CONSTRUCTION MARKET UPDATE

LUCKY

RIDER LEVETT BUCKNALL SINGAPORE AND REGIONAL REPORT

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RLB

event

Buckhall

DECEMBER 2022

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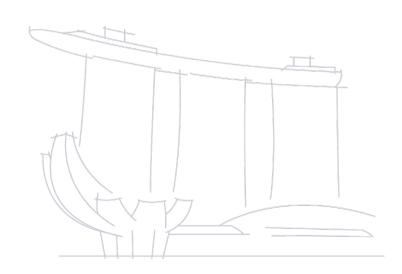
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EXECUTIVE SUMMARY



General Market

The second half of 2022 was characterised by a series of highs in inflation, interest rates, oil and gas prices and uncertainties. The conflict in Ukraine which started in Feb 2022, carried on for the rest of the year, slowing the recovery of the global economy.

The International Monetary Fund forecast global inflation to rise from 4.7% in 2021 to 8.8% in 2022, the highest in more than 2 decades, before declining in the new year. Aggressive interest rate hikes by the Federal Reserve to the highest level in 15 years caused the value of many currencies to plunge in the second half of 2022, driving costs of imported goods up.

Global growth is forecast to slow further in the new year to 2.7%, from 3.2% in 2022. Tightening financial conditions in most regions, the conflict in Ukraine and lingering pandemic impacts all weigh heavily on the outlook, with the potential of a global recession on the horizon. In addition, the recent regulatory developments in China in December 2022 are likely to add on to economic pressures before it gets better.

Construction Industry

A global questionnaire facilitated by RLB's offices, and published in the Fourth Quarter 2022 International Report, recently identified the major influences on regional construction inflation. In line with the global trend, building material costs (28%) and availability of skilled foreign labour (14%) were pinpointed as the key drivers causing uncontrollable lifts in construction costs. In this report, the key Southeast Asia region influences, both external and internal, are identified pictorially in a tree map on page 3. Majority of the region's construction industry enjoyed a respite from rising material and labour costs in the second half of 2022 as prices stabilised in 4 of 7 cities covered in this report. While global material prices have moderated in the second half of 2022, prices remain elevated and the time lag between market prices and construction tender prices means that tender price escalations may be far from over.

Meanwhile, availability of skilled labourer are reported to have improved in selected cities. However, external economic pressures may push labour costs higher in the near term.

Going into the new year, tender price movements are expected to remain comparable to 2022 on the back of high construction material prices and labour costs, with the exception of Kuala Lumpur and Tokyo.

Separately, more emphasis has been placed on sustainability in the built environment as nations worldwide pledge to achieve net zero carbon emissions by 2050. The Singapore Green Mark scheme was revised with an aggressive raise in energy efficiency standard, Cambodia announced a focus on increasing green logistics which reduces embodied carbon and Indonesia's new capital is planned as a green and smart city.

HIGHLIGHTS



	TPI Moveme	nt (%) Y-oY	Material Costs	Labour Costs
	2022 (p)	2023 (f)	2Q'22 t	o 3Q'22
Singapore	8.8	1.5 to 8.5		
Ho Chi Minh City	4.5	5.0		
Jakarta	5.1	5.1		
Kuala Lumpur	5.0	-5.0 to 0		
Phnom Penh	5.4	3.8		
Manila	7.0	5.0		
Tokyo	7.7	4.4		

p: preliminary, up to 3Q 2022 f: forecast

Legend:

