SECOND QUARTER 2021

INTERNATIONAL REPORT

CONSTRUCTION MARKET INTELLIGENCE

RLB
Rider
Levett
Bucknall

INDEPENDENT CONSULTANTS, LOCAL KNOWLEDGE AND EXPERTISE, GLOBAL NETWORK

The strength of Rider Levett Bucknall (RLB), the largest independent and most geographically prevalent construction cost consultancy of its kind in the world, is that it has the foremost construction intelligence available to it.

RLB collects and collates current construction data and forecast trends on a global, regional, country, city and sector basis. The RLB International Report, published half-yearly, provides a snapshot of construction market intelligence provided by the RLB network of offices around the globe.

Each RLB office contributes to the global intelligence by providing current insights into the local conditions and trends that impact the construction industry within that region. Information that is gathered and disseminated by each local office includes:

- RLB Crane Index®
- Forecast Tender Price Index uplifts
- RLB Construction Market Activity Cycle
- Key building type cost ranges in local currencies

TENDER PRICE INDEX

RLB's Tender Price Index (TPI) showcases the historical and forecast movements in construction cost inflation/escalation on an annual basis. The TPI annual rate represents an overall forecast of the movement of construction costs for the industry as a whole within the key cities of RLB's network.

BUILDING COST

RLB's Building Cost Ranges can be found within the RLB website (www.rlb.com/ccc) or the RLB Intelligence Mobile App which are updated regularly.

Each region's Cost Intelligence publications also publish cost ranges and each publication can be found on www.rlb.com under the insights tab.

CONSTRUCTION MARKET INTELLIGENCE

A summary of Construction Market Intelligence is provided by each region highlighting the issues that are impacting the construction industry and providing key insights into current construction price movements.

RLB MARKET ACTIVITY CYCLE

The RLB Market Activity Cycle focuses on seven key sectors within the overall construction economy. Local RLB directors assess the current position of each sector within the market activity cycle for each respective city.

RELATIVITY INDEX

Using TPI data and cost modelling, RLB provides a general cost comparison for building costs between locations. The Relativity Index ranks each city in respect of other locations within the RLB network of offices. Currently forty-nine are included in the index.

RLB CRANE INDEX®

The RLB Crane Index® gives a simplified measure of the current state of the construction industry's workload in key locations around the world. RLB offices record fixed crane numbers across key cities by project sector, which provides an overview of how markets are changing over time.

Cover: 144 Oxford Office, South Africa

RLB publishes key industry intelligence publications throughout each year. For more detailed sector, city, country and regional information that is published by RLB, please review our regional or country specific publications which can be found within the publications section of **RLB.com**.

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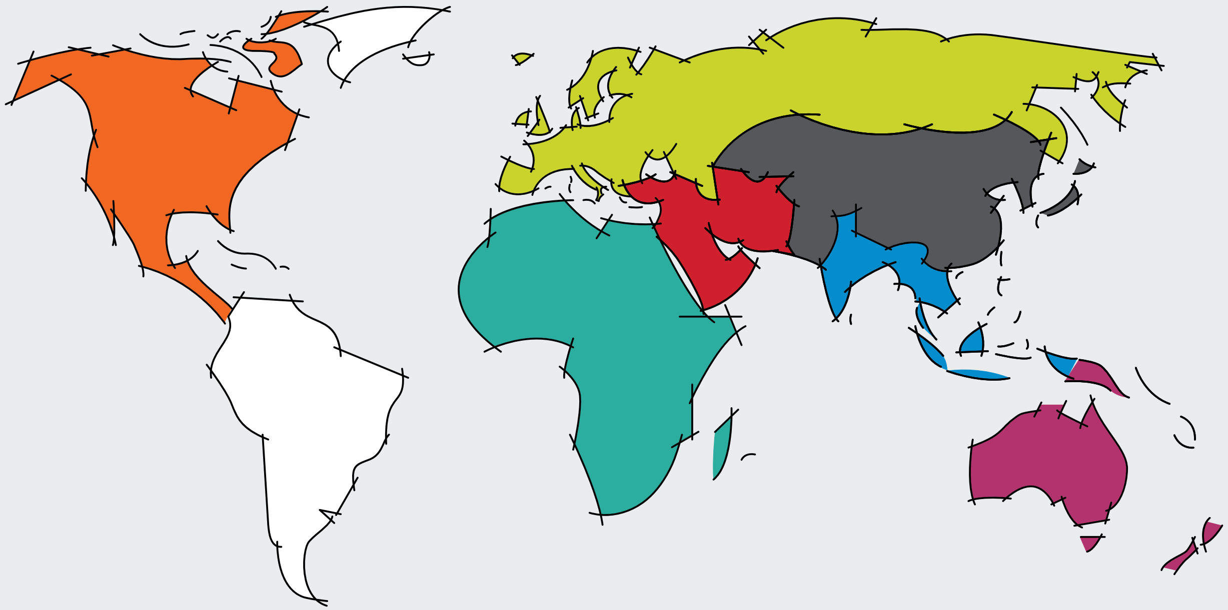


Each coloured region represents a section within the **Regional Intelligence** pages of this report.

EXECUTIVE SUMMARY

Since our last report, the world is seeing an improving outlook for global economic growth which is supported by increasing numbers of vaccinations, particularly in advanced economies, and continuing containment measures. At the start of 2021, global COVID-19 cases numbered 84 million, and nearing the end of May they stood at 169 million. The impact of the virus is affecting construction costs globally, with most regions seeing upward pressure on construction pricing. Global supply chains, disrupted during 2020, have not yet recovered to pre-COVID levels, with increased shipping costs and longer shipping times. Disruptions caused by COVID-19 lockdowns, Brexit and other global issues have seen most regions struggle to source cross-border construction workers to cater to the growing appetite for construction activity globally and construction orders' return to pre-COVID-19 levels.

The world's three largest economies (the United States, China, and Europe) are experiencing differing outcomes. The United States is seeing strong stimulus-fuelled demand combined with supply chain disruptions, fuelling inflation. Europe is seeing increased demand together with economic restrictions being relaxed causing a fast tracking of growth as well as inflation. China's GDP grew 7.9% (yoy) in 2nd Quarter 2021. Compared with the surge of 18.3% (yoy) in 1st Quarter 2021, the rebound has been slowing but remained strong given the jump in Q1 was on a low base effect. Even though some trading partners slowly moved back to normal and required less demand from China, its drop was offset by dual circulation strategy introduced by China's 25-member policymaking committee in mid-2020. China is positioning to rely more on domestic consumer spending, shifting its growth engine from state-led investment and exports.

Despite significant improvements to the overall outlook, the global economic recovery is likely to be uneven. In general, in coming years, advanced economies are expected to return closer to their pre pandemic trajectories for GDP than are emerging market economies. This reflects the broad trend of earlier vaccine access. By comparison, the outlook for emerging market economies is more varied. Slower vaccine rollouts will weigh on recoveries, particularly in regions that are experiencing high virus caseloads, or are more reliant on contact-intensive industries and international travel.

In our current global data capture, the majority of RLB offices have generally reported that much of the increase in construction cost inflation over the past six months has been due to a surge in the prices of commodities and inputs related to the surge in demand, especially in residential housing, and supply chain disruption. The shortfall in skilled workers within the construction sector in most regions was the second most commented-upon construction cost impact. Labour shortages, particularly among skilled labour, have led to delays and increased costs in construction work across all regions. Border lockdowns continue to constrain the availability of international workers, so causing shortages of skilled labour in the industry globally.

Border restrictions have also limited many regions' reliance on immigrant untrained labour in meeting current construction demand. Singapore, Malaysia, Qatar and UAE, who have traditionally relied on this form of untrained labour, continue to struggle to fill demand.

Within the US, leading economists believe people still fear both contracting and spreading the virus, while others prefer to receive unemployment benefits rather than what they would earn in available jobs.

Within the UK, a double dose of Brexit and COVID-19 impacts has fuelled a shortage of construction workers and materials. Parallel aspects of too many vacancies and too few candidates are being seen in the industry. The UK lost a quarter of its European-born construction workforce between January 2020 and January 2021, according to the Construction Products Association. The extension of the Furlough scheme has also been reducing people's motivation to fill vacancies. Post-Brexit immigration rules and immigration could limit the return to the UK of thousands of overseas workers who returned home during lockdowns, exacerbating the problem of limited available labour. Government responses indicate a preference toward the utilisation of training and apprenticeship program schemes to mitigate this issue, but of course, upskilling and training takes time. Key material shortages include steel, timber and cladding.

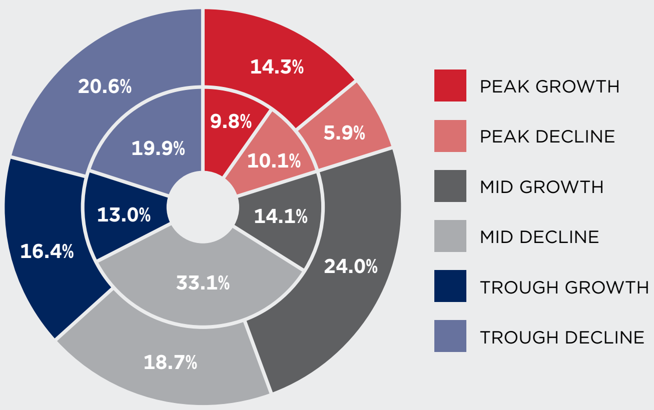
This action by the UK contrasts with that of Germany, where they are implementing the Skilled Immigration Act that will allow a streamlining process for mitigating skilled shortages in growth areas such as engineering. The return of European workers to their home countries is also providing opportunities of returning labour. Other EU countries are turning to training and education in order to supply the industry. This is seen in Ireland where there are reports of shortages in all trades and the government have committed to increased opportunities for more training and education instead of depending on overseas workers.

