that share climbs to just 5.7% when Asia Pacific is included. However, many investors from Asia have a physical presence outside of the region. Further, in recent years, China specifically has been less active in Europe and the U.S. as a result of multiple capital controls.

The U.S. is more insulated: 70% of the U.S. economy is driven by domestic spending and it generally has less exposure to Asia Pacific than do other global regions. However, the U.S. and China also have the largest bilateral trade relationship in the world – so the U.S. is far from bullet-proof. For now, it is too soon to say what the office sector impact will be, but more caution and unique challenges for the tech industry specifically indicate that some leasing activity may be curtailed in the near term as firms grapple with larger supply chain issues.

The hotel sector is the industry most obviously impacted by the sharp decline in Asian tourism. Around three million Chinese tourists visit the U.S. each year, according to Neilson. During the SARS (severe acute respiratory syndrome) epidemic in the early 2000s, the number of visitors from China and Hong Kong declined 25% between 2002 and 2003, according to the U.S. National Travel & Tourism Office (NTTO). The impact from COVID-19 is already tracking to be much worse, as Chinese travel and tourism to the U.S. has come to virtual halt. This weakness is being captured by the U.S. hotel REITS, which are down 21.3% as of February 27, 2020.

² On a spread basis, lower sovereign debt yields make make investment in CRE, particularly on the debt and refinancing side, more attractive. This is especially true for stable global cities. The level of dry powder targeting CRE is supportive of continued activity.

HOW ARE GLOBAL SUPPLY CHAINS BEING AFFECTED?

While production-related challenges may be overcome in the coming weeks, limited inbound and outbound freight capacity could become the biggest obstacle in the near-term for supply chains to normalize. With limited trucking capacity available in key Chinese logistics hubs, congestion has started to build at air cargo terminals, port terminal yards, and warehouses. As a result, cargo operations have stalled, slowing the flow of goods and resulting in demurrage costs for shippers. Further exacerbating the disruption, shipping lines have announced extensive service cancellations which has limited shipping capacity for trans-Pacific trade lanes as well as trade lanes between Asia and Europe. So too have air carriers canceled services, which has crimped air freight capacity. These disruptions cascade through the supply chain. Without consumer goods coming from China's factories to the U.S. or Europe, fewer cargo containers are available for return shipment (exports) to China. The cancellation of shipping services (called blankings) also has this effect. Logistical challenges are particularly acute for refrigerated containers (referred to as reefers) of perishable goods which require special handling and require portside reefer plugs to maintain temperature. With very limited or no reefer plugs available at major terminals in Nongbo, Shanghai, and Tianjin, carriers have begun applying shipping surcharges and have re-routed refrigerated conter ports with reefer plugs available.

MATON - C

CUSHMAN &

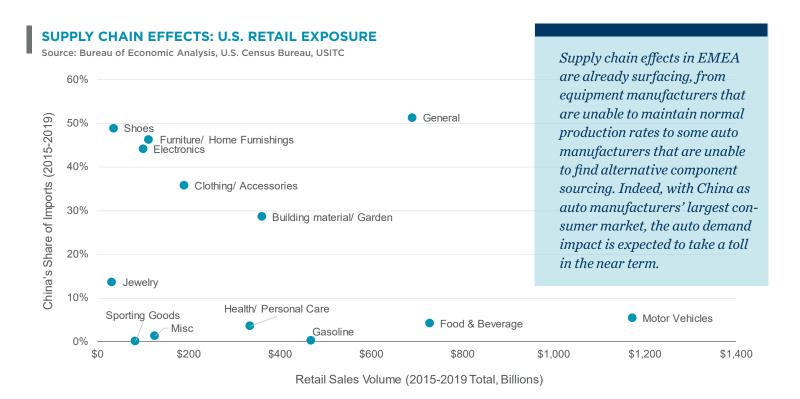
MARCH 2020

PART ONE

The U.S. retail industry is also being affected by the outbreak at a time when retail real estate is grappling with other challenges (i.e. tariff impact and eCommerce effect). The most immediate impact has been suffered by brands with a significant presence in China. While Asia Pacific accounts for 34% of all global luxury retail sales, China drives half of that number. Global fast food brands also have a major presence in China; most of these brands have reported temporarily closing many stores in the most heavily impacted regions of China and reducing operating hours in others. Fast food chains have quickly ramped up "contact-less" delivery and pickup strategies to adapt. Still, nearly every major publicly traded retail or restaurant brand with a major presence in China has already revised their forecasts downward.

Another immediate impact of the outbreak for North American retail will be felt in the supply chain. U.S. wholesale inventories are generally healthy at the moment due to the efforts of retailers to get ahead of potential tariff issues and the Lunar New Year. However, the real retail inventory-tosales ratio is already at its lowest point since the expansion began. While most spring and summer merchandise has shipped, disruptions in the retail supply chain could begin to be felt as early as April. Retailers with shorter lead-time replenishment models (JiT, etc.) could be among the first to experience supply issues. Dollar stores, consumer electronics, toys and the apparel categories all face potential disruption in the supply chain if the crisis drags on.

The industrial CRE sector is expected to remain largely resilient, however the industrial economy is likely to have a different experience. Certain types of manufacturers in the U.S. are disproportionately dependent on Chinese production for inputs and final goods. This means that supply chain effects could therefore surface via a few channels, but namely in delays for inputs and declines in external demand. Fortunately, manufacturers appear to have more room to dip into inventories in the near-term. The longer supply chain disruptions persist, the industries most dependent on Chinese inputs will be squeezed. This includes apparel, leather, computer and electronics manufacturing (and downstream industries). The good news is that these industries represent a smaller share of overall production and manufacturing inventory a small share of overall industrial inventory, softening the potential headline effects on both fronts. In no way do these near-term impacts derail the broader structural shift to eCommerce and the effects it is having on demand.



cushmanwakefield.com | 5

MARCH 2020

CUSHMAN &

PART ONE

MARCH 2020

CUSHMAN &

CONCLUSION

There are still many unknowns surrounding COVID-19. How long will the virus remain, how far will it spread? How many people will be affected? When will the health and medical community develop a vaccine? During this difficult time, we emphasize the fact that considerable resources are being directed to contain the virus and its impact.

First, global officials' coordinated response to contain the outbreak has been aggressive. Whenever an outbreak is reported, quarantines have quickly followed. Travel between nations has been monitored carefully and severely curtained. Foreign nations are also responding aggressively with the International Air Transport Association reporting at least 54 jurisdictions that have closed borders or imposed restrictions on Chinese nationals and travelers from mainland China as of February 13th. Cargo being shipped from China is being treated under special protocols, including heightened

inspections and, in some cases, quarantines. These efforts to contain the virus mitigate the probability of a larger and longer-lasting contagion and increase the likelihood of a quicker recovery.

Second, the Chinese government has far more dry powder and financial resources today compared to 20 years ago. For example, in 2003, China's foreign exchange reserves totaled \$400 billion; today they total \$3.1 trillion. The Chinese government is deploying that capital now, which will mitigate some of the economic damage from the virus. Further, multiple central banks and governments are standing by, closely monitoring financial and economic conditions and have signaled their readiness to act.

Third, the number of daily COVID-19 cases reported in China has been declining rapidly—from 900 new cases per day in early February to around 300 to 400 new daily cases

The global economy is bound to be impacted in the near term, but it will also benefit when pent-up demand resurfaces in the aftermath of the outbreak. reported toward the end of the month. Perhaps we have passed the turning point where the worst is over at the epicenter of the outbreak. The WHO has reported that the epidemic in China likely peaked in late January/early February, but it could still be classified as a pandemic as infections spread in other countries.

With any event like this, there is tremendous uncertainty, and our report indicates *possible* but not necessarily *probable* outcomes. The global economy is bound to be impacted in the near term, but it will also benefit when pentup demand resurfaces in the aftermath of the outbreak. CRE is likely to register

the effects in the form of the *timing*, rather than *level*, of demand across most parts of the world. We will continue to monitor developments and provide updates along the way.

KEVIN J. THORPE

Chief Economist, Global Head of Research +1 202 266 1161 kevin.thorpe@cushwake.com

REBECCA ROCKEY

Economist, Global Head of Forecasting +1 212 841 7508 rebecca.rockey@cushwake.com

About Cushman & Wakefield

Cushman & Wakefield (NYSE: CWK) is a leading global real estate services firm that delivers exceptional value for real estate occupiers and owners. Cushman & Wakefield is among the largest real estate services firms with approximately 53,000 employees in 400 offices and 60 countries. In 2019, the firm had revenue of \$8.8 billion across core services of property, facilities and project management, leasing, capital markets, valuation and other services. To learn more, visit www.cushmanwakefield.com or follow @CushWake on Twitter

© 2020 Cushman & Wakefield. All rights reserved. The information contained within this report is gathered from multiple sources believed to be reliable. The information may contain errors or omissions and is presented without any warranty or representations as to its accuracy.