🔺 Increased

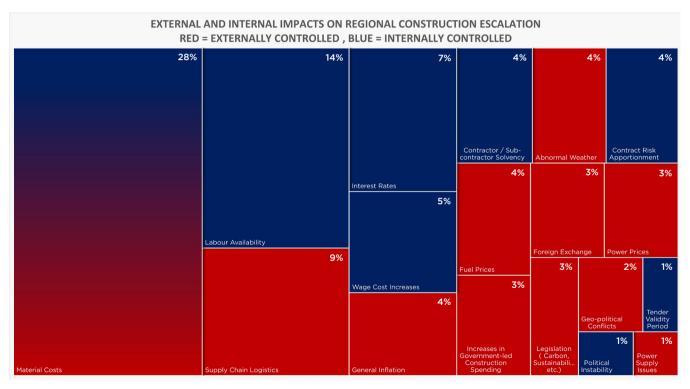
Remained

▼ Decreased





REGIONAL CONSTRUCTION INDUSTRY INFLUENCES ON ESCALATION

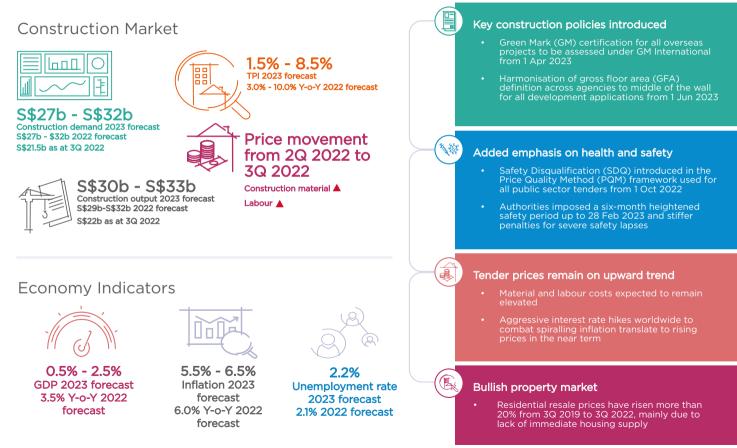


Note: Percentages in the tree map indicates the weightage of each influence on construction cost escalation.



SINGAPORE

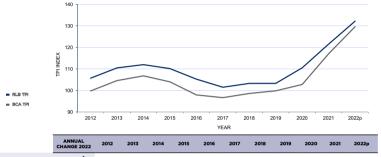




SINGAPORE



BUILDING TENDER PRICE INDICES



	CHANGE 2022		2010	2014	2010	2010	2017	2010	2015	1010		LULLP
RLB TPI	8.8%	105.7	110.5	112.0	110.2	105.3	101.5	103.3	103.3	110.5	121.6	132.2
BCA TPI	10.7%	99.8	104.6	106.8	104.0	98.0	96.7	98.6	99.9	102.8	117.1	129.6

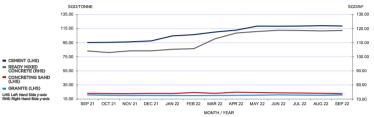
Data Sources: BCA, RLB p: preliminary Note: Variances between the RLB and BCA Tender Price Index arise from the differences in index derivation methodology, the basket of items and weightages used for each index and the variety of building projects utilised. The Index basket here excludes pilling works and Mechanical & Electrical services. Base Year 2010 = 100

BCA TENDER PRICE INDICES



Data Source: BCA p: preliminary

BASIC CONSTRUCTION MATERIALS



	AVG 3Q'2 2Q'22 CH		SEP 21	ОСТ 21	NOV 21	DEC 21	JAN 22	FEB 22	MAR 22	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22
CEMENT	1.9%		95.10	95.40	96.10	97.50	104.60	106.30	110.00	112.70	118.40	118.30	118.50	119.00	118.60
READY MIXED CONCRETE	0.6%	1	104.10	103.00	104.20	104.20	105.30	105.70	112.70	116.80	117.90	118.80	118.60	118.30	118.60
CONCRETING SAND	-4.7%	ŧ	23.10	22.70	22.60	23.00	22.90	24.30	23.20	24.70	24.20	23.80	23.60	23.20	22.50
GRANITE	0.3%	1	20.90	20.40	20.10	20.10	20.00	19.90	20.10	20.30	20.60	20.90	20.70	20.50	20.80

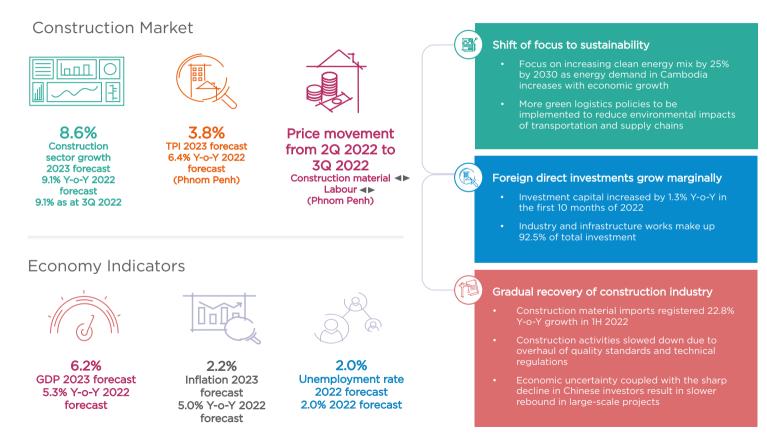
Data Source: BCA

Note:

- · Prices of granite and concreting sand excluded local delivery charges to concrete batching plants.
- The market prices of ready mixed concrete are based on conctracts with non-fixed price, fixed price and market retail price for Grade 40 pump.

CAMBODIA





CAMBODIA

CONSTRUCTION MATERIAL PRICES

		AVE	RAGE SUPP	PLY RATE (K	HR)
MATERIAL	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concreting Sand	m³	31,940	31,545	31,476	31,676
Stone Aggregate (20mm)	m³	71,547	72,915	72,757	73,218
Ordinary Portland Cement	kg	383	408	413	416
Reinforced Concrete (Grade 30 MPA)	m ³	296,043	265,219	264,643	266,322
Reinforced Concrete (Grade 40 MPA)	m³	312,154	293,349	292,711	294,568
High Tensile Steel Bars (10-32mm)	kg	3,142	3,416	2,807	2,825
Mild Steel Round Bars (10-25mm)	kg	2,940	3,416	2,687	2,704
Structural Steelwork (U-beam, stanchions)	tonne	6,041,687	7,233,255	7,217,539	7,263,330
Plywood Formwork (2,400x1,200x12mm)	m²	21,677	28,604	28,723	28,723
Clay Bricks (100mm thick brickwall)	m²	22,302	22,250	20,390	20,519

Data Source: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Tax Expenses (VAT)

Notes: All supply prices stated above are only applicable for building construction projects in Phnom Penh. Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 4,035 KHR



LABOUR PRICES

			AVERAGE LABOUR RATE (KHR)							
SELECTED OCCUPATIONS	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022					
General Worker	Day	96,700	96,400	72,800	73,200					
Concretor (Skilled - Local)	Day	112,800	112,500	72,000	72,500					
Brick Layer (Skilled - Local)	Day	122,400	122,200	97,000	97,700					
Plasterer (Skilled - Local)	Day	161,100	160,700	95,000	95,600					
Tiler (Skilled - Local)	Day	128,900	128,600	87,800	88,300					
Steel Bar Worker (Skilled - Local)	Day	145,000	144,700	78,300	78,800					
Carpenter (Formwork) (Skilled - Local)	Day	193,300	192,900	96,400	97,000					
Carpenter (Joinery) (Skilled - Local)	Day	193,300	192,900	96,400	97,000					
Roofer (Skilled - Local)	Day	122,400	122,200	105,600	106,300					
Structural Steel Worker (Skilled - Local)	Day	145,000	144,700	99,400	100,000					
General Welder (Skilled - Local)	Day	193,300	192,900	83,200	83,700					
Plumber (Skilled - Local)	Day	161,100	160,700	86,500	87,000					
Painter (Skilled - Local)	Day	161,100	160,700	97,000	97,700					
Scaffolder (Skilled - Local)	Day	96,700	96,400	96,400	97,000					
Electrician (Semi-skilled - Local)	Day	145,000	144,700	96,000	96,700					

Data Sources: Market sources

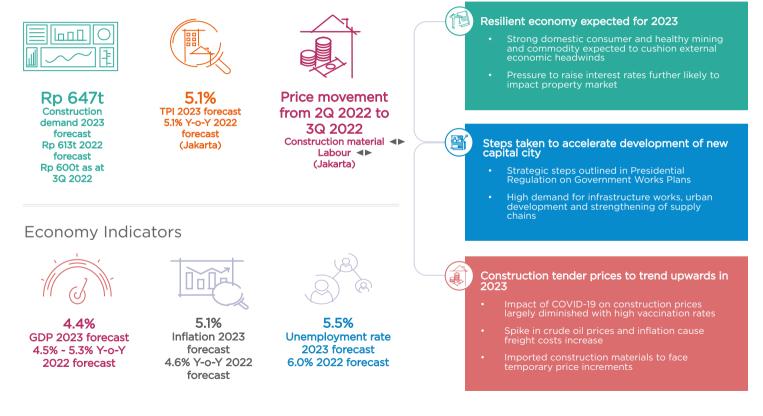
Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Value Added Tax (VAT)

Notes: All labour rates stated above are only applicable for building construction projects in Phnom Penh.

INDONESIA



Construction Market



INDONESIA



			AVERAGE SUP	PLY RATE (IDR)	
MATERIAL	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concreting Sand	m³	260,000	260,000	280,000	280,000
Stone Aggregate (20mm)	m ³	227,000	227,000	230,000	230,000
Ordinary Portland Cement	kg	68,000	71,000	68,000	65,000
Reinforced Concrete (Grade 30 MPA)	m ³	757,000	765,000	770,000	770,000
Reinforced Concrete (Grade 40 MPA)	m³	807,000	810,000	860,000	900,000
High Tensile Steel Bars (10 - 40mm)	kg	10,800	11,150	10,700	9,900
Mild Steel Round Bars (6 - 20mm)	kg	11,000	11,700	10,500	9,700
Structural Steelwork (U-beam, stanchions)	tonne	18,000,000	18,540,000	18,000,000	17,500,000
Timber Sawn Formwork	m²	184,000	185,000	185,000	185,000
Clay Bricks (100mm thick brickwall)	m²	130,000	130,000	130,000	135,000

Data Source: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Tax Expenses (VAT) Notes: All supply prices stated above are only applicable for building construction projects in Jakarta. Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 14,879 IDR



LABOUR PRICES

		,	AVERAGE LABC	OUR RATE (IDR)
SELECTED OCCUPATIONS	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
General Workers	Day	115,000	120,000	120,000	125,000
Carpenter (General)	Day	170,000	180,000	180,000	185,000
Tiler	m²	70,000	75,000	75,000	80,000
Concretor	m ³	110,000	120,000	120,000	125,000
Steel bar worker	Kg	2,500	2,700	2,700	2,800
Formworker	m²	85,000	85,000	85,000	90,000
Bricker Layer	m²	45,000	48,000	48,000	50,000
Plasterer	m²	55,000	55,000	55,000	60,000
Painter	m²	30,000	30,000	33,000	33,000
Glazer	m²	250,000	270,000	270,000	275,000
Plumber	Day	190,000	195,000	195,000	200,000
Electrician	Day	190,000	195,000	195,000	200,000

Data Sources: Public Works Department Indonesia (Jakarta), market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Value Added Tax (VAT)

Notes: All labour rates stated above are only applicable for building construction projects in Jakarta.

MALAYSIA



Construction Market



6.1% Construction output 2023 forecast 5%- 10% Y-o-Y 2022 forecast



-5.0% - 0% TPI 2023 forecast 5.0% - 10.0% Y-o-Y 2022 forecast (Kuala Lumpur) Price movement from 2Q 2022 to 3Q 2022 Construction material ▼ Labour ◄► (Kuala Lumpur)

Economy Indicators



4.0% - 5.0% GDP 2023 forecast 7.0% - 8.5% Y-o-Y 2022 forecast 14.2% Y-o-Y as at 3Q 2022



2.8% - 3.3% Inflation 2023 forecast 3.0% - 3.5% Y-o-Y 2022 forecast



3.5% - 3.7% Unemployment rate 2023 forecast 3.8% - 4.0% 2022 forecast

Nation transitions out of COVID-19 pandemic but impacts linger

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- Labour shortage improved compared to 1H 2022 but remains an issue
- Inflow of foreign labourers alleviate shortage in the construction sector, stabilising labour costs

Influence of local political and economic uncertainties and global headwinds on market activities

- Projects move at a slower pace as developers adopt a wait-and-see approach as a new government is elected in 4Q 2022
- Global supply chains for machineries and M&E items remain affected
- Import prices remain volatile as oil and gas prices fluctuates greatly

Business sentiments muted and tender prices expected to drop in 2023

- Potential purchasers likely to dwindle in anticipation of a possible recession
- Projects announced in the 2023 Budget are projects already in progress
- No major allocations for new mega infrastructure projects, translating to a lack of new funds injected into the construction market

MALAYSