



FOURTH QUARTER 2021

# INTERNATIONAL REPORT

CONSTRUCTION MARKET INTELLIGENCE

# INDEPENDENT CONSULTANTS, LOCAL KNOWLEDGE AND EXPERTISE, GLOBAL NETWORK

As the largest independent and most geographically prevalent construction cost consultancy of its kind in the world, Rider Levett Bucknall (RLB) has access to the foremost construction market intelligence.

RLB collects and collates construction data and forecast trends—on a global, regional, country, city and sector basis—from its comprehensive network of offices around the globe. The RLB International Report, which is published half-yearly, presents a snapshot of this data.

Each RLB office contributes to the global intelligence, providing insights into the conditions and trends that impact the local construction industry. The information gathered and disseminated by each 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.

## RLB MARKET ACTIVITY CYCLE

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

## BUILDING COST

RLB's Building Cost Ranges can be found via the RLB website ([www.rlb.com/ccr](http://www.rlb.com/ccr)) or the RLB Intelligence Mobile App, both of which are updated regularly. Each region's Cost Intelligence publications also feature cost ranges and can be found via [www.rlb.com](http://www.rlb.com) under the insights tab.

## 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 RLB Relativity Index.

## 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.

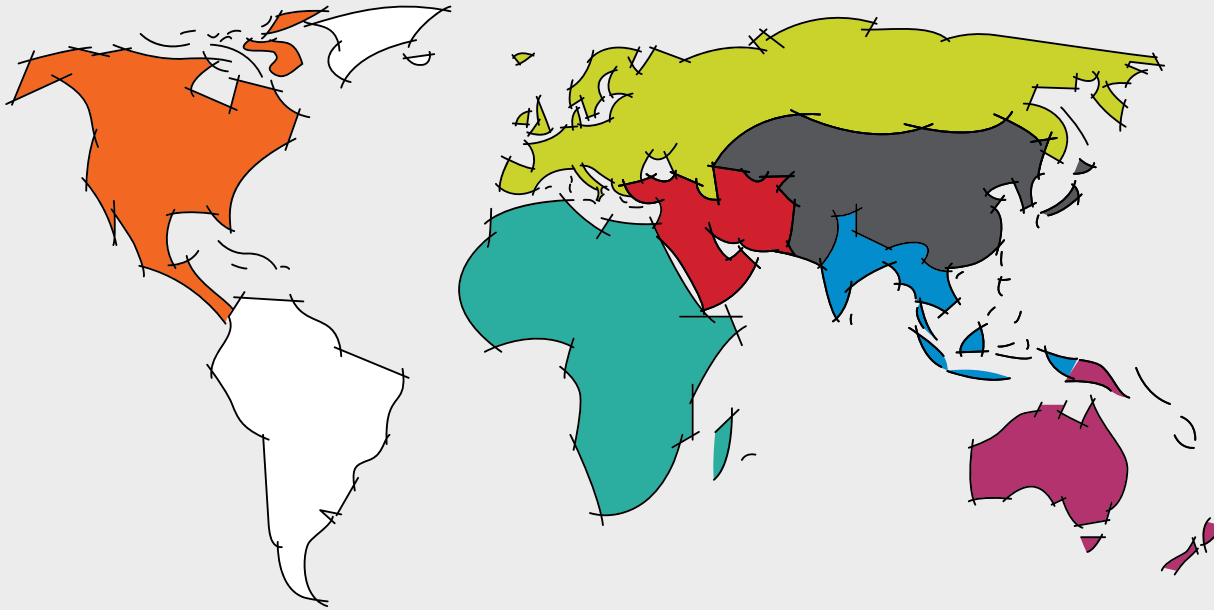
## RLB CRANE INDEX®

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

Cover Image: PwC Tower, Commercial Bay, Auckland, New Zealand

RLB publishes key industry intelligence publications throughout each year. For more detailed sector, city, country and regional information, please review our regional or country specific publications which can be found within the insight section of [RLB.com](http://RLB.com).

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# EXECUTIVE SUMMARY

As we near two years since the outbreak of the COVID-19 pandemic, construction economies across developed nations appear to be returning to pre-pandemic volumes. The tremendous success of COVID-19 vaccines has allowed economies to reopen, without achieving herd immunity thresholds. Almost all countries are now implementing sustainable solutions as they learn to live with the virus.

As we see more countries avoiding lockdowns and borders re-opening, the prospect of a snap-back recovery in 2022 is looking more positive. The advent of successive waves of viral infection has resulted in varying economic recovery shapes. Some economies show a V-shape recovery, while others more closely resemble a W shape. In other economies, where multiple lockdowns and re-opening have been experienced, a saw-tooth profile is evident. Regardless of which recovery profile exists, the overall outcome is one of recovery, with workload increases attributable to economic stimulus packages. That said, the global building and construction industry is not out of danger just yet. The possibility of further waves of COVID-19 variants is ever present, particularly with low vaccination rates in specific regions and the re-commencement of international travel. All these factors could still impact on recovery measures well into 2022.

Within the RLB network, the general sentiment is that market activity is positive. Sectors across the globe are reporting more than a 10% rise, moving from the decline phase into the growth phase. This rise is clear in the Market Sector Activity survey (full details on page 6). This positive sentiment is coupled with a general increase in construction costs. Almost all RLB offices are reporting higher construction costs through 2021 and into 2022 when compared with figures reported six months ago. The common issues causing these increases in tender prices are shortages of labour, higher construction material prices, and increased activity.

In Africa, record low interest rates and the changing paradigm of working in the office versus working from

home is causing an uplift in residential activity. Across the Middle East (with the UAE and Qatar the first countries to welcome back international visitors and guests earlier this year), major projects that had been put on hold are starting to fire up again.

Across Asia, growth in 2021 has been due largely to significant government spending and funding across the public sector.

In North America, the residential sector has been key to the overall economic recovery of the region.

Similar themes have been observed across the UK, Australia and Europe, with growth assisted by government spending on public sector and infrastructure projects and government incentives for the residential market. New Zealand, which observed a downward trend in activity, is still at relatively high levels compared to a few years prior to the pandemic.

The RLB Market Sector Activity survey displays mixed results for some sectors. Those sectors heavily impacted by the pandemic remain generally subdued across most regions, particularly offices, hotels and retail.

The global trends are:

- According to the World Health Organisation (WHO) and leading epidemiologists, the potential of further wave of COVID-19, caused by new variants, is a distinct possibility
- The ongoing trade tensions experienced between China, the USA and others causing global construction material shortages and cost increases
- Higher oil prices are adding pressure to rising inflationary effects
- The ability to achieve consensus on global initiatives to combat climate change at the COP 26 United Nations Climate Change Conference in Glasgow
- The continuing loss of skilled construction workers through both an aging demographic and restrictive borders.

As reported in our previous edition, the same factors are causing the major challenges to the industry across all regions. Labour shortages, supply chain issues and higher costs for materials are not just localised issues but appear as worldwide inhibitors due to the globalisation of both construction supply chains and labour flows across regions.

The RLB Market Sector Activity survey displays mixed results for some sectors, as those sectors heavily impacted by the effect of the pandemic, namely offices, hotels and retail remain generally subdued across most regions. Generally, the global trends are:

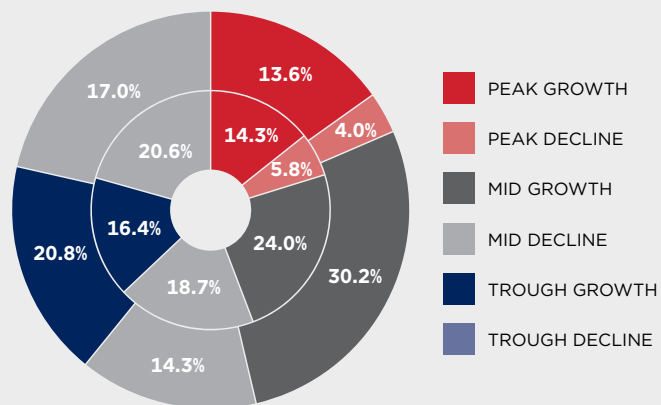
- New single dwelling family homes continue to remain extremely strong
- Commercial construction within the offices, hotels and retail sectors appears to be weaker. These sectors have been impacted by increased reliance on working from home and online shopping
- Social infrastructure and higher levels of renewable energy projects are benefiting from current and future government inputs
- Manufacturing, food, logistics and pharmaceutical related construction is expected to see reasonable growth.

The impact of the COVID-19 pandemic on labour cannot be overstated. The lack of skilled worker movement across regions has caused significant issues, not only from a cost point of view, but also in terms of productivity. Most regions have reported labour shortages, resulting in pressure to keep pace with the rise in activity.

As we look forward into 2022 and beyond, sentiment across regions remains positive but cautious. The general global outlook is for activity to continue its upward trend with costs to follow suit. RLB's predicted Tender Price Index annual uplifts for 2022 and the remainder of 2021 have generally increased from that forecast six months ago.

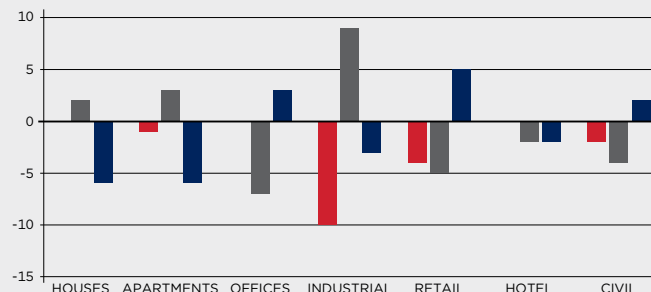
# GLOBAL MARKET SECTOR ACTIVITY

NUMBER OF GLOBAL SECTORS

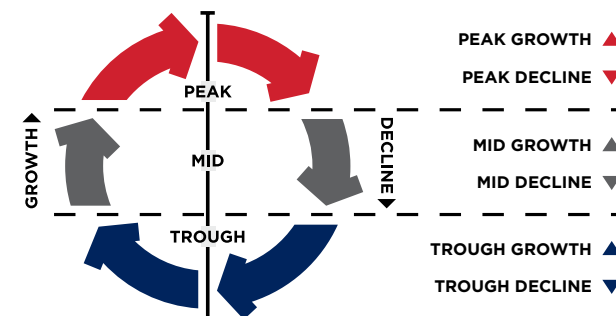


OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021

GLOBAL - MARKET SECTOR ACTIVITY  
NET SECTOR MOVEMENT FROM Q2 2021 TO Q4 2021



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.

Since our last edition, there has been a small decline in market sentiment across the consolidated responses of 64 RLB and affiliated offices across the globe. Even with a movement of 28 sectors into the growth phase in the activity cycle, there was negative movement in nine sectors from the peak zone downwards within the cycle.

Currently, 19% of all sectors are in the peak zone, which is down from 20% six months ago. 43% of sectors are in the mid zone, the same as previously reported and the trough zone represents 39%, up from 37%. The trend globally is that the development cycle has moved downward again within the cycle. Almost all sectors have been impacted by the uncertainty and prevailing country responses to the COVID-19 pandemic.

Of the seven key sectors on which RLB reports, the residential (both houses and apartments) and industrial and civil (infrastructure) sectors recorded the greatest number of RLB offices reporting peak zone activity.

With more than a third (39%) of all sectors within the trough zone, the medium and long-term challenges for the construction industry will be quite substantial and far-reaching. The converse to this is that a significant number of sectors have moved from the decline phase to growth phase. This indicates that movement upwards within the activity zones will occur in the foreseeable future if current economic conditions are maintained.

# GLOBAL MARKET SECTOR ACTIVITY

## Overview

The 'up' and 'down' arrows within the tables represent whether the sector is in a growth or decline phase. The colour of the arrow determines 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
<b>AFRICA</b>							
CAPE TOWN	▲	▲	▼	▲	▼	▲	▲
DURBAN	▲	▲	▼	▼	▲	▼	▼
GABORONE (BOTSWANA)	▲	▲	▲	▲	▲	▲	▲
JOHANNESBURG	▲	▲	▼	▲	▲	▼	▼
MAPUTO (MOZAMBIQUE)	▲	▲	▲	▲	▲	▲	▲
<b>MIDDLE EAST</b>							
ABU DHABI	▼	▼	▼	▼	▼	▼	▲
DOHA	▲	▼	▼	▲	▼	▼	▲
DUBAI	▲	▼	▼	▲	▼	▼	▼
RIYADH	▲	▲	▲	▲	▲	▲	▲
<b>NORTH ASIA</b>							
BEIJING	▼	▼	▲	▲	▲	▼	▲
CHENGDU	▼	▲	▲	▼	▲	▲	▲
GUANGZHOU	▼	▲	▲	▲	▲	▼	▲
HONG KONG	▲	▲	▲	▲	▲	▲	▲
MACAU	▲	▼	▼	▼	▼	▼	▲
SEOUL	▲	▲	▼	▼	▼	▼	▼
SHANGHAI	▼	▼	▲	▼	▲	▼	▲
SHENZHEN	▼	▲	▼	▲	▼	▼	▲
<b>SOUTHEAST ASIA</b>							
CEBU	▲	▲	▲	▲	▲	▲	▲
HO CHI MINH CITY	▼	▼	▼	▲	▲	▼	▲
JAKARTA	▲	▲	▼	▲	▼	▲	▲
KUALA LUMPUR	▲	▲	▼	▲	▼	▲	▲
MANILA	▲	▲	▲	▲	▲	▲	▲
SINGAPORE	▲	▲	▼	▲	▼	▲	▲
<b>AMERICA</b>							
BOSTON	▲	▲	▲	▲	▼	▼	▲
CHICAGO	▲	▲	▼	▲	▼	▼	▲
DENVER	▼	▼	▼	▲	▼	▼	▲
HONOLULU	▲	▲	▼	▲	▼	▲	▲
LAS VEGAS	▲	▲	▼	▲	▼	▼	▲
LOS ANGELES	▲	▲	▼	▲	▼	▲	▲
NEW YORK	▼	▼	▼	▲	▼	▲	▲
PHOENIX	▲	▲	▼	▲	▲	▲	▼
PORTLAND	▲	▲	▲	▲	▲	▲	▲
SAN FRANCISCO	▲	▲	▲	▲	▼	▲	▲
SEATTLE	▲	▲	▼	▼	▼	▼	▲
WASHINGTON, D.C.	▼	▼	▼	▼	▼	▲	▲
<b>CANADA</b>							
CALGARY	▲	▲	▼	▲	▲	▼	▲
TORONTO	▼	▼	▼	▲	▲	▲	▲

	HOUSES	APARTMENTS	OFFICES	INDUSTRIAL	RETAIL	HOTEL	CIVIL
<b>AUSTRALIA</b>							
ADELAIDE	▲	▼	▲	▲	▲	▲	▲
BRISBANE	▲	▲	▲	▲	▼	▲	▲
CANBERRA	▲	▼	▲	▲	▲	▲	▲
DARWIN	▲	▼	▼	▲	▼	▼	▲
GOLD COAST	▲	▲	▲	▲	▼	▲	▲
MELBOURNE	▼	▲	▼	▼	▼	▼	▲
PERTH	▲	▼	▼	▲	▼	▼	▲
SYDNEY	▲	▲	▼	▲	▼	▼	▲
TOWNSVILLE	▼	▼	▼	▼	▼	▲	▲
<b>NEW ZEALAND</b>							
AUCKLAND	▲	▼	▼	▲	▼	▼	▲
CHRISTCHURCH	▲	▲	▼	▼	▼	▲	▲
WELLINGTON	▲	▲	▲	▲	▼	▼	▲
<b>UNITED KINGDOM</b>							
BIRMINGHAM	▲	▲	▲	▲	▼	▲	▲
BRISTOL	▲	▲	▼	▲	▼	▲	▲
LEEDS	▲	▲	▲	▲	▼	▲	▲
LONDON	▲	▲	▲	▲	▼	▲	▲
MANCHESTER	▲	▲	▲	▲	▼	▲	▲
SHEFFIELD	▲	▲	▲	▲	▼	▲	▲
THAMES VALLEY	▲	▲	▼	▲	▼	▲	▲
<b>IRELAND &amp; MAINLAND EUROPE</b>							
BERLIN	▼	▼	▲	▲	▲	▲	▲
DUBLIN	▲	▲	▲	▲	▲	▲	▼
LISBON	▲	▲	▲	▲	▼	▼	▲
MADRID	▲	▲	▼	▲	▼	▲	▲
MILAN	▲	▲	▲	▲	▲	▲	▲
PARIS	▼	▲	▼	▲	▼	▼	▲



# RLB TENDER PRICE INDEX

RLB's Tender Price Index (TPI) annual percentage change showcases the movement in general construction cost inflation and escalation year-on-year.

The TPI annual percentage change for 2021 represents RLB'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 general construction escalation, calculated on a monthly basis, in key cities across the RLB network. Both historical and forecast escalation data is available from January 2001 through to December 2026 via the RLB website ([www.rlb.com/ccc](http://www.rlb.com/ccc)) or the RLB Intelligence Mobile App.

	2019	2020	2021 (F)	2022 (F)	2023 (F)	2024 (F)
<b>AFRICA</b>						
CAPE TOWN	5.0	5.7	8.2	NP	NP	NP
DURBAN	5.0	4.5	6.1	9.4	6.6	NP
GABORONE	3.2	3.3	3.1	4.1	NP	NP
JOHANNESBURG	5.1	5.5	4.2	NP	NP	NP
MAPUTO	1.0	1.1	3.1	4.1	NP	NP
PORT LOUIS	3.5	3.0	NP	NP	NP	NP
<b>MIDDLE EAST</b>						
ABU DHABI	2.2	1.6	1.9	2.5	3.0	3.0
DOHA	7.2	2.2	2.5	2.0	2.0	2.0
DUBAI	2.2	1.6	1.9	2.5	3.0	3.0
RIYADH	3.1	2.0	3.0	5.0	6.5	7.0
<b>NORTH ASIA</b>						
BEIJING	2.0	1.5	5.0	2.0	2.0	2.0
CHENGDU	0.9	2.0	3.0	3.0	3.0	3.0
GUANGZHOU	0.0	0.0	4.1	4.0	3.0	3.0
HONG KONG	(4.1)	(3.8)	4.9	4.0	4.0	4.0
MACAU	(4.1)	(6.0)	(2.0)	(1.0)	2.0	2.0
SEOUL	3.0	3.8	5.1	1.1	2.0	1.9
SHANGHAI	(1.5)	2.5	7.8	4.0	4.0	3.5
SHENZHEN	2.0	0.0	4.0	3.0	3.0	3.0
<b>SOUTHEAST ASIA</b>						
CEBU	1.6	2.0	2.0	2.8	3.0	3.0
HO CHI MINH CITY	1.1	1.6	2.7	3.0	3.0	1.6
JAKARTA	3.0	3.0	5.0	NP	NP	NP
KUALA LUMPUR	1.5	0.0	6.1	NP	NP	NP
MANILA	1.6	2.0	2.0	2.4	2.8	2.9
SINGAPORE	0.9	7.0	10.0	5.0	3.0	3.0
<b>AMERICA</b>						
BOSTON	4.4	3.1	7.8	5.5	5.5	5.0
CHICAGO	5.5	(1.3)	7.4	3.0	3.0	3.0
DENVER	4.1	1.3	4.8	4.0	3.8	3.5
HONOLULU	6.1	1.2	3.2	3.5	4.0	5.0
LAS VEGAS	4.9	1.5	5.9	4.0	3.5	3.5
LOS ANGELES	2.0	3.2	6.3	4.5	4.0	3.5
NEW YORK	5.4	3.2	7.0	5.0	5.0	4.5
PHOENIX	4.7	1.3	7.9	5.0	4.5	4.0
PORTLAND	5.1	1.1	7.6	5.0	5.0	4.0
SAN FRANCISCO	7.2	2.9	5.5	5.0	5.0	4.0
SEATTLE	5.6	1.7	7.0	3.0	3.5	3.5
WASHINGTON D.C.	4.3	2.6	7.9	4.0	4.5	4.5

	2019	2020	2021 (F)	2022 (F)	2023 (F)	2024 (F)
<b>CANADA</b>						
CALGARY	0.0	4.5	8.7	4.5	4.0	4.0
TORONTO	13.7	6.0	10.9	4.5	4.0	4.0
<b>AUSTRALIA</b>						
ADELAIDE	3.9	0.2	2.4	3.0	2.8	3.0
BRISBANE	1.5	(4.1)	9.6	5.0	3.0	3.0
CANBERRA	3.5	3.0	3.3	3.5	3.0	3.0
DARWIN	0.5	0.8	1.0	2.5	3.0	4.0
GOLD COAST	1.3	(4.0)	10.5	5.0	3.0	3.0
MELBOURNE	3.0	1.0	2.0	3.0	3.5	3.5
PERTH	1.5	1.5	11.3	4.5	3.5	3.5
SYDNEY	4.1	0.0	1.8	2.4	3.0	3.5
TOWNSVILLE	3.0	1.0	4.0	3.0	3.0	3.0
<b>NEW ZEALAND</b>						
AUCKLAND	3.5	(1.9)	8.5	5.5	3.5	3.0
CHRISTCHURCH	2.0	1.0	8.5	5.5	3.0	3.0
WELLINGTON	3.0	3.0	6.0	4.0	3.0	3.0
<b>UNITED KINGDOM</b>						
BIRMINGHAM	2.3	0.0	3.5	3.5	4.0	4.0
BRISTOL	2.4	0.5	3.5	4.0	4.0	3.5
LEEDS	2.2	0.0	3.2	3.6	3.6	3.8
LONDON	1.0	0.0	3.8	3.3	3.3	3.0
MANCHESTER	2.0	2.5	4.5	3.5	3.5	3.5
SHEFFIELD	2.0	0.0	3.2	3.6	3.8	4.0
THAMES VALLEY	1.5	0.0	3.8	3.3	3.3	3.0
<b>IRELAND &amp; MAINLAND EUROPE</b>						
AMSTERDAM	3.1	0.0	(3.5)	NP	NP	NP
ATHENS	3.0	(1.5)	2.0	2.8	3.0	3.0
BERLIN	1.8	0.0	(1.0)	NP	NP	NP
BUDAPEST	10.0	8.0	4.0	NP	NP	NP
DUBLIN	6.7	1.6	2.5	3.5	3.5	3.5
LISBON	NP	NP	2.0	2.8	3.0	3.0
OSLO	3.5	(4.0)	3.5	3.5	NP	NP
PARIS	1.0	1.5	1.5	NP	NP	NP



# RLB CRANE INDEX®

## Overview

In September 2012, the RLB 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 tracks the numbers of cranes in 58 key cities within the RLB network of offices across the globe. It is anticipated that further RLB and affiliated offices will contribute crane numbers in 2022, extending the coverage of the Index across the globe.

The RLB Crane Index® provides a simplified measure of the state of the construction industry's workload in each location. Each RLB office physically counts all fixed cranes on the city's skyline, based on a defined area.

AUSTRALIA CITIES	Q3 2019	Q1 2020	Q3 2020	Q1 2021	Q3 2021	MOVEMENT % CHANGE
ADELAIDE	19	15	10	10	11	10.0%
BRISBANE	57	58	50	71	83	16.9%
CANBERRA	25	27	27	26	33	26.9%
CENTRAL COAST	14	9	5	9	10	11.1%
DARWIN	1	1	-	-	-	-
GOLDCOAST	29	33	34	29	35	20.7%
HOBART	5	4	-	-	-	-
MELBOURNE	213	196	177	193	180	-6.7%
NEWCASTLE	12	17	13	9	9	0.0%
PERTH	34	37	36	30	37	23.3%
SUNSHINE COAST	11	11	15	16	13	-18.8%
SYDNEY	319	299	297	286	295	3.1%
WOOLONGONG	18	15	11	12	12	0.0%
<b>AUSTRALIAN CITIES</b>	<b>757</b>	<b>722</b>	<b>675</b>	<b>691</b>	<b>718</b>	<b>3.9%</b>

NEW ZEALAND CITIES	Q3 2019	Q1 2020	Q3 2020	Q1 2021	Q3 2021	MOVEMENT % CHANGE
AUCKLAND	95	88	77	78	96	23.1%
CHRISTCHURCH	9	12	14	15	14	-6.7%
DUNEDIN	1	1	-	-	1	-
HAMILTON	4	3	3	6	4	-33.3%
QUEENSTOWN	10	12	11	15	8	-46.7%
TAURANGA	6	5	3	4	5	25.0%
WELLINGTON	6	7	15	18	16	-11.1%
<b>NEW ZEALAND CITIES</b>	<b>131</b>	<b>128</b>	<b>123</b>	<b>136</b>	<b>144</b>	<b>5.9%</b>

AMERICAN CITIES	Q2 2019	Q1 2020	Q3 2020	Q1 2021	Q3 2021	MOVEMENT % CHANGE
BOSTON	14	13	12	13	12	-7.7%
CHICAGO	27	29	14	12	7	-41.7%
DENVER	18	25	18	22	15	-31.8%
HONOLULU	4	9	8	10	6	-40.0%
LAS VEGAS	25	17	4	2	2	0.0%
LOS ANGELES	49	47	41	43	51	18.6%
NEW YORK	27	26	12	10	10	0.0%
PHOENIX	3	9	16	9	2	-77.8%
PORTLAND	30	28	27	23	15	-34.8%
SAN FRANCISCO	23	33	24	11	13	18.2%
SEATTLE	49	36	43	43	39	-9.3%
WASHINGTON D.C.	28	25	38	45	35	-22.2%
<b>UNITED STATES CITIES</b>	<b>297</b>	<b>297</b>	<b>257</b>	<b>243</b>	<b>207</b>	<b>-14.8%</b>

CANADA CITIES	Q2 2019	Q1 2020	Q3 2020	Q1 2021	Q3 2021	MOVEMENT % CHANGE
CALGARY	34	37	34	35	32	-8.6%
TORONTO	120	121	124	208	225	8.2%
<b>CANADIAN CITIES</b>	<b>154</b>	<b>158</b>	<b>158</b>	<b>243</b>	<b>257</b>	<b>5.8%</b>
<b>NORTH AMERICAN CITIES</b>	<b>451</b>	<b>455</b>	<b>415</b>	<b>486</b>	<b>464</b>	<b>-4.5%</b>

MIDDLE EAST CITIES	Q4 2017	Q4 2018	Q4 2019	MOVEMENT % CHANGE
DUBAI	1,182	1,193	1,345	-
ABU DHABI	253	338	257	-
DOHA	469	468	401	-
<b>MIDDLE EASTERN CITIES</b>	<b>1,904</b>	<b>1,999</b>	<b>2,003</b>	<b>-</b>

AFRICAN CITIES	Q1 2020	Q3 2021	MOVEMENT % CHANGE
DURBAN	8	-	29
CAPE TOWN	29	-	21
STELLENBOSCH	6	-	2
JOHANNESBURG	36	-	30
PRETORIA	15	-	18
<b>SOUTH AFRICAN CITIES</b>	<b>94</b>	<b>-</b>	<b>100</b>

HONG KONG	Q1 2020	Q4 2020	MOVEMENT % CHANGE
HONG KONG ISLAND	27	23	-
KOWLOON	45	70	-
NEW TERRITORIES	45	63	-
<b>HONG KONG CITIES</b>	<b>117</b>	<b>156</b>	<b>-</b>

SOUTH EAST ASIA	Q1 2020	Q3 2020	Q1 2021	Q3 2021	-MOVEMENT % CHANGE
SINGAPORE	378	445	490	466	-4.9%
JAKARTA	-	99	113	74	-34.5%
HO CHI MINH CITY	-	115	106	120	13.2%
KUALA LUMPUR	-	410	469	443	-5.5%
YANGON	-	72	73	73	0.0%
<b>SOUTH EAST ASIA CITIES</b>	<b>378</b>	<b>1,141</b>	<b>1,251</b>	<b>1,176</b>	<b>-6.0%</b>

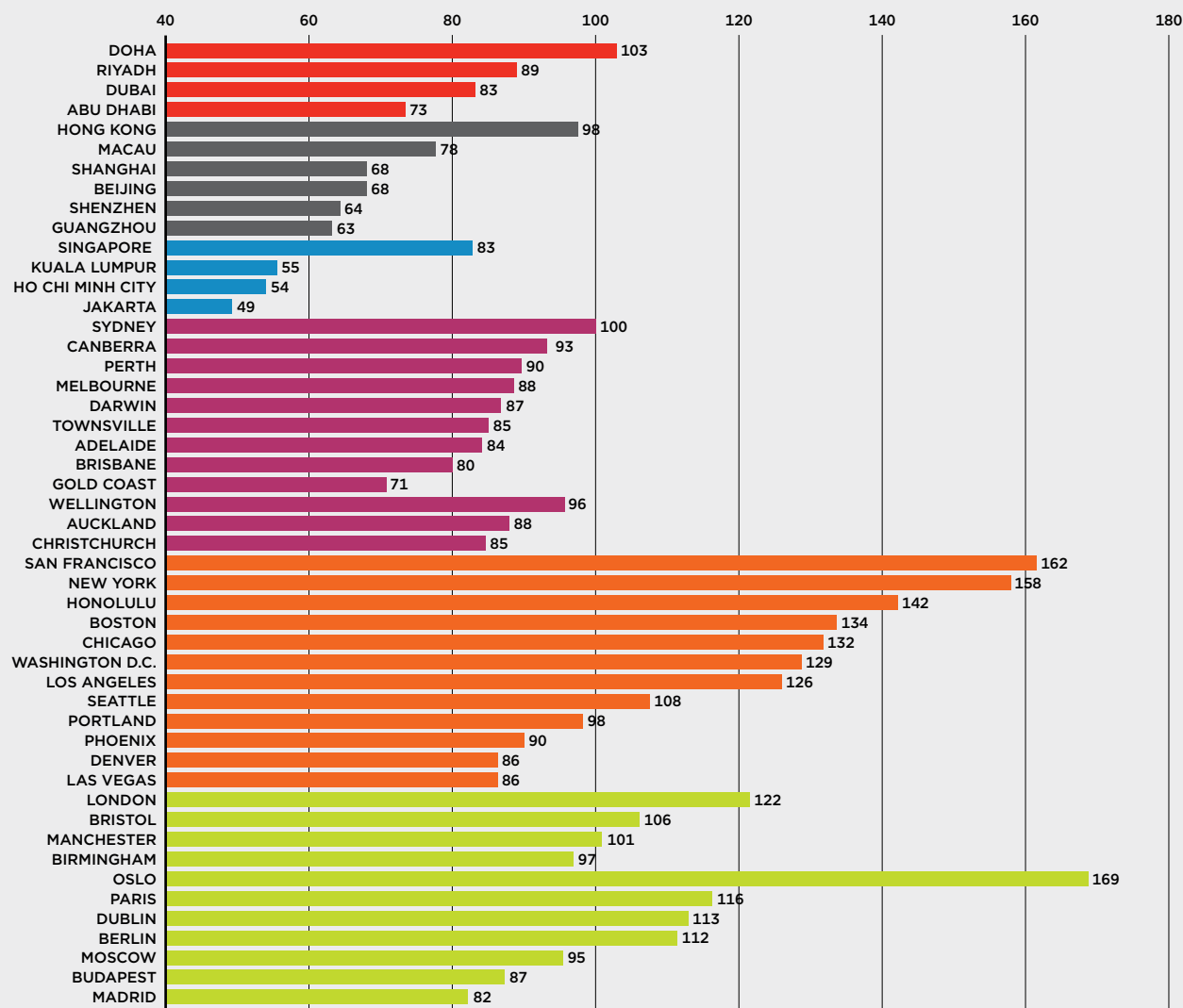
UNITED KINGDOM CITIES	Q1 2020	Q3 2020	Q1 2021	Q3 2021	MOVEMENT % CHANGE
BIRMINGHAM	20	18	6	21	250.0%
LEEDS	23	21	9	11	22.2%
LIVERPOOL	7	6	6	6	0.0%
LONDON	216	184	183	189	3.3%
MANCHESTER	34	16	38	32	-15.8%
SHEFFIELD	7	10	5	10	100.0%
<b>UNITED KINGDOM CITIES</b>	<b>307</b>	<b>255</b>	<b>247</b>	<b>269</b>	<b>-3.1%</b>

# 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 are calculated using a combination of statistical methods including:

- Conversion into one currency method by converting local currency model costs using USD and International Monetary Fund'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 Q4 2021.



REGION	RELATIVITY INDEX	CURRENT RANKING	CITY	MOVEMENT	POSITION
MIDDLE EAST	15	15	DOHA	▶	0
	24	25	RIYADH	▼	1
	36	36	DUBAI	▶	0
	41	41	ABU DHABI	▶	0
NORTH ASIA	20	19	HONG KONG	▲	1
	38	40	MACAU	▼	2
	43	43	SHANGHAI	▶	0
	44	44	BEIJING	▶	0
	45	45	SHENZHEN	▶	0
S.E. ASIA	46	46	GUANGZHOU	▶	0
	39	38	SINGAPORE	▲	1
	48	47	KUALA LUMPUR	▲	1
AUSTRALIA	47	48	HO CHI MINH CITY	▼	1
	49	49	JAKARTA	▶	0
	16	17	SYDNEY	▼	1
	22	23	CANBERRA	▼	1
	37	26	PERTH	▲	11
	26	28	MELBOURNE	▼	2
	27	30	DARWIN	▼	3
	32	33	TOWNSVILLE	▼	1
	34	35	ADELAIDE	▼	1
	40	39	BRISBANE	▲	1
NEW ZEALAND	42	42	GOLD COAST	▶	0
	21	21	WELLINGTON	▶	0
	28	27	AUCKLAND	▲	1
AMERICA	33	34	CHRISTCHURCH	▼	1
	2	2	SAN FRANCISCO	▶	0
	3	3	NEW YORK	▶	0
	4	4	HONOLULU	▶	0
	6	5	BOSTON	▲	1
	5	6	CHICAGO	▼	1
	7	7	WASHINGTON D.C.	▶	0
	8	8	LOS ANGELES	▶	0
	14	13	SEATTLE	▲	1
	18	18	PORTLAND	▶	0
UNITED KINGDOM	25	24	PHOENIX	▲	1
	30	31	DENVER	▼	1
	31	32	LAS VEGAS	▼	1
	9	9	LONDON	▶	0
	13	14	BRISTOL	▼	1
EUROPE	17	16	MANCHESTER	▲	1
	19	20	BIRMINGHAM	▼	1
	1	1	OSLO	▶	0
	10	10	PARIS	▶	0
	11	11	DUBLIN	▶	0
	12	12	BERLIN	▶	0
EUROPE	23	22	MOSCOW	▲	1
	29	29	BUDAPEST	▶	0
	35	37	MADRID	▼	2

Restaurant Klein JAN, Tswalu Kalahari Reserve, Northern Cape, South Africa

Photography: Adriaan Louw for House and Leisure



### CURRENT MARKET CONDITIONS

The decrease in demand for commercial office space remains unchanged since our last report. There is much discussion about converting office space into residential space—supporting the increased demand for residential space—but conversions are yet to occur. Interest rates remained at record lows throughout the quarter, boosting the property market; there was an influx of first-time home buyers and work-from-home employees seeking larger properties. The demand for residential properties is still on an upward trend.

Data Centres are becoming increasingly popular, while the retail sector remains stagnant.

Although there has been increased government planning activity for large infrastructure projects in the water, energy and affordable housing sectors in South Africa, it is not expected that these projects will commence in 2021. There is no real change in the momentum of projects in central Africa. While project commencement remains a slow process, very few projects are put on hold or cancelled.

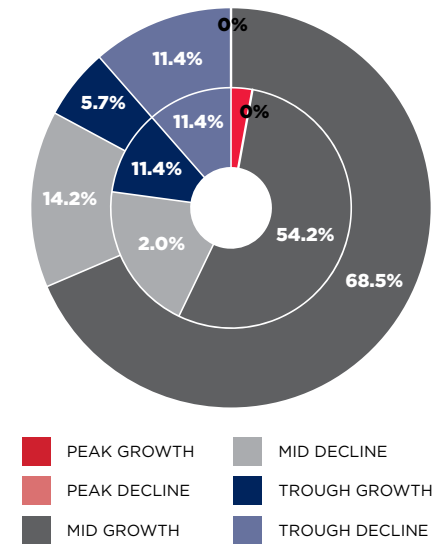
### CONSTRUCTION COST IMPACT

The COVID-19 lockdown has been lifted to adjusted Level one, which provides more freedom. However, there have been new challenges impacting construction. The steel sector strikes and recent unrest in parts of South Africa have had impacts on material delivery and movement of labour. Steel prices are high and extremely volatile with very few contractors willing to fix their rates. Although not only a local issue, but the global shipping crisis has also influenced live projects.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
CAPE TOWN	8.2%	8.2%	NP	NP
DURBAN	6.1%	6.1%	6.4%	9.4%
GABORONE	3.1%	3.1%	NP	4.1%
JOHANNESBURG	4.2%	4.2%	NP	NP
MAPUTO	3.1%	3.1%	NP	4.1%

### MARKET SECTOR ACTIVITY



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



### CURRENT MARKET CONDITIONS

Across the region, the UAE economy is fully open and active, with tourists starting to return. However, the effects of the pandemic are now starting to be realised in the market, with key subcontractors and suppliers facing financial difficulties. With the recent commencement of Expo 2020, confidence in the market is growing cautiously and tenders are increasing. Refurbishment and reconfiguration fit out opportunities are strong.

Business in Qatar has largely returned to normal, with general restrictions being at their lowest since COVID-19 precautions came into effect. Qatar continues to push ahead with its FIFA World Cup Qatar 2022 construction preparation, which covers many sectors. New project activity is quite low, driven by the fact that if completion cannot be achieved before the FIFA World Cup, then project commencements may be delayed.

There have been a number a high profile, large potential projects announced recently, improving confidence for activity in Qatar post-World Cup.

In Saudi Arabi, RLB clients continue to accelerate pre-contract activities, and the announcement of large projects (particularly in the tourism sector) continue to be the trend. In addition, early stage works on many giga projects are commencing. The Diriyah Gate giga project development has commenced infrastructure works and will be one of the dominating projects in Riyadh in the coming years. Similarly, ROSHN (a national community developer) is set to build approximately one million homes. The Kingdom has implemented a successful COVID-19 vaccination campaign and is now seeing the lifting of many restrictions.

As the global recovery takes pace, the demand for energy has skyrocketed. As a result, the price per barrel of oil has returned to pre-pandemic levels giving all the Middle East region's treasury a boost.

### CONSTRUCTION COST IMPACT

An essential risk facing the UAE market is the fluctuating price of key construction materials, such as steel. Large projects Contractors are refusing to provide fixed price lump sum offers and requesting that fluctuation clauses are added to contracts. However, the competitiveness within the market is helping maintain fixed tender prices for now. Bespoke and specialist imported products and materials face considerable lead time issues.

Qatar inflation levels for 2021 are reported to be approximately 2.5% and are forecast to remain fairly consistent for the next several years. However, with just over 12 months left until the FIFA World Cup, pressure to complete projects may affect prices by the end of next year. Global material price fluctuation and supply shortages do not appear to have materialised in Qatar to date. However, RLB is aware of many contractors that have submitted pandemic related and price fluctuation claims.

The Vision 2030 initiative has committed to many giga projects across the Kingdom. Many of these projects are breaking ground simultaneously and have programmes spanning through to 2030 and are likely to put strain on existing supply chains. The result is that inflation could reach double digit figures by the mid 2020's.

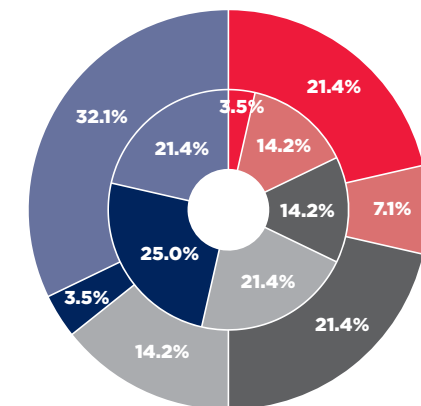
It remains to be seen how procurement strategies will react to high levels of rapid inflation. As many of the projects in Saudi Arabia span several years, expecting contractors to shoulder the risk of price increases could result in even further inflated prices.

It is unclear yet whether the Saudi Government will increase budgets to cope with risings costs, or whether the scope of the projects will reduce.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
ABU DHABI	1.9%	1.9%	2.0%	2.5%
DOHA	2.2%	2.2%	2.0%	2.0%
DUBAI	2.2%	1.6%	2.0%	2.5%
RIYADH	3.1%	2.0%	3.5%	5.0%

### MARKET SECTOR ACTIVITY



OUTER RING - MARKET SECTORS AS AT Q4 2021  
 INNER RING - MARKET SECTORS AS AT Q2 2021



### CURRENT MARKET CONDITIONS

As the COVID-19 epidemic continues, the global construction industry remains unstable with projects are facing global supply chain problems and restricted construction activities. With on-going prevention and control measures implemented by the governments, the regional economy shows signs of gradual recovery.

In the first half of 2021, mainland China’s GDP expanded by 12.7% year-on-year. Investment in real estate development in different regions of mainland China showed various degrees of increase. By the end of the second quarter of 2021, there was a year-on-year increase of 12% in number of construction companies, with total value of signed construction contracts increasing by 13.5% in the same period.

In the second quarter of 2021, Hong Kong’s economy expanded by 7.6% while Macau’s GDP rebounded by 69.5% year-on-year in real terms. The construction industry relied heavily on public funded projects acknowledging the low construction output and newly invested building works in private sector. While the effect of the pandemic is expected to persist, government’s investment in infrastructure and public housing projects will provide positive support to Hong Kong and Macau’s construction industry soon.

South Korea’s GDP grew by a seasonally adjusted 0.8% in the second quarter of 2021, compared with the 1.7% expansion in the first quarter. Due to reduced non-residential buildings and social infrastructure projects, GDP from construction in South Korea dropped in the second quarter accompanied by 2.3% drop in construction investment.

### CONSTRUCTION COST IMPACT

While the global economy is recovering from the effects of COVID-19 pandemic, global border closures and travel restrictions continue to have an impact on the material supply chain and logistics.

In the first half of 2021, prices of major construction materials in Shanghai increased significantly, with the average prices of steel and copper rising by 20% and 22.5% respectively compared with the fourth quarter of 2020 while the construction labour price remained the same. TPI of major cities in China were generally in upward trends in the first half of 2021.

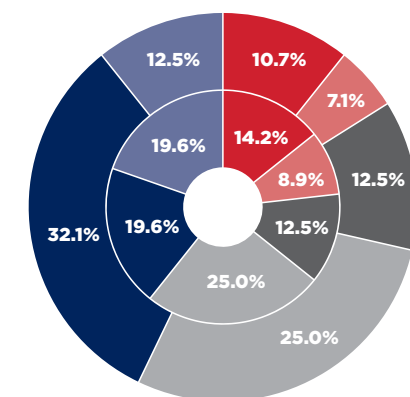
In Hong Kong, it is forecast that tender prices will continue to rise moderately in remaining quarters of 2021 as a result of rising inflation rates and material costs. For Macau, the tender prices are expected to move moderately up or down within a narrow range towards the end of 2021.

Construction output in South Korea had marginally increased despite a negative dynamic in investment with 0.3% year-on-year increase in August of 2021. Building activity rebounded along with civil engineering falling at a softer pace. An upward trend is observed in labour costs while import prices surged due to a hike in global oil. Annual inflation rate in South Korea stood at 2.5%, 0.5% above the central bank’s annual target. It is expected that TPI of South Korea continues to increase in coming quarters.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
BEIJING	3.0%	5.0%	2.0%	2.0%
CHENGDU	3.0%	3.0%	3.0%	3.0%
GUANGZHOU	4.0%	4.1%	3.0%	4.0%
HONG KONG	0.0%	4.9%	1.0%	4.0%
MACAU	(2.0)%	(2.0)%	(1.0)%	(1.0)%
SEOUL	5.1%	5.1%	1.1%	1.1%
SHANGHAI	7.7%	7.8%	4.0%	4.0%
SHENZHEN	3.0%	4.0%	3.0%	3.0%

### MARKET SECTOR ACTIVITY



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
 INNER RING - MARKET SECTORS AS AT Q2 2021



CUHK Medical Centre, Hong Kong



### CURRENT MARKET CONDITIONS

High vaccination rates appear to be one of the foremost considerations in countries re-opening their economies and borders. The successful control of severe COVID-19 cases and outbreaks will continue to play a major role in easing the foreign labour shortages currently faced across South Asia.

Construction sites in Singapore continue to operate with stringent Safe Management Measures and regular COVID-19 testing regimes. The sector also is facing labour shortages as borders with traditional labour sources remained closed, leading to delays in site progress. Overall, the construction sector activity remains 25% below its pre-COVID-19 level.

In Malaysia, recovery is on track for 2021; the construction sector grew 42.6% in the second quarter. This is the highest growth recorded since Q2 2012 (due, in part, to a lower base in 2020).

A second wave of COVID-19 cases and movement restrictions imposed in the third quarter of 2021 will dampen Indonesia's economy and construction sector. However, the market is still forecast to grow by 2.7% this year; the sector is classified as essential activity, lessening the severity of the impact. The industry is expected to rebound with a growth rate of 8.4% in 2022.

Vietnam's construction sector posted strong growth in 2020 and is expected to continue to do so this year, and into the new year. This is as Multi-National Companies pumped record Foreign Direct Investment into the nation to diversify their supply chains and limit over-reliance on a single market.

In the Philippines, almost 38% of the adult population are fully vaccinated against COVID-19. The acceleration in the government's vaccination program will enable robust economic activity resulting in increased domestic consumption, investment confidence and government infrastructure spending. The construction sector posted 16.8% growth, the highest among the major contributors to the 7.1-percent GDP expansion in the 3rd quarter period of 2021.

### CONSTRUCTION COST IMPACT

Recent world events may cast a pall on recovery prospects in South Asia. The deepening energy crisis in the world's most populous countries, the Evergrande debt crisis and shipping freight backlogs are likely to impact tender price escalations, as will the worldwide construction boom. Rising material costs, both imported and domestic, as well as the labour crunch in countries reliant on foreign workers has caused tender prices to rise steadily in the second half of 2021.

In Singapore, construction tender prices are expected to escalate in the coming year. Locally, the labour imbalance is likely to persist. The incorporation of allowances for pandemic-related issues into contracts are also likely to attract additional costs. Meanwhile, foreign worker levy rebates and other support schemes is expected to cease after 31 December 2021. This will apply upward pressure on tender prices, in the order of 3% to 8% for the year of 2022.

In Malaysia, tender prices are projected to remain unchanged in the first quarter of 2022. This is despite uncertainty around the local COVID-19 situation, and the pending government budget allocation for the coming year.

With a large domestic labour force and massive infrastructure projects in the pipeline, tender prices in Indonesia are likely to remain competitive in the near term.

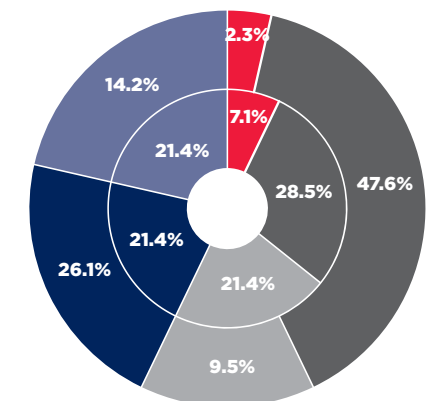
Vietnam's tender prices for 2022 are projected to grow moderately on the back of a steady supply of projects and the re-opening of its economy, in the order of 3% escalation for the year of 2022.

The Philippine outlook for 2022 tender prices will remain relatively steady due to imminent, possibly chaotic events due to the May 2022 national election. Although ongoing government infrastructure and private construction projects may continue without disruption, previously planned projects in the pipeline may yield a different outcome if a shift in new government policies and priorities become inevitable and become the order of the day.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
CEBU	0.0%	NP	0.0%	NP
CLARK	0.0%	NP	0.0%	NP
HO CHI MINH CITY	5.1%	2.7%	3.0%	3.0%
JAKARTA	5.0%	5.0%	NP	NP
KUALA LUMPUR	6.1%	6.1%	NP	NP
MANILA	0.0%	NP	0.0%	NP
SINGAPORE	6.5%	10.0%	3.0%	5.0%
SUBIC	0.0%	NP	0.0%	NP

### MARKET SECTOR ACTIVITY



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021



### CURRENT MARKET CONDITIONS

At the peak of the COVID-19 pandemic, many development projects in the United States were disrupted. 59% of construction firms reporting to the Associated General Contractors of America they had projects scheduled to start in 2020 that were delayed until 2021, while 44% saw jobs completely cancelled.

Between January and June of 2021, that disruption continued, but to a much lesser degree. Only 8% of firms reported that owners cancelled projects scheduled to start during that period. Approximately 6% of contractors saw projects scheduled for the second half of the year postponed, and only 2% reported project cancellations.

Taking a look at how specific non-residential building sectors have been affected adds perspective to the story. Again, comparing activity in January to July 2020 to the same period of 2021, work in the hospitality/lodging field declined 30%, both education and office projects dropped 11%, commercial slipped 3%, and healthcare fell by 2%.

The effect of the depressed business environment has intensified competition for construction contracts. Because the market is so fierce, RLB is seeing contractors striving to keep their bids low; to do so, they are choosing not to pass along their spiking expenses. The published Bureau of Labour Statistic's Producer Price Index (PPI) data exposes the dramatic extent to which contractors are suppressing their costs in their bid price for non-residential work. In July 2021, bid prices averaged 4.4% more than in July 2020, while at the same time, the PPI registered a growth of 25.6%.

Construction in downtown Toronto remains busy, experiencing intensive development, with 13 new towers in various phases of development. Affordable housing has become a primary issue across Ontario. Looking ahead, the Ontario government has announced investment in 38 infrastructure projects at an estimated \$60 billion.

In Calgary, the \$4.9 billion Green Line Light Rail Transit line is the largest infrastructure investment in the city's history. Alberta transportation continues construction of the Southwest Calgary Ring Road and the West Calgary Ring Road. Moreover, ongoing major road construction projects include new roadways, upgrades to existing roadways, intersection upgrades, and installation of interchanges.

### CONSTRUCTION COST IMPACT

Supply chains for construction materials and equipment have experienced some of the harshest disruptions in recent memory. The ports of Los Angeles and Long Beach (a significant, if not the largest thoroughfare for international economic trade) has experienced issues with labor shortages and a surge of pent-up demand due to the pandemic. This has caused delays in offloading and has knock on effects for railway and trucking services. Nationally, labor shortages and unforeseen surges in demand are affecting costs for commodity materials such as structural steel, copper for plumbing and electrical works, and lumber.

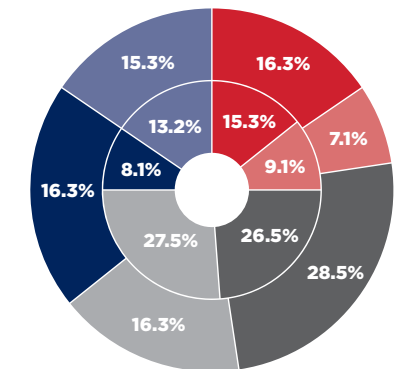
Generally, across RLB's North American offices, forecast construction costs have increased by between 1% to 2% over the past six months due to the above.

Construction costs have increased in Toronto, primarily due to demand drivers and supply chain problems.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
<b>BOSTON</b>	6.2%	<b>7.8%</b>	6.0%	<b>5.5%</b>
<b>CHICAGO</b>	6.3%	<b>7.4%</b>	2.5%	<b>3.0%</b>
<b>DENVER</b>	4.6%	<b>4.8%</b>	4.0%	<b>4.0%</b>
<b>HONOLULU</b>	2.7%	<b>3.2%</b>	3.5%	<b>3.5%</b>
<b>LAS VEGAS</b>	4.7%	<b>5.9%</b>	4.0%	<b>4.0%</b>
<b>LOS ANGELES</b>	4.9%	<b>6.3%</b>	4.5%	<b>4.5%</b>
<b>NEW YORK</b>	4.9%	<b>7.0%</b>	4.0%	<b>5.0%</b>
<b>PHOENIX</b>	7.7%	<b>7.9%</b>	5.0%	<b>5.0%</b>
<b>PORTLAND</b>	7.1%	<b>7.6%</b>	6.0%	<b>5.0%</b>
<b>SAN FRANCISCO</b>	6.8%	<b>5.5%</b>	6.0%	<b>5.0%</b>
<b>SEATTLE</b>	3.3%	<b>7.0%</b>	3.0%	<b>3.0%</b>
<b>WASHINGTON D.C.</b>	5.0%	<b>7.9%</b>	4.0%	<b>4.0%</b>
<b>CANADA</b>				
<b>CALGARY</b>	7.5%	<b>8.7%</b>	4.5%	<b>4.5%</b>
<b>TORONTO</b>	10.0%	<b>10.9%</b>	4.5%	<b>4.5%</b>

### MARKET SECTOR ACTIVITY



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021



### CURRENT MARKET CONDITIONS

The extended COVID-19 Delta outbreak caused further lockdowns across Australia in the third quarter of 2021. According to Treasury forecasts, these lockdowns may have cost the economy in excess of \$20 billion. However, data recently released by the Australian Bureau of Statistics highlights the continuing resilience of the construction industry across Australia. Prior to the COVID-19 pandemic, it was anticipated that construction volumes for the 2021 financial year would be mixed, mainly due to falling levels of activity across Australia. The surprising result is that most construction activity metrics analysed by RLB are close to decade highs.

Most states across the nation experienced similar activity levels in the 2021 financial year to the previous year. Overall construction work done in Australia amounted to \$212 billion, a slight decrease on the \$213 billion achieved in the 2020 financial year. The fall in volume was largely attributable to reduced activity in Victoria, which amounted to \$2.4 billion. This comes as no surprise, with Victoria enduring the worst COVID-19 outbreak and longest lockdown in Australia.

Across all RLB offices, high levels of activity have been observed in the current year to date, despite the generally subdued economic sentiment. In most cities, it has been 'business as usual' within the construction industry. Both Sydney and Melbourne are the exception, with the industry adapting to various setbacks caused by total industry shutdowns and density restrictions on-site.

Despite the bumpy road experienced since the outbreak, construction performance was strong for the 2021 financial year. The long-term influence of COVID-19 remains in train for those sectors initially hit the hardest. However, the fast-tracked actions taken by both federal and state governments have provided stability in certain sectors and considerable growth in others.

The multi-level apartment sector in Australia has been the single main contributor to record levels of building activity in major cities. Looking ahead, while the sector will continue to be a key contributor, it will struggle to reach the record levels achieved in the years leading up to 2020 again. The current view is that supply has outstripped demand.

### CONSTRUCTION COST IMPACT

Upward pressure on contractor tender pricing is being seen across the country, albeit at differing levels. Sydney, Melbourne, Canberra, Adelaide and Darwin have observed stable increases, generally within expectation. However, significant surges have been experienced in Brisbane and Perth, with escalation forecasts for 2021 well above levels forecast at the backend of 2020. This is surprising as both states have had limited lockdowns impacting construction activity, but both introduced stringent border closures when compared to the rest of the country.

Material prices have risen through 2021 in concrete, steel, reinforcement, timber and PVC based products used in hydraulic and electrical trades. Raw material prices for metals, such as copper and iron ore, also reached historic record highs.

Such rises have prompted some trades to link supply rates as a condition of tender pricing and therefore subject to a price adjustment should the rate increase. Similarly, hold prices from steel suppliers have diminished, with increases upwards of 20% observed since October 2020 from some suppliers.

Recent tender results for other trades convey a slightly different scenario. Finishes and some services trades have remained stable. This is perhaps reflective of the decline in multi-level apartment developments and mixed outlook for what lies ahead.

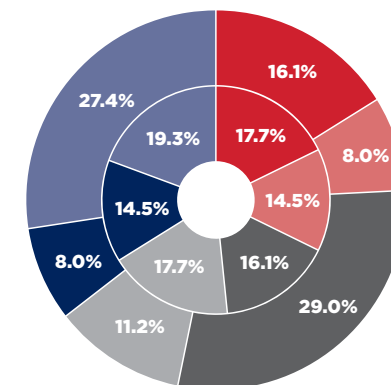
Not surprisingly, contractors' preliminaries have increased as a result of Covid conditions. Contractor margins remain within expectation and the appetite to secure pipelines of work are still present.

Supply chain issues and the issues impacting shipping container movements across the globe are well documented. Contractors have flagged the potential for material shortages, shipping cost increases and delays of imported goods and equipment. However, at this stage, the influence on recent tender pricing is not significant. However there does appear to be growing pressure and perhaps further impacts to come.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
ADELAIDE	1.5%	2.4%	2.0%	3.0%
BRISBANE	4.1%	9.6%	3.0%	5.0%
CANBERRA	2.8%	3.3%	2.8%	3.5%
DARWIN	0.8%	1.0%	1.0%	2.5%
GOLD COAST	3.5%	10.5%	3.5%	5.0%
MELBOURNE	2.0%	2.0%	2.5%	3.0%
PERTH	4.0%	11.3%	3.0%	4.5%
SYDNEY	1.2%	1.8%	2.0%	2.4%
TOWNSVILLE	4.0%	4.0%	3.0%	3.0%

### MARKET SECTOR ACTIVITY



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021

PwC Tower, Commercial Bay, Auckland, New Zealand



**CURRENT MARKET CONDITIONS**

New Zealand has navigated the COVID-19 pandemic well, despite the recent outbreak and lockdowns (primarily within the Auckland region). The long-term outlook remains positive. The fiscal and monetary policy of the central government has underpinned strong domestic demand and construction activity, particularly in residential construction where activity levels are at an all-time high. The upsurge in construction activity and demand, in parallel with significant supply chain issues and closed borders, has seen severe capacity issues causing cost pressure, longer lead times and market uncertainty.

Labour and material shortages are common across the entire country and while there is optimism that when the borders open (possibly early 2022) labour shortages may ease. The ongoing international supply issues and port congestion is expected to continue well into 2022. The construction market sectors with the strongest growth are within horizontal infrastructure, industrial and data centres, health, and the retirement home development. Other sectors such as retail, hospitality and tourism have been majorly impacted by the pandemic and will take some to recover. Inflationary levels over the last quarter are at levels not seen since 1987, with construction being a major contributor to this. As a result, interest rates have been lifted modestly and further hikes are likely, which may dampen domestic demand.

**CONSTRUCTION COST IMPACT**

General cost inflation, as measured by the Consumer Price Index, rose 2.2% in the September 2021 quarter, the highest quarterly rise since 1987. On an annual basis, the CPI rose 4.9% compared to construction escalation over the same period estimated at 7.3%.

The forecast rise of construction costs is at levels not seen since 2004. Construction activity is at record levels. There are severe material supply issues due to commodity prices, shipping costs, and delays in manufacture. Finally, there are significant labour shortages without a relief valve available to import the required labour. All these factors are driving a very volatile market and increased costs. On larger projects with longer construction programmes, contractors are sometimes unwilling to provide fixed pricing on the material components of their bid. It is now common to see “fluctuating” clauses inserted into construction contracts that have not been seen since the 1980s and early 1990s.

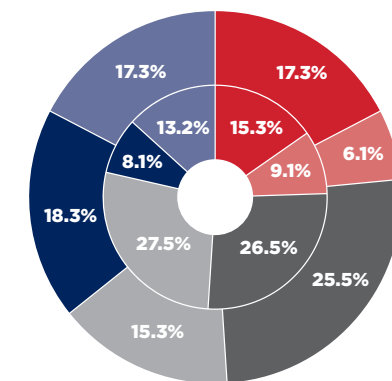
Clients are now encouraging early orders and procurement to mitigate further cost increases and ensure on time supply. We expect these issues will continue over the next few months, with cost escalation peaking around the end of the first quarter of next year.

Given the level of increased cost, the difficulty of securing resources and the nervousness of lending institutions, we expect development work to slow. However, with the significant pipeline of public work, RLB expects capacity issues to continue and an annual national escalation rate of between 5% and 6% in the 2022 calendar year.

**RLB TPI ANNUAL % MOVEMENT**

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
<b>AUCKLAND</b>	5.0%	8.5%	4.0%	5.5%
<b>CHRISTCHURCH</b>	3.0%	8.5%	4.0%	5.5%
<b>WELLINGTON</b>	4.0%	6.0%	3.0%	4.0%

**MARKET SECTOR ACTIVITY**



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021





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### CURRENT MARKET CONDITIONS

Construction in the UK is currently characterised by high levels of employment vacancies and significant materials and labour availability concerns. This is set alongside historically high levels of workload across most, if not all, sectors of the industry. The almost inevitable effect has been that some tender price uplifts have been significantly shifted to a higher level than had been forecast at mid-year. Government policy toward re-igniting the economy via “levelling-up” is also set to bring with it even greater workload availability, but the backdrop stands to be a serious shortage of the resources required to carry out that work.

Looking regionally, activity levels in London and the South-East are increasing. Some projects are progressing, and feasibility studies are underway, amid concerns over rising costs. People are returning to the city in a part-time capacity. With offices back in use, local businesses are seeing footfall, and commercial life is reviving. In the south west, sectors in which revenues are unable to mitigate the inflation seen over the past quarters are being stifled and put on hold. The infrastructure, retail and leisure sectors have seen projects struggling to maintain viability in the face of escalating build costs. However, the education sector appears strong, particularly in Wales where the government is investing significantly in new large schools.

The North-West faces similar issues, with material and labour costs and availability causing logjams at the negotiation and pre-construction stage. In the Midlands, particularly busy sectors include industrial, infrastructure and residential. The High Speed Rail link with London (HS2) has now translated into on-site activity, while residential projects exist in most sub-sectors, though with Build to Rent projects still forming a sizeable portion. Similarly, construction demand in Yorkshire and Humber remains strong for the rest of 2021 and into 2022. Regional infrastructure investment is supporting growth in multiple sectors, but the region faces supply-side problems common across the country.

The upshot of all this combined regional activity is that contractors and sub-contractors tread a fine line between trading profitably and over-trading, especially in the context of complex and lengthy supply chain arrangements. The Just-in-Time management of project supply chains is now seen as problematic, as a single broken link can undermine progress commitments and cashflow expectations, all in an atmosphere of escalating input costs.

### CONSTRUCTION COST IMPACT

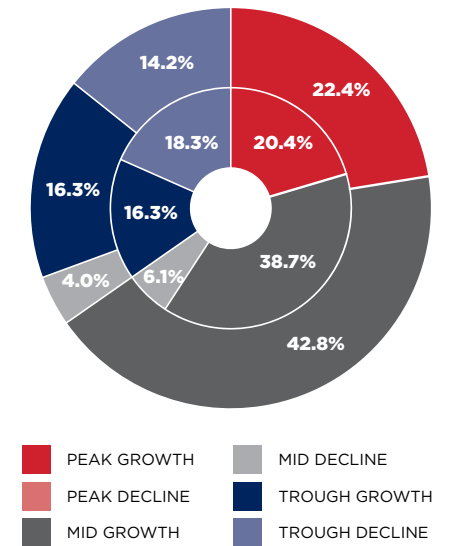
In just the last six months, RLB Tender Price Index escalation projections have shifted upwards noticeably. The previously expected figures of barely 2.5% average per annum have been replaced with figures averaging over 3.25%. This represents a consistent and protracted cost impost over a multi-year period. While regions’ experiences vary, all are impacted by the ongoing squeeze on labour and materials. If this continues, it can only lead to inflationary effects as builders pass-through their input costs.

As 2021 gives way to 2022, more will become clearer on how the market’s response to the medium to longer-term figures will look, but the re-settling of the balancing of supply and demand will be a feature of at least the next year and probably into 2023. A revitalised commercial sector, in tandem with the advertised extravagant public sector spend, could yet further inflate the market. However, although “locally produced materials” availability problems should be alleviated, imported materials may yet face further frictions at the EU/UK border, and labour shortages cannot, it seems, be alleviated in the short-term.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
<b>BIRMINGHAM</b>	3.5%	<b>3.5%</b>	3.5%	<b>3.5%</b>
<b>BRISTOL</b>	2.0%	<b>3.5%</b>	4.5%	<b>4.0%</b>
<b>LEEDS</b>	3.2%	<b>3.2%</b>	3.8%	<b>3.6%</b>
<b>LONDON</b>	1.5%	<b>3.8%</b>	1.8%	<b>3.3%</b>
<b>MANCHESTER</b>	3.5%	<b>4.5%</b>	3.5%	<b>3.5%</b>
<b>SHEFFIELD</b>	3.0%	<b>3.2%</b>	3.6%	<b>3.6%</b>
<b>THAMES VALLEY</b>	1.5%	<b>3.8%</b>	1.8%	<b>3.3%</b>

### MARKET SECTOR ACTIVITY



OUTER RING - MARKET SECTORS AS AT Q4 2021  
INNER RING - MARKET SECTORS AS AT Q2 2021

### CURRENT MARKET CONDITIONS

Across the region, the International Monetary Fund’s forecasts of GDP growth are 5-6% for this year, and 3.5-4.5% for 2022, but with a broad range of national outcomes. Downside risks remain as withdrawal of support and new waves of COVID-19 caused by variants. Notably, COVID-19 is acknowledged as having had an uneven impact on the industry but has effected a reallocation of labour resources for the medium term. This is reflected in individual countries’ reports of labour availability concerns.

The recovery of the European construction industry is happening faster than initially expected, and it is anticipated that the losses experienced from the pandemic will have been recovered in 2021. Figures are suggesting that construction volume across Europe will grow by 3.8% in 2021, following the 5.1% slump experience during 2020.

In 2020, dramatic declines in total construction output were seen across almost all European countries, with the exception of: Denmark, Finland, Portugal and Sweden. The countries which suffered the most significant declines were France, Ireland, Spain, UK, Hungary and Slovakia, which recorded high single-digit or even double-digit declines. The Nordic construction industry was more resilient to the impact of the pandemic, experiencing positive growth rates in several of the countries. However, this was contrasted in Eastern Europe, where negative growth trends were seen.

Looking forward, the economic conditions across Europe are looking favourable, and the construction industry is also benefiting from an overall rapid economic recovery. However, unlike previous years, the construction industry will show a lower growth dynamic than the overall economy from 2022 onwards. It is forecast that growth rates in the construction industry will be 3% in 2022 and 2.1% in 2023, whilst the economies across Europe are expected to expand by 4.4% in 2022 and 2.0% in 2023.

From a sectoral perspective, civil engineering, which has already shown significantly above-average growth momentum in recent years, has the most promising growth prospects through to the end of 2023. Non-residential construction, which was most badly hit by the coronavirus pandemic, is generally experiencing a slow, weak recovery path in the coming years, and the Residential construction sector will continue to deliver stable growth rates.

### CONSTRUCTION COST IMPACT

Overall, the European construction industry is continuing to emerge strongly from the pandemic, inline with general Europe-wide recovery. However, the continuation of the recovery is underpinned by the need for appropriate fiscal measures, targeted spending and re-balanced growth in access to materials and labour, to generate the conditions that will enable strong workload pipeline without excessive inflationary spikes. While the integration of Europe is strong in terms of free movement of labour, goods and materials, national governmental policy preferences will inevitably give rise to widely differing solutions to the re-invigoration of respective markets, even after residual Covid risks have been embedded in investors and contractors’ costing and pricing models.

The RLB Covid Survey continues to record only minimal changes in site productivity, and few sites closed, with previously held projects now being released to market.

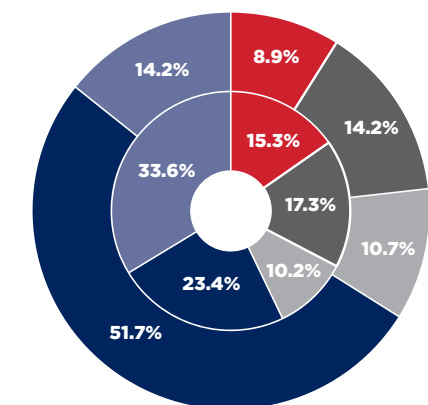
For materials, commodity markets continue to cause issues across the region, with suppliers unable to maintain fixed pricing levels for medium/long periods and escalations being seen across key materials, equipment, service and freight.

There is also broad evidence of labour availability concerns, standing alongside materials procurement strain, which have combined to elongate programmes and generate cost and risk-based inflation in tender pricing.

### RLB TPI ANNUAL % MOVEMENT

	2021		2022	
	PREV.	CURR.	PREV.	CURR.
AMSTERDAM	(3.5)%	(3.5)%	NP	NP
ATHENS	NP	2.0%	NP	2.8%
BERLIN	(1.0)%	(1.0)%	0.0%	0.0%
BUDAPEST	2.5%	2.5%	3.5%	3.5%
DUBLIN	2.5%	2.5%	3.5%	3.5%
LISBON	2.0%	2.0%	2.0%	2.8%
MOSCOW	9.8%	9.8%	NP	NP
OSLO	3.5%	3.5%	3.5%	3.5%
PARIS	1.5%	1.5%	NP	NP

### MARKET SECTOR ACTIVITY



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

OUTER RING - MARKET SECTORS AS AT Q4 2021  
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