Within Australia, the Master Builders Australia reported that 78% of domestic home builders are reporting 'significant delays in being able to secure concreters, joiners and bricklayers' and 'an increase in up to 10% in the cost of materials and specialist trades or labour'. New Zealand has also implemented hard borders and the government is signalling a move away from 'low skill' migrant labour to fill necessary construction vacancies. However, with competition for skilled workers still strong, the lead time for upskilling domestic workers will take time.

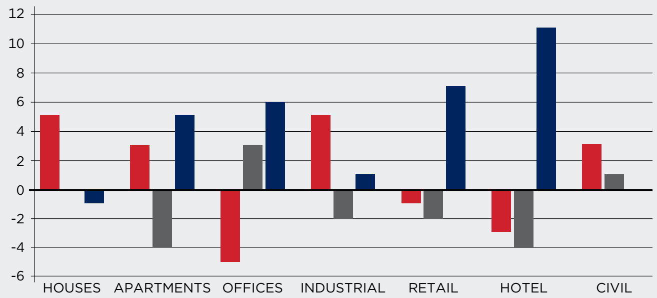
Generally, discussion has centred on border lockdowns causing the reduction of international workers that has caused shortages of skilled labour in the industry globally. Additionally, government incentives especially promoting new domestic housing have increased demand for skilled workers. Labour shortages coupled with global supply chain disruptions are adding pressure on construction costs around the globe.

GLOBAL MARKET SECTOR ACTIVITY

NUMBER OF GLOBAL SECTORS



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020



Since our last edition, all countries continue to be impacted by the COVID-19 pandemic. Even as some countries are loosening restrictions, the Delta variant is causing increasing concern in many countries where vaccination rates are low.

The responses of 68 RLB and affiliate offices across the globe that formed the basis of compiled market sector activity data, revealed a negative sentiment within the market.

Currently, 20.2% of sectors are within the peak zone, up from 19.9% previously. 42.7% of sectors are in the mid zone, down from 47.2% previously and the trough zone represents 37.0%, up from 32.9% previously. The trend globally is that the development cycle has moved backwards within the cycle. Almost all sectors have been impacted by the uncertainty and prevailing country responses to the pandemic.

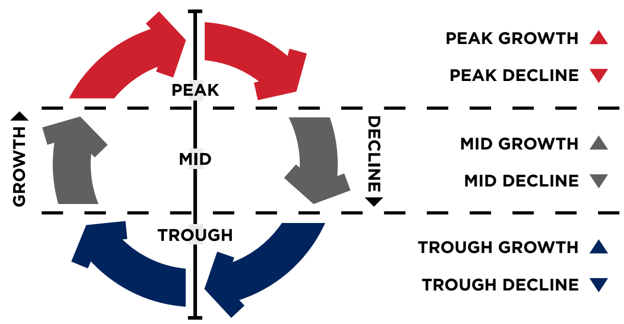
Of the seven key sectors that each office reports on, residential single-family houses, industrial and civil (infrastructure) sectors appear to be the least affected, by globally moving from the trough and mid zones towards the peak zone. This is evident as significant numbers of cities reported that activity within these sectors moved from being previously in decline to moving into the growth phase of the zone.

Across the globe the multi-level apartment sector is running at two distinct paces. Across the network 21 cities moved into the growth phase within the apartment market but 17 cities downgraded to the decline phase of the cycle.

This is also evident, but not to the same extent, within the offices, hotel and retail sectors which have all been significantly affected by the impact of the pandemic on people movement.

With a growing percentage of all sectors within the trough zone, the medium and long-term challenges facing the industry are growing. Given the changing working life patterns and consumer tourism and retail behaviours, the historical fundamentals behind the development of offices, retail shops and even tourism assets may be changing, and this is making investment decisions across the globe riskier.

RLB MARKET SECTOR ACTIVITY CYCLE



Activity within the construction industry traditionally has been subject to volatile cyclical fluctuations. The RLB Market Activity Cycle (cycle) is a representation of the development activity cycle for the construction industry within the general economy.

Within the general construction industry, RLB considers seven sectors to be representative of the industry as a whole. These sectors are: houses, apartments, offices, industrial, retail, hotel and civil.

Each sector is assessed as to which of the three zones (peak, mid and trough) best represents the current status of the sector within the cycle, then further refined by identifying whether the current status is in a growth phase or a decline phase.

GLOBAL MARKET SECTOR ACTIVITY

Overview

The 'up' and 'down' arrows within the tables represent whether the sector is in a growth or decline phase with the colour of the arrow determining the zone within the cycle. The three colours identified in the cycle diagram (red, grey and blue) represent the peak, mid and trough zones of the cycle.

	HOUSES	APARTMENTS	OFFICES	INDUSTRIAL	RETAIL	HOTEL	CIVIL
AFRICA							
CAPE TOWN	▲ grey	▼ grey	▼ grey	▲ grey	▼ grey	▼ blue	▲ grey
DURBAN	▲ grey	▲ red	▼ blue	▲ grey	▲ grey	▼ blue	▼ grey
GABORONE (BOTSWANA)	▲ grey	▲ grey	▲ grey	▲ grey	▲ grey	▲ blue	▲ grey
JOHANNESBURG	▲ blue	▲ blue	▼ grey	▼ blue	▲ blue	▼ grey	▼ grey
MAPUTO (MOZAMBIQUE)	▲ grey	▲ grey	▲ grey	▲ grey	▲ grey	▲ grey	▲ grey
MIDDLE EAST							
ABU DHABI	▼ grey	▼ red	▼ blue	▼ grey	▼ red	▼ red	▲ grey
DOHA	▲ grey	▼ grey	▼ grey	▲ red	▼ grey	▼ red	▲ grey
DUBAI	▼ blue	▼ blue	▼ blue	▲ grey	▼ grey	▼ blue	▼ blue
RIYADH	▲ blue	▲ blue	▲ blue	▲ blue	▲ blue	▲ blue	▲ blue
NORTH ASIA							
BEIJING	▼ blue	▲ blue	▼ grey	▲ blue	▼ grey	▼ grey	▲ red
CHENGDU	▼ red	▲ red	▲ grey	▼ blue	▲ blue	▲ grey	▲ red
GUANGZHOU	▼ blue	▲ red	▲ blue	▲ blue	▲ blue	▲ blue	▲ red
HONG KONG	▼ blue	▲ blue	▼ blue	▼ blue	▼ blue	▼ blue	▼ blue
MACAU	▲ red	▼ grey	▼ grey	▼ grey	▼ grey	▼ grey	▲ red
SEOUL	▲ blue	▲ grey	▼ grey	▲ grey	▼ red	▼ grey	▲ red
SHANGHAI	▼ red	▲ grey	▼ blue	▼ blue	▲ blue	▼ red	▲ blue
SHENZHEN	▼ grey	▲ grey	▼ grey	▲ grey	▼ red	▼ grey	▼ grey
SOUTHEAST ASIA							
HO CHI MINH CITY	▼ blue	▲ blue	▲ grey	▲ red	▲ blue	▼ grey	▲ blue
JAKARTA	▲ grey	▼ grey	▼ grey	▲ red	▼ grey	▼ grey	▲ grey
KUALA LUMPUR	▲ blue	▲ blue	▼ blue	▲ grey	▼ blue	▼ blue	▲ blue
SINGAPORE	▲ grey	▲ grey	▼ grey	▲ grey	▼ blue	▼ blue	▲ grey
AMERICA							
BOSTON	▲ grey	▼ grey	▲ blue	▲ grey	▼ blue	▼ grey	▲ red
CHICAGO	▼ grey	▼ grey	▼ grey	▼ red	▼ blue	▼ blue	▲ grey
DENVER	▼ grey	▼ blue	▲ grey	▲ grey	▲ red	▼ grey	▲ red
HONOLULU	▲ grey	▲ red	▼ blue	▲ grey	▼ blue	▼ blue	▲ grey
LAS VEGAS	▲ blue	▲ grey	▼ blue	▲ grey	▼ red	▼ blue	▲ grey
LOS ANGELES	▲ grey	▲ grey	▼ grey	▲ grey	▼ blue	▼ grey	▲ red
NEW YORK	▼ grey	▼ red	▲ red	▼ grey	▼ red	▼ red	▲ red
PHOENIX	▲ red	▲ red	▼ grey	▲ red	▲ blue	▲ blue	▼ red
PORTLAND	▼ red	▼ red	▲ blue	▲ blue	▼ blue	▲ grey	▲ grey
SAN FRANCISCO	▲ red	▲ grey	▼ blue	▲ grey	▼ blue	▲ blue	▲ grey
SEATTLE	▼ grey	▼ grey	▼ grey	▼ grey	▼ grey	▼ grey	▲ grey
WASHINGTON, D.C.	▲ blue	▼ grey	▼ grey	▼ red	▼ grey	▼ grey	▲ red
CANADA							
CALGARY	▼ grey	▼ grey	▲ grey	▲ red	▲ grey	▼ grey	▲ grey
TORONTO	▼ grey	▲ red	▲ grey	▲ grey	▼ grey	▲ grey	▲ red

	HOUSES	APARTMENTS	OFFICES	INDUSTRIAL	RETAIL	HOTEL	CIVIL
AUSTRALIA							
ADELAIDE	▼ grey	▼ red	▲ grey	▼ grey	▼ blue	▲ grey	▼ red
BRISBANE	▲ red	▲ blue	▲ blue	▲ red	▼ blue	▲ red	▲ grey
CANBERRA	▼ grey	▼ red	▼ grey	▲ grey	▼ blue	▲ blue	▼ blue
DARWIN	▲ grey	▼ blue	▼ blue	▲ blue	▼ blue	▲ blue	▲ red
GOLD COAST	▲ red	▲ blue	▼ blue	▲ red	▼ blue	▲ grey	▲ blue
MELBOURNE	▼ red	▼ blue	▼ blue	▼ red	▼ grey	▼ blue	▲ red
PERTH	▲ red	▼ red	▼ grey	▲ blue	▼ grey	▼ red	▲ grey
SYDNEY	▲ grey	▼ grey	▼ red	▼ red	▼ grey	▼ grey	▲ red
TOWNSVILLE	▲ red	▲ blue	▼ grey	▲ grey	▲ grey		▲ red
NEW ZEALAND							
AUCKLAND	▲ red	▼ grey	▼ grey	▲ red	▼ grey	▼ red	▲ red
CHRISTCHURCH	▲ blue	▲ blue	▼ blue	▼ blue	▼ blue	▼ blue	▲ grey
WELLINGTON	▲ red	▲ grey	▲ grey	▲ grey	▼ grey	▼ grey	▲ red
UNITED KINGDOM							
BIRMINGHAM	▲ grey	▲ grey	▲ grey	▲ red	▼ blue	▲ blue	▲ red
BRISTOL	▲ grey	▲ grey	▲ grey	▲ red	▼ blue	▼ grey	▲ grey
LEEDS	▲ grey	▲ red	▼ blue	▲ grey	▼ grey	▲ blue	▲ grey
LONDON	▲ blue	▲ blue	▲ grey	▲ red	▼ blue	▲ blue	▲ grey
MANCHESTER	▲ red	▲ red	▲ grey	▲ red	▼ blue	▼ blue	▲ grey
SHEFFIELD	▲ grey	▲ red	▼ blue	▲ grey	▼ grey	▼ blue	▲ grey
THAMES VALLEY	▲ blue	▲ blue	▲ grey	▲ red	▼ blue	▲ blue	▲ grey
IRELAND & MAINLAND EUROPE – Q4 2020							
AMSTERDAM	▲ blue	▲ blue	▲ blue	▲ red	▼ grey	▼ grey	▲ red
ATHENS	▼ blue	▼ blue	▼ blue	▼ blue	▼ blue	▼ blue	▼ blue
BERLIN	▼ blue	▼ blue	▲ grey	▲ red	▲ grey	▲ blue	▲ blue
BUDAPEST	▼ blue	▲ grey	▲ blue	▲ red	▲ blue	▲ blue	▲ red
COPENHAGEN	▲ red	▼ blue	▲ grey	▲ grey	▼ blue	▼ grey	▲ grey
DUBLIN	▲ red	▲ red	▼ grey	▲ grey	▼ blue	▼ blue	▼ grey
ISTANBUL	▼ blue	▼ blue	▼ blue	▲ red	▼ blue	▼ blue	▼ grey
MADRID	▲ blue	▲ blue	▼ blue	▲ blue	▼ blue	▲ blue	▲ grey
MILAN	▲ grey	▲ grey	▲ blue	▲ grey	▼ grey	▼ blue	▼ grey
MOSCOW	▲ red	▲ red	▼ blue	▲ blue	▼ blue	▲ grey	▼ grey
OSLO	▲ grey	▲ grey	▼ grey	▲ grey	▼ blue	▼ blue	▲ red
PARIS	▼ blue	▲ blue	▼ blue	▲ blue	▼ blue	▼ blue	▲ grey
PRAGUE	▲ red	▲ red	▲ grey	▲ blue	▼ blue	▼ blue	▲ blue
WARSAW	▲ blue	▲ blue	▲ blue	▲ red	▼ blue	▲ blue	▲ blue

University of Auckland (Grafton Campus) and Auckland Hospital, New Zealand

RLB TENDER PRICE INDEX

RLB's Tender Price Index (TPI) annual percentage change showcases the calendar year annual movement in general construction cost inflation/ escalation for the cities within the table. The TPI annual % change for 2020 represents our office's forecast of the movement of tendered construction costs for the industry as a whole, within the key cities of RLB's global network. The RLB Tender Price Index is an indexed-based representation of each key city's general construction escalation calculated on a monthly basis. Both historical and forecast escalation data is available for most key cities in our network from January 2000 through to December 2026.

The current forecasts within the table have been calculated with local intelligence concerning the many significant impacts of the COVID-19 pandemic that have impacted all regions across the globe. Obviously each country's response to the outbreak has been and is different causing differing impacts to construction escalation or de-escalation.

Forecasts are being updated regularly within our network with the most current forecasts available at www.rlb.com/ccc/ or via our mobile app, available to download at no cost, in both the Apple and Google stores worldwide.

	2020	2021 (F)	2022 (F)	2023 (F)	2024 (F)	2025 (F)
AFRICA						
CAPE TOWN	5.7	8.2	NP	NP	NP	NP
DURBAN	4.5	6.1	6.4	6.6	NP	NP
GABORONE	3.3	3.1	NP	NP	NP	NP
JOHANNESBURG	5.5	4.2	NP	NP	NP	NP
MAPUTO	1.1	3.1	NP	NP	NP	NP
PORT LOUIS	3.0	NP	NP	NP	NP	NP
MIDDLE EAST						
ABU DHABI	1.6	1.9	2.0	2.0	2.0	NP
DOHA	2.2	2.1	2.0	2.0	2.0	NP
DUBAI	1.6	1.9	2.0	2.0	2.0	NP
RIYADH	2.0	3.0	3.5	4.0	4.2	4.8
NORTH ASIA						
BEIJING	1.5	3.0	2.0	2.0	2.0	2.0
CHENGDU	2.0	3.0	3.0	3.0	3.0	3.0
GUANGZHOU	0.0	4.0	3.0	3.0	3.0	3.0
HONG KONG	(3.8)	0.0	1.0	2.0	2.0	2.0
MACAU	(6.0)	(2.0)	(1.0)	2.0	2.0	2.0
SEOUL	3.8	5.1	1.1	2.0	1.9	1.8
SHANGHAI	2.5	7.7	4.0	3.0	3.0	3.0
SHENZHEN	0.0	3.0	3.0	3.0	3.0	3.0
SOUTHEAST ASIA						
HO CHI MINH CITY	1.6	5.1	3.0	3.0	1.6	1.6
JAKARTA	3.0	5.0	NP	NP	NP	NP
KUALA LUMPUR	0.0	6.1	NP	NP	NP	NP
SINGAPORE	7.0	6.5	3.0	3.0	3.0	3.0
AMERICA						
BOSTON	3.2	6.2	6.0	5.5	5.0	4.5
CHICAGO	(1.3)	6.3	2.5	3.0	3.0	3.0
DENVER	1.3	4.6	4.0	3.8	3.5	3.3
HONOLULU	1.2	2.7	3.5	5.0	7.0	4.5
LAS VEGAS	1.5	4.7	4.0	3.5	3.5	3.0
LOS ANGELES	3.2	4.9	4.5	4.0	3.5	3.5
NEW YORK	3.2	4.9	4.0	4.5	4.0	4.0
PHOENIX	1.3	7.7	5.0	4.5	4.0	3.5
PORTLAND	1.1	7.1	6.0	5.0	4.0	3.0
SAN FRANCISCO	2.9	6.8	6.0	5.0	4.0	4.0
SEATTLE	1.7	3.3	3.0	3.5	3.5	3.5
WASHINGTON D.C.	2.6	5.0	4.0	4.5	4.5	4.5
CANADA						
CALGARY	4.6	7.5	4.5	4.0	4.0	4.0
TORONTO	6.1	10.0	4.5	4.0	4.0	4.0

	2020	2021 (F)	2022 (F)	2023 (F)	2024 (F)	2025 (F)
AUSTRALIA						
ADELAIDE	0.2	1.5	2.0	3.0	3.5	4.0
BRISBANE	(4.1)	4.1	3.0	3.0	3.0	3.0
CANBERRA	3.0	2.8	2.8	3.0	3.0	3.0
DARWIN	0.8	0.8	1.0	1.3	2.4	3.0
GOLD COAST	(3.5)	3.5	3.5	3.0	3.0	3.0
MELBOURNE	1.0	2.0	2.5	3.0	3.0	3.0
PERTH	1.5	4.0	3.0	3.0	3.0	3.0
SYDNEY	0.0	1.2	2.0	3.0	3.5	3.5
TOWNSVILLE	1.0	4.0	3.0	3.0	3.0	3.0
NEW ZEALAND						
AUCKLAND	(1.9)	5.0	4.0	2.5	2.5	2.5
CHRISTCHURCH	1.0	3.0	4.0	3.0	3.0	3.0
WELLINGTON	3.0	4.0	3.0	3.0	3.0	2.0
UNITED KINGDOM						
BIRMINGHAM	0.0	3.5	3.5	4.0	4.0	4.0
BRISTOL	0.5	2.0	4.5	5.0	4.5	4.5
LEEDS	2.8	3.2	3.8	3.8	3.8	3.8
LONDON	0.0	1.5	1.8	2.5	2.5	2.5
NORTH WEST	2.5	3.5	3.5	3.5	3.5	3.5
SHEFFIELD	2.6	3.0	3.6	3.6	3.6	3.6
THAMES VALLEY	0.0	1.5	1.5	2.5	2.5	2.5
IRELAND & MAINLAND EUROPE						
BERLIN	0.0	(1.0)	0.0	0.0	0.0	0.0
BUDAPEST	8.0	4.0	NP	NP	NP	NP
COPENHAGEN	3.0	2.0	1.5	1.5	1.5	1.5
DUBLIN	1.6	2.5	3.5	3.5	3.5	3.5
MADRID	0.1	NP	NP	NP	NP	NP
MOSCOW	2.0	9.8	NP	NP	NP	NP
PARIS	1.5	1.5	NP	NP	NP	NP
PRAGUE	2.5	3.0	NP	NP	NP	NP
WARSAW	3.2	3.5	3.4	3.7	NP	NP

RLB CRANE INDEX®

Overview

In September 2012, the Rider Levett Bucknall Oceania Research & Development and communication teams created the RLB Crane Index® as a simple insight into the construction sector's health within Australia. It was based on the theory that cranes in the sky supported the construction industry which is a significant contributor to Australia's economic growth.

The RLB Crane Index® has now grown and is published biannually in Australia, New Zealand, North America, North Asia, South East Asia, Southern Africa, England and Europe and annually in the Middle East. The index currently tracks the numbers of cranes in 58 key cities within the RLB network of offices across the globe. It is anticipated that during the coming year further RLB and affiliate offices will be contributing crane numbers to extend the coverage across the globe.

The RLB Crane Index® gives a simplified measure of the current state of the construction industry's workload in each of these locations. Each RLB office physically counts all fixed cranes on each city's skyline based on a defined area which provides the base information for the index.

AUSTRALIA CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
ADELAIDE	15	10	10	0.0%
BRISBANE	58	50	71	42.0%
CANBERRA	27	27	26	-3.7%
CENTRAL COAST	9	5	9	80.0%
DARWIN	1	-	-	-
GOLDCOAST	33	34	29	-14.7%
HOBART	4	-	-	-
MELBOURNE	196	177	193	9.0%
NEWCASTLE	17	13	9	-30.8%
PERTH	37	36	30	-16.7%
SUNSHINE COAST	11	15	16	6.7%
SYDNEY	299	297	286	-3.7%
WOOLONGONG	15	11	12	9.1%
AUSTRALIAN CITIES	**722**	**675**	**691**	**2.4%**

NEW ZEALAND CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
AUCKLAND	88	77	78	1.3%
CHRISTCHURCH	12	14	15	7.1%
DUNEDIN	1	-	-	-
HAMILTON	3	3	6	100.0%
QUEENSTOWN	12	11	15	36.4%
TAURANGA	5	3	4	33.3%
WELLINGTON	7	15	18	20.0%
NEW ZEALAND CITIES	**128**	**123**	**136**	**10.6%**

AMERICA CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
BOSTON	13	12	13	8.3%
CHICAGO	29	14	12	-14.3%
DENVER	25	18	22	22.2%
HONOLULU	9	8	10	25.0%
LAS VEGAS	17	4	2	-50.0%
LOS ANGELES	47	41	43	4.9%
NEW YORK	26	12	10	-16.7%
PHOENIX	9	16	9	-43.8%
PORTLAND	28	27	23	-14.8%
SAN FRANCISCO	33	24	11	-54.2%
SEATTLE	36	43	43	0.0%
WASHINGTON D.C.	25	38	45	18.4%
UNITED STATES CITIES	**297**	**257**	**243**	**-5.4%**

CANADA CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
CALGARY	37	34	35	2.9%
TORONTO	121	124	208	67.7%
CANADIAN CITIES	**158**	**158**	**243**	**53.8%**

MIDDLE EAST CITIES	Q4 2018	Q4 2019	Q4 2020	MOVEMENT % CHANGE
DUBAI	1,193	1,345	-	-100.0%
ABU DHABI	338	257	-	-100.0%
DOHA	468	401	-	-100.0%
MIDDLE EASTERN CITIES	**1,999**	**2,003**	**-**	**-100.0%**

AFRICAN CITIES	Q1 2020	Q1 2021	MOVEMENT % CHANGE
DURBAN	8	-	-
CAPE TOWN	29	-	-
STELLENBOSCH	6	-	-
JOHANNESBURG	36	-	-
PRETORIA	15	-	-
SOUTH AFRICAN CITIES	**94**	**-**	**-**

HONG KONG	Q1 2020		Q4 2020	MOVEMENT % CHANGE
HONG KONG ISLAND	27	-	23	-14.8%
KOWLOON	45	-	70	55.6%
NEW TERRITORIES	45	-	63	40.0%
HONG KONG CITIES	**117**	**-**	**156**	**33.3%**

SOUTH EAST ASIA	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
SINGAPORE	378	445	490	10.1%
JAKARTA	-	99	113	14.1%
HO CHI MINH CITY	-	115	106	-7.8%
KUALA LUMPUR	-	410	469	14.4%
YANGON	-	72	NC	-
SOUTH EAST ASIA CITIES	**378**	1,141	**1,178**	**-**

UNITED KINGDOM CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
BIRMINGHAM	20	18	-	-100.0%
BRISTOL	15	16	-	-100.0%
LEEDS	23	21	-	-100.0%
LIVERPOOL	7	6	-	-100.0%
LONDON	216	184	-	-100.0%
MANCHESTER	34	16	-	-100.0%
SHEFFIELD	7	10	-	-100.0%
UNITED KINGDOM CITIES	**322**	**271**	**-**	**-100.0%**

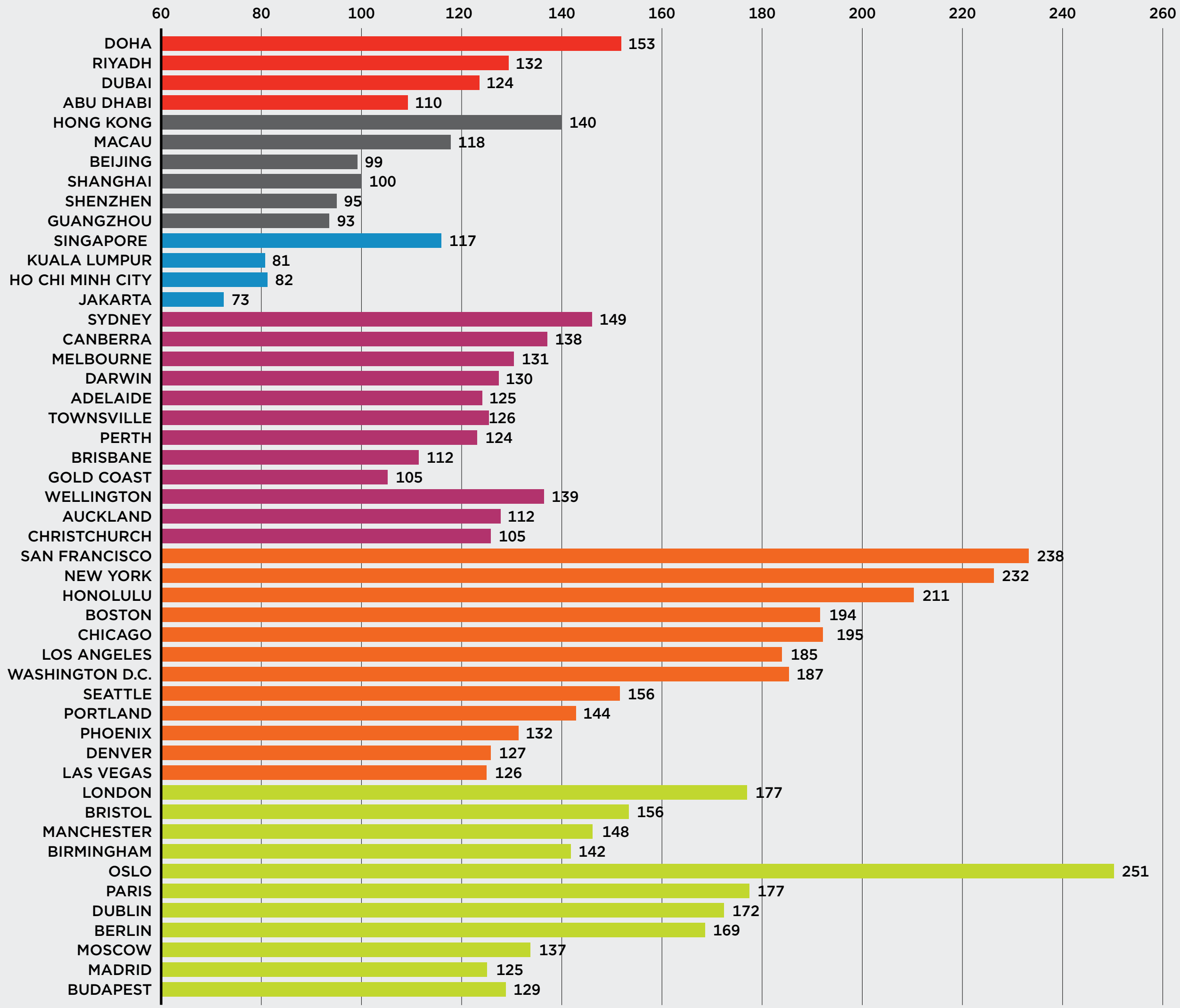
EUROPE CITIES	Q1 2020	Q3 2020	Q1 2021	MOVEMENT % CHANGE
PARIS	82	80	-	-2.4%
EUROPE CITIES	**82**	**80**	**-**	**-2.4%**

GLOBAL CONSTRUCTION COST RELATIVITY INDEX

RLB's Construction Cost Relativity Index identifies the relative cost of constructing similar buildings across the globe. The index is based on the local costing of standard building models/basket of goods. These are costed globally, and within regions, using the same quantities and similar specifications. They are costed in local currencies and relativities calculated using a combination of statistical methods including:

- Conversion into one currency method by converting local currency model costs using USD and IMF's published Purchasing Power Parity (PPP)
- RLB developed EKS multilateral index
- RLB Relativity Factor, a weighted sum of 'one currency' results

The resultant index highlights the relativity in construction costs between key global cities at Q2 2021



REGION	RELATIVITY INDEX	CITY	MOVEMENT	POSITION
MIDDLE EAST	15	DOHA	▶	0
	24	RIYADH	▲	2
	36	DUBAI	▲	2
	41	ABU DHABI	▶	0
NORTH ASIA	20	HONG KONG	▼	2
	38	MACAU	▼	3
	43	SHANGHAI	▶	0
	44	BEIJING	▶	0
	45	SHENZHEN	▶	0
	46	GUANGZHOU	▶	0
S.E. ASIA	39	SINGAPORE	▲	2
	47	HO CHI MINH CITY	▶	0
	49	KUALA LUMPUR	▶	0
	49	JAKARTA	▶	0
AUSTRALIA	16	SYDNEY	▶	0
	22	CANBERRA	▲	1
	26	MELBOURNE	▼	1
	27	DARWIN	▼	1
	32	TOWNSVILLE	▼	1
	35	ADELAIDE	▲	2
	37	PERTH	▲	1
	40	BRISBANE	▶	0
	42	GOLD COAST	▼	2
NEW ZEALAND	21	WELLINGTON	▼	1
	28	AUCKLAND	▼	3
	33	CHRISTCHURCH	▶	0
AMERICA	2	SAN FRANCISCO	▶	0
	3	NEW YORK	▶	0
	4	HONOLULU	▶	0
	5	CHICAGO	▼	1
	6	BOSTON	▲	2
	7	WASHINGTON D.C.	▼	2
	8	LOS ANGELES	▲	1
	14	SEATTLE	▶	0
	18	PORTLAND	▶	0
	25	PHOENIX	▲	2
	30	DENVER	▲	3
	31	LAS VEGAS	▼	1
UNITED KINGDOM	9	LONDON	▲	1
	13	BRISTOL	▶	0
	17	MANCHESTER	▲	1
	19	BIRMINGHAM	▲	1
EUROPE	1	OSLO	▶	0
	10	PARIS	▼	1
	11	DUBLIN	▲	1
	12	BERLIN	▼	1
	23	MOSCOW	▲	3
	29	BUDAPEST	▶	0
	35	MADRID	▼	5

Discovery Head office Development, Johannesburg, South Africa

CURRENT MARKET CONDITIONS

Currently there is a decrease in the demand for commercial office space due primarily to COVID-19. However, one sector that has increased in the past quarter is the residential market, more specifically the affordable housing market. The retail sector around new affordable housing developments is slowly recovering.

Developers are creating precincts which are mixed use, strip retail and restaurants within the precinct for residents. Examples of these types of developments include Jewel City and Barlow Park in Johannesburg.

Market insights include:

- The future demand for commercial office space is reducing due to remote working
- The demand for shopping centres (closed malls) is stagnant, there is increasing vacancy in closed malls. Shopping centre owners are refurbishing their better performing malls. The demand for neighbourhood type strip malls is increasing. Shoppers seem to prefer the smaller neighbourhood strip malls
- Investors' confidence in the current market is waning, with investors hesitant to invest in new projects due to the economic conditions and the policies of the current government around land reform in South Africa

The lifting of most lockdown restrictions that had been in place during the second quarter of last year has resulted in a V-shaped recovery for most key sectors of the economy, including construction, although the effects of the pandemic will linger on for much of this year.

A key indicator of the current recovery is the increasing value of building plans passed by the larger municipalities, which traditionally acts as a leading indicator for future building activity.

The residential sector is faring better than the non-residential sector in terms of confidence and activity.

CONSTRUCTION COST IMPACT

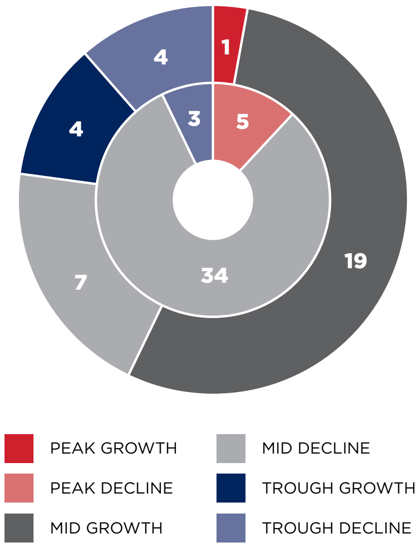
Building input prices have risen over the past few months as global demand far outstrips supply. These pressures have been in part offset by the strengthening of the rand to the US$ by more than 30% since the beginning of April 2020. The volatility of our currency remains a problem.

Due to COVID-19, there has been a great deal of pressure on locally manufactured material such as bricks and steel, causing an undersupply. The rates for these materials have increased drastically. With manufacturers and suppliers failing during the lockdown, their ability to supply materials has decreased. Profit margins for contractors are at an all-time low with some of the risk in the volatility of prices not always passed on to their clients.

RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
CAPE TOWN	*6.0%*	**8.2%**	*NP*	**NP**
DURBAN	*5.8%*	**6.1%**	*5.9%*	**6.4%**
GABORONE	*NP*	**3.1%**	*NP*	**NP**
JOHANNESBURG	*5.7%*	**4.2%**	*NP*	**NP**
MAPUTO	*NP*	**3.1%**	*NP*	**NP**
PORT LOUIS	*NP*	**NP**	*NP*	**NP**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

Amaala Marine Life Institute, Saudi Arabia

MIDDLE EAST

CURRENT MARKET CONDITIONS

The market generally slowed during the worse stages of the pandemic. Activity has increased recently, with more projects now getting the green light to go ahead.

Qatar continues to pursue more projects through a 'Design and Build' procurement method, which was previously rarely used.

There continues to be a learning curve for clients, consultants, and contractors.

Infrastructure works are still highly active, partly in preparation for the World Cup but also projects to upgrade and modernise existing infrastructure.

Key points for future growth within Qatar include:

- The ending of regional blockade should stimulate increased activity
- Increased drive for self-sufficiency should continue to grow the industrial sector
- Post World Cup activity

The UAE's construction sector fell by an estimated 4.8% in real terms in 2020, primarily due to the COVID-19 outbreak and lower global oil demand. The expectation is that the UAE construction industry will rebound in 2021, recording a growth of 3.1%, according to Research and Markets recent publication 'Key trends and Opportunities to 2025'.

The outlook remains positive for the construction industry due to with government initiatives such as the Energy Strategy 2050, the Sheikh Zayed Housing Program and the Dubai Tourism Strategy providing valuable long term commitments. Infrastructure projects are a key part of UAE's economic expansion, as the government seeks to construct efficient new transportation and logistic networks together with new developments in clean energy.

CONSTRUCTION COST IMPACT

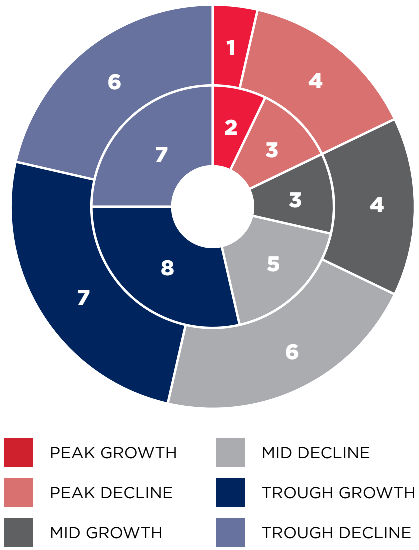
Some pressure has been applied to reduce costs due to the pandemic. In Qatar, TPI forecasts remains low for the next several years. However, costs may temporarily spike in the final stages leading to the World Cup.

Within the UAE there is an acute shortage of containers to get shipments from overseas. This is seeing an increase in freight costs, which is directly impacting the cost of materials used in projects. Prices of steel, copper, cement/concrete and even supplies like white goods, elevators have all increased due to rising shipping costs and global disruptions to supply chains.

RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
ABU DHABI	*1.9%*	**1.9%**	*2.0%*	**2.0%**
DOHA	*7.2%*	**2.2%**	*2.0%*	**2.0%**
DUBAI	*2.2%*	**1.6%**	*2.0%*	**2.0%**
RIYADH	*3.1%*	**2.0%**	*3.5%*	**3.5%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

Hong Kong Sports Park, China

NORTH ASIA

CURRENT MARKET CONDITIONS

Within China, Beijing's economy is anticipated to rebound from the coronavirus pandemic. The city's GDP grew by 17.1% year-on-year in the first quarter of 2021. Analysts have predicted that Beijing's GDP would grow 8 to 9% in 2021, meeting the national target of over 6% growth for the year.

The robust recovery of the economy is being facilitated by effective COVID-19 containment measures and the vaccination program, forceful public investment response and central bank liquidity support.

The GDP of Chengdu grew in the first quarter of 2021 by 17.3% year-on-year, demonstrating a substantial recovery from the pandemic. A large amount of infrastructure projects are under construction which are attempting to attract more investment in the fields of artificial intelligence, energy and resources, medical and automotive.

In the first quarter of 2021, total investment in residential and commercial projects in Shanghai was up by 32.5% and 18.5% respectively. Even though there was a drop of 5.9% in office development investment, the overall real estate investment in Shanghai climbed by 24.7% in terms of year-on-year comparison.

In 2020, Shenzhen's total construction output increased by 9.5% y-o-y. The total number of construction tenders increased by 3.7% and the tender value rose by 10.2% from a year earlier.

In the fourth quarter of 2020, Hong Kong experienced a fourth wave of the pandemic which further suppressed the recovery. Construction output in 2020 was below the past 10-year average. There was a significant drop in private construction due to the gradual reduction in private land sales. To address these issues, the government is encouraging conversion and re-development of aged industrial buildings to provide more floor area to meet the changing social and economic needs.

Macau's economy relies heavily on gambling and tourism. The significant drop in visitor arrivals during the epidemic period has adversely affected its economy. With a less optimistic economic outlook, construction investment by private sector shrank by 6.35% in real terms in Q4 2020.

The total construction investment in South Korea is expected to increase by 1.0% in 2021.

CONSTRUCTION COST IMPACT

In China, the price of major materials in Shanghai has been increasing over the past six months. Since the 4th quarter of 2020, the price of major materials has increased rapidly. Reinforced concrete is an example of the surge while its average price was up by 10% compared with its price a quarter earlier.

Despite the anticipated fierce competition in Beijing in the coming year, an uptick in construction costs is expected given rising labour costs and commodity prices.

In Shenzhen, labour costs are expected to rise in the long term despite only a slight increase observed this quarter, coupled with the upward trend of materials prices, the Tender Price Index will increase over the coming months.

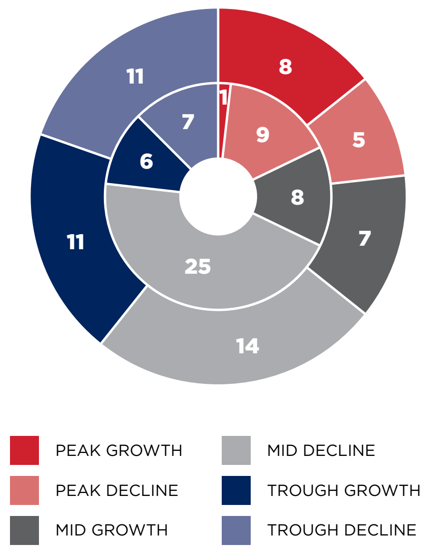
In Hong Kong and Macau, the trend of reducing construction output is expected to remain. Given the rising material costs, it is forecast that tender prices will continue to move moderately up or down within a narrow range in the next few quarters.

In Seoul, the pandemic has caused problems such as suspension of projects, delays in the supply of materials and shortages of labour which have led to increases in construction costs.

RLB TPI ANNUAL % MOVEMENT

	2021 PREV.	2021 CURR.	2022 PREV.	2022 CURR.
BEIJING	*3.0%*	**3.0%**	*2.0%*	**2.0%**
CHENGDU	*3.0%*	**3.0%**	*3.0%*	**3.0%**
GUANGZHOU	*4.0%*	**4.0%**	*3.0%*	**3.0%**
HONG KONG	*(2.0)%*	**0.0%**	*2.0%*	**1.0%**
MACAU	*(2.0)%*	**(2.0)%**	*2.0%*	**(1.0)%**
SEOUL	*2.3%*	**5.1%**	*1.1%*	**1.1%**
SHANGHAI	*3.0%*	**7.7%**	*3.0%*	**4.0%**
SHENZHEN	*3.0%*	**3.0%**	*3.0%*	**3.0%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

Bank of China Shanghai International Financial Building, China

CURRENT MARKET CONDITIONS

The Singaporean construction market appeared to be improving in the first quarter of 2021 with the easing of border restrictions for foreign workers to ease labour crunch since borders closed in the second quarter of 2020. However, an escalation of COVID-19 cases globally coupled with a heavy reliance on foreign workers from the South Asia region in the second quarter could potentially dim recovery prospects for the first half of 2021.

In Vietnam, the construction industry suffered a decline in the construction activity in the order of 50% to 70% in 2020. The office & retail market witnessed negative net absorption in 2020. However, with infrastructure pipelines that are expected to be complete by 2021 coupled with the COVID-19 vaccine rollout, the Vietnam office market is forecasted to recover. In the South, asking rents in industrial parks in HCMC, Binh Duong, Dong Nai and Long An increased 20% to 30%. At the same time, asking rents in industrial parks in the North such as Hai Phong, Bac Ninh and Hai Duong increased by 20% compared to 2019. Throughout Vietnam, industrial projects are in high demand.

The construction market in Jakarta is expected to resume growth in mid-2021 with a gradual recovery in Q3, after the downturn that occurred last year due to the COVID-19 pandemic.

The growth of the construction sector in Indonesia is predicted to develop positively at 8.7 per cent. Although the recovery in the construction market will be slow, there are still opportunities.

Recovery is on track through 2021 for Malaysia. However, if the hike in material prices persist beyond second half of 2021, developer's margins will be squeezed, which will likely cause private sector developers to hold back new construction activities as feasibilities are compromised due to higher inputs.

CONSTRUCTION COST IMPACT

In Singapore, the spike in selected material costs, due to the global construction boom and shortage of incoming foreign workers, have placed cost, time and performance pressures on the entire local construction industry. Disruptions to workflows continue to affect work sites, prolonging construction periods and decreasing productivity.

The adverse effects were slightly alleviated by the temporary act introduced by the parliament in which existing contracts were given a blanket 122-day time extension and a cost sharing mechanism was introduced so that no single party in the industry bore a disproportionate share of the financial burden due to the pandemic. Public sector projects were entitled to a further extension of time in the second quarter of 2021 while the act was further extended for another 6 months given the industry's uncertain outlook.

Within Vietnam the increase in metal prices including steel, metal sheet copper for electrical cable is impacting overall project costs. Other construction materials registered slight rise in cost. At the end of Q1 2021, the steel price increased by 40% from the end of 2020.

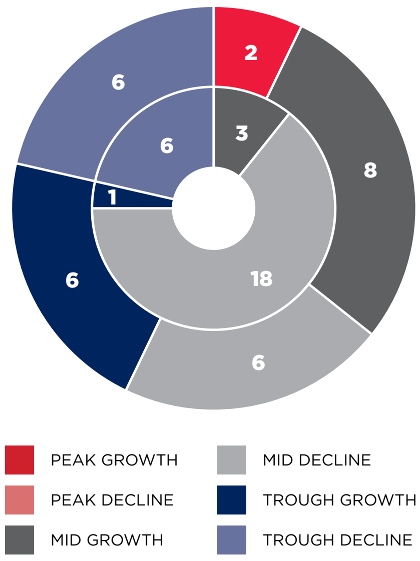
Current tender submissions in Jakarta from contractors, are seeing increases of 5% on average. Yet, unit-rates of most items are similar to last years costs. Material costs are almost the same as last year except for the price of structural steel which has increased by 20-25% and rebar which has increased by 18-20%.

Tender prices are increasing in Malaysia at a fast pace due to increases in material prices. Steel, timber, imported mechanical and electrical parts have seen a double digit hike in prices since 4Q 2020 due to supply disruption and spike in demand.

RLB TPI ANNUAL % MOVEMENT

	2021 PREV.	2021 CURR.	2022 PREV.	2022 CURR.
HO CHI MINH CITY	*3.0%*	**5.1%**	*3.0%*	**3.0%**
JAKARTA	*NP*	**5.0%**	*NP*	**NP**
KUALA LUMPUR	*NP*	**6.1%**	*NP*	**NP**
SINGAPORE	*6.5%*	**6.5%**	*3.0%*	**3.0%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

American Savings Bank Campus, North America

NORTH AMERICA

CURRENT MARKET CONDITIONS

During the COVID-19 pandemic construction activity in 2020 was deemed essential across the United States. While construction continued in most parts of the country, several factors are now impacting projects across the country.

Interruptions in the supply chain are putting operations and construction schedules at risk together with obtaining workers to complete current projects. These factors partly contributed to the fall in activity within the construction sector in the United States in 2020.

The impact of the coronavirus outbreak on housing construction has been reduced as sales continued. However, the unemployment rate in the country is still challenging and consumer confidence is still below pre-COVID-19 levels. As the infection rates are also rising again, several states are rolling back the reopening of economic activities.

A rebound in commercial building construction is projected to begin in 2021 on rising demand for goods and services, as vaccination rates increase and consumers return to normal routines. Residential building construction is forecast to continue growing at a strong pace this year.

President Biden's call for a $2 trillion investment package with a focus on transport infrastructure and clean energy to be deployed over the next eight years is likely to have a significant impact on construction output and growth across the US to 2025 and beyond.

CONSTRUCTION COST IMPACT

Despite the downward pressure caused by the perception of a slowing construction industry and the combined effect of material price increases and supply chain difficulties, cost escalation has returned to the familiar range of 1% per quarter (4% annualized).

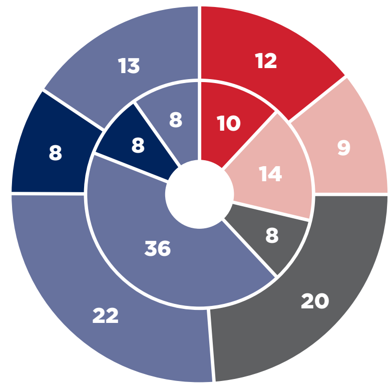
Over the past 12 months, the upward trajectory of material costs has been striking. The price of copper has almost doubled (from a low of $2.11/lb to $4.01/lb today), aluminum has risen from $0.73/lb in April 2020 to around $1.05/lb in March 2021, oil from a low of $14/barrel in April 2020 to $64/barrel in March 2021, while lumber skyrocketed briefly in August 2020, then slumped by November, only to return to nearly $1,000/mbf in March 2021.

Our research suggests that between January 1, 2020 and December 31, 2020, the national average increase in construction cost was approximately 1.82%. Boston, Los Angeles, New York, San Francisco, and Washington, D.C. experienced the greatest annual increases, showing escalation above the national average. Denver, Honolulu, Las Vegas, Phoenix, Portland, and Seattle experienced lower annual increases, ranging from 1.07% (Portland) to 1.70% (Seattle). Chicago is the only city that experienced a y-o y decrease of -1.29%.

RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
BOSTON	*3.0%*	**6.2%**	*3.5%*	**6.0%**
CHICAGO	*2.0%*	**6.3%**	*2.5%*	**2.5%**
DENVER	*2.5%*	**4.6%**	*3.0%*	**4.0%**
HONOLULU	*3.0%*	**2.7%**	*3.5%*	**3.5%**
LAS VEGAS	*3.0%*	**4.7%**	*3.5%*	**4.0%**
LOS ANGELES	*3.0%*	**4.9%**	*3.5%*	**4.5%**
NEW YORK	*3.5%*	**4.9%**	*4.0%*	**4.0%**
PHOENIX	*3.0%*	**7.7%**	*3.5%*	**5.0%**
PORTLAND	*2.5%*	**7.1%**	*3.0%*	**6.0%**
SAN FRANCISCO	*3.0%*	**6.8%**	*3.5%*	**6.0%**
SEATTLE	*2.5%*	**3.3%**	*3.0%*	**3.0%**
WASHINGTON D.C.	*3.5%*	**5.0%**	*4.0%*	**4.0%**
CANADA				
CALGARY	*3.0%*	**7.5%**	*3.5%*	**4.5%**
TORONTO	*5.0%*	**10.0%**	*4.5%*	**4.5%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

Calvary Adelaide Hospital, Australia

AUSTRALIA

CURRENT MARKET CONDITIONS

Construction activity in 2020 achieved higher than expected volumes across the country than forecast during the hard lockdown periods of mid-2020. While the continuing impacts of COVID-19 will affect future volumes of construction activity across the country, the full impact is difficult to quantify.

Activity within the apartment, office, hotel and retail sectors is seeing declines in the short to medium term after significant new additions to supply over the past three years. This is not surprising, given that these sectors are historically driven by strong net migration, influxes of international students, strong employment growth in the financial/service industries, and positive tourism activity—all of which have diminished since the outbreak of the COVID-19 pandemic in March 2020.

While there are major high-rise residential projects that are scheduled to be completed over the next twelve months, there are increasing signs that commencements may continue to decline due to demand concerns. The number of dwelling approvals for high rise apartments above nine storeys, fell by 20% in 2020 over 2019. This trend has continued during 2021 where a 14% drop in dwelling approval numbers was recorded for the first quarter of 2021 over the same period in 2020. This drop in approvals will flow on to projects commencing, adding pressure on contractors to maintain work.

Activity in low to medium scale apartment projects in the outer suburbs continues to be strong in all major cities, with new projects commencing and approvals maintaining their 2020 levels into 2021. The single dwelling housing market, which has been buoyed by first home buyer incentives, is recording record levels of activity across the country, with approvals up by 54% in the first quarter of 2021.

CONSTRUCTION COST IMPACT

Key escalation insights from RLB offices around Australia include:

- Supply chain disruptions
- Pricing at present seems to be stable, albeit with some increase in structural trades which contractors appear to be absorbing to win work. Labour wages also on the rise and some trade shortages are starting to appear
- Falling opportunities for tendering in the next six months appears to be a constant theme stated by contractors and key subcontractors
- Extremely competitive marketplace
- The mining and resource sector has increased workload and is starting to put upward pressure on labour costs
- Due to current border protection policy, it is unlikely that there will be significant inflow of labour from both overseas and interstate to offset the demand for additional labour in most states

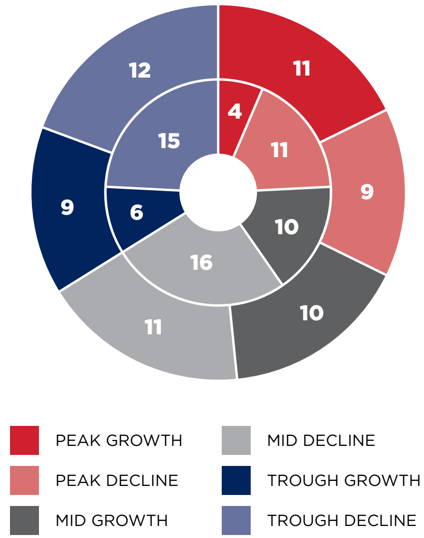
Price rises have occurred for concrete, steel, timber, masonry product supplies and PVC based products used in hydraulic and electrical trades. The raw material prices for metals such as copper and iron ore are reaching record heights. Such rises are prompting trades to link metal prices as a condition of tender pricing to provide an adjustment mechanism for any material price increases.

However, despite these price pressures, recent tender returns indicate that the full extent of price increases is not yet being passed on to clients.

RLB TPI ANNUAL % MOVEMENT

	2021 PREV.	2021 CURR.	2022 PREV.	2022 CURR.
ADELAIDE	*1.5%*	**1.5%**	*2.0%*	**2.0%**
BRISBANE	*2.0%*	**4.1%**	*3.0%*	**3.0%**
CANBERRA	*2.8%*	**2.8%**	*2.8%*	**2.8%**
DARWIN	*0.8%*	**0.8%**	*1.0%*	**1.0%**
GOLD COAST	*2.0%*	**3.5%**	*3.0%*	**3.5%**
MELBOURNE	*1.5%*	**2.0%**	*2.5%*	**2.5%**
PERTH	*2.7%*	**4.0%**	*3.0%*	**3.0%**
SYDNEY	*1.2%*	**1.2%**	*2.0%*	**2.0%**
TOWNSVILLE	*3.0%*	**4.0%**	*3.0%*	**3.0%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

University of Auckland - Waiparuru Hall, New Zealand

NEW ZEALAND

CURRENT MARKET CONDITIONS

The Auckland construction market has navigated the COVID-19 pandemic well. While there has been a decline in the volume of construction activity over the past year most contractors have been able to trade through what has been a challenging and uncertain time. That said over the last few months there have been significant supply chain issues post the pandemic causing delays, uncertainty, and increased cost.

Market sectors such as office, hotel and retail which have been strong over the last few years have rapidly declined because of the pandemic but there is renewed growth within the education, health and social housing sectors. The industrial and civil/infrastructure sectors also continue to be strong.

There remains a shortage of larger Tier 1 contractors in Auckland, and given the number of projects forecast over the $100m value this will be an issue in the foreseeable future. There is an increased focus on environmentally sustainable design and carbon reduction initiatives which will add some complexity to projects in the short term.

Commercial Construction activity in Christchurch remains strong due to ongoing major projects such as the Metro Sports complex and the newly awarded Multi Sports Arena. Health remains a strong area with a new Hospital Energy Centre, Mental Health Facility and other work around the Health Precinct.

Residential continues to perform with several apartment complexes continuing within the central city. Commercial and retail sectors remain reasonably flat while education continues to provide a steady pipeline of work going forward with the schools rebuild projects continuing. Other recent announcements include the new $100m Catholic Cathedral project in the CBD.

CONSTRUCTION COST IMPACT

Post the initial COVID-19 lockdowns and through the second half of 2020 and into 2021 generally tender prices in the small to mid-sized projects were competitive. We are now seeing other cost pressures within the industry led by significant supply chain issues and associated shipping costs, international commodity prices and increasing local labour and compliance costs.

We do not expect that supply issues and shipping costs will revert to some sort of normality for the next 12 to 18 months once the effects of the pandemic reduce. As governments stimulate other economies and as borders open, we expect that commodity prices however will remain high. The legislated rise in the minimum wage and skills shortages will continue to put pressure on labour costs particularly as the industry becomes busier towards the end of 2021 with the border likely to remain closed to migrant workers.

The initial post lockdown recovery and lower tender pricing seen in the middle to later part of last year has now passed. The booming residential sector and infrastructure spend coupled with higher material costs and labour costs will drive escalation over the next one to two years.

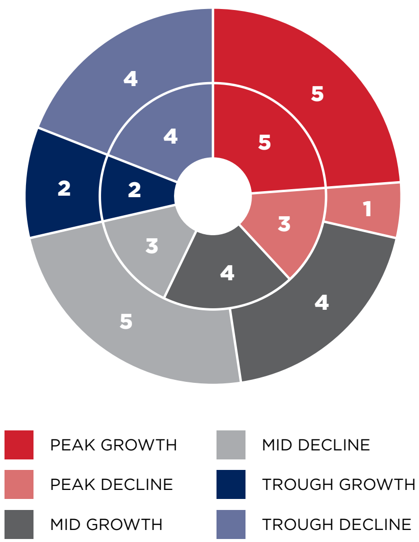
Our forecast for Auckland's TPI inflation over 2021 is 5% and remaining relatively high at 4.5% through until the end of 2022.

Recent TPI movements in Christchurch have been relatively flat and while there have been several isolated specific trade related cost increases, this has not been across the board. Recent indicators suggest cost pressures on steel due to both global and local drivers. These have resulted in sharp increases in both structural and rebar steel products. There have also been demand driven impacts on certain timber products.

RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
AUCKLAND	*4.0%*	**5.0%**	*3.0%*	**4.0%**
CHRISTCHURCH	*2.0%*	**3.0%**	*2.0%*	**4.0%**
WELLINGTON	*4.0%*	**4.0%**	*3.0%*	**3.0%**

MARKET SECTOR ACTIVITY



OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

School of Architecture and the Built Environment, Wolverhampton

UNITED KINGDOM

CURRENT MARKET CONDITIONS

The UK economy faltered in Q1 2021, due to the impacts of the third national lockdown on the services sector that accounts for 81% of UK GDP. For construction, however, activity accelerated in the first quarter of the year.

Sectors such as industrial & logistics and data centres remain extremely active, as the trends created by the pandemic appear to be here to stay for the longer term. Conversely, the hospitality, retail and aviation sectors are still reeling from the impact of the pandemic and their recovery will not materialise in the short-to-medium term.

In a reflection of the shift in the commercial and residential sectors, owners and investors are looking to repurpose vacant office space to residential, as demand for commercial space lessens and businesses look to reduce their footprint for the foreseeable future.

Infrastructure was least affected by the lockdown as it was considerably easier to implement site operating procedures and other safety measures on larger sites. In 2021, output is set to increase by up to almost 30%, reaching its highest level on record.

As we reach the end of the second quarter of the year, governments' emphases UK-wide are moving toward re-opening economy-wide, after high levels of vaccination, while staying abreast of increasing COVID case numbers.

CONSTRUCTION COST IMPACT

Client confidence is returning across all sectors, and several projects are coming off hold and progressing through the design stages. There is increased tender activity as more projects are coming to market, although tender returns remain very competitive as contractors look to secure workload for the rest of 2021 and into 2022.

We are currently experiencing major shortages and cost increases in materials, particularly cold rolled steel, timber and cement products. Large increases in lead-in periods for steel products are being experienced. As a consequence, there are notable increases in tender pricing on steelwork, mechanical and electrical installations and temporary accommodation. It is currently not clear whether this is an ongoing trend or just short-term due to high demand and some possible opportunistic pricing.

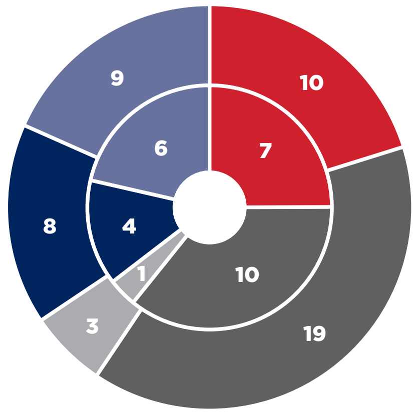
The Construction Leadership Council's product availability work group has said that, while supplies of plaster and plasterboard were much improved on last year, almost every other product group is experiencing longer lead times and higher prices. They further noted that this could cause significant delays to the progress of developments, in addition to tender price increases due partly to ongoing materials cost increases.

In overview, if current levels of input cost increases continue through the rest of the year, the viability of some projects may be called into question, as budgets could be outrun by the necessity of contractors and sub-contractors passing-through their input costs into tendered figures.

RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
BELFAST	*0.0%*	**0.0%**	*0.0%*	**0.0%**
BIRMINGHAM	*0.5%*	**3.5%**	*3.0%*	**3.5%**
BRISTOL	*1.5%*	**2.0%**	*4.5%*	**4.5%**
LEEDS	*3.2%*	**3.2%**	*3.8%*	**3.8%**
LONDON	*(1.0)%*	**1.5%**	*1.5%*	**1.8%**
MANCHESTER	*3.5%*	**3.5%**	*3.5%*	**3.5%**
SHEFFIELD	*3.0%*	**3.0%**	*3.6%*	**3.6%**
THAMES VALLEY	*(1.0)%*	**1.5%**	*1.5%*	**1.5%**

MARKET SECTOR ACTIVITY



PEAK GROWTH
PEAK DECLINE
MID GROWTH
MID DECLINE
TROUGH GROWTH
TROUGH DECLINE

OUTER RING – MARKET SECTORS AS AT Q2 2021
INNER RING – MARKET SECTORS AS AT Q4 2020

MAINLAND EUROPE

CURRENT MARKET CONDITIONS

In Europe, much of the region's reporting centres around responses to the COVID-19 situation. There is a broad recognition that markets' recovery is dependent on COVID-19 vaccination status, in that full vaccination provides sufficient protections population-wide to permit full economic recovery.

Site closures due to COVID-19 remain rare around Europe, occurring primarily due to positive test results and consequent closure and cleansing.

Many locations report ongoing and increasing problems of materials shortages and cost increases, although the extent to which these price increases pass through to tender price uplifts depends upon the particular local market circumstances.

In common with many of the European countries, according to the EU European Construction Sector Observatory, the Irish construction sector suffers from a shortage of skilled labour, requiring an additional 40,000 to 50,000 new construction workers until 2027. RLB offices across Europe mirror this view, which begs the question as to how to remedy the problem, given the spending commitments made by several European governments to re-stimulate economies after COVID. Germany's construction industry faces similar issues, set alongside a government commitment to major housing development. The Fachkräftestrategie, supporting skilled immigration from third world countries is an effort to mitigate the problem, together with intra-European union migration.

RLB Berlin reports that, in some cases, alternative materials are being instructed when the ones originally specified, particularly if imported, are suffering delays in transportation. This is a theme that is common regionally and globally, as almost all locations report problems with supply of imported materials. This, in turn, exerts pressure on local production in-country, to avoid imports, particularly sea-borne imports. By way of corollary, Budapest reports overall shortages of materials and consequent rising costs.

France displays similar problems and is accordingly committed to residential construction, with the Grand Plan d'investissement promoting both residential and infrastructure investment.

Italy faces similar problems in fulfilling government housing and infrastructure initiatives against a background of political pressures, post-COVID budgeting and public sector spending priorities. In the Netherlands, labour availability is one of two main issues, as well as some major infrastructure projects having been delayed due to problems in meeting EU legislative obligations. Spain also has labour, particularly skilled labour, shortages, which will only be exacerbated by project work derived from EU support funding post-COVID. Portuguese construction faces a similar situation, with government support for both residential and non-residential construction standing alongside craft labour shortage concerns.

In Eastern Europe, labour shortages exist along similar lines to those of western Europe, but with the additional difficulty of export of skilled labour to other European locations providing higher wage levels. This has been offset to some extent by the return of many skilled personnel from the UK to European countries of origin after Brexit, but nonetheless is an ongoing issue.

Overall, European construction generally can look forward to a speedy recovery after COVID, depending on levels of inoculation. Workload seems to be available in abundance in most locations, but concerns exist regarding labour availability to carry through the work, and materials availability. The pricing mechanism can only ration the work, it cannot solve the underlying problem of shortage of supply of labour and materials, so the result may be some jostling between private sector and public sector construction clients for access to resources. Presumably attendant upcoming escalation of tender prices will become more reflective of the supply and demand constraints on the input side of the equation than is currently the case, as economies are feeling their way out of the pandemic.

Q2 2021 TPI% RANGE

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
BERLIN	*(1.0)%*	**(1.0)%**	*0.0%*	**0.0%**
BUDAPEST	*4.0%*	**4.0%**	*NP*	**NP**
COPENHAGEN	*2.0%*	**2.0%**	*1.0%*	**1.0%**
DUBLIN	*2.5%*	**2.5%**	*3.5%*	**3.5%**
MOSCOW	*9.8%*	**9.8%**	*NP*	**NP**
PARIS	*1.5%*	**1.5%**	*NP*	**NP**
PRAGUE	*3.0%*	**3.0%**	*NP*	**NP**
WARSAW	*3.5%*	**3.5%**	*3.5%*	**3.5%**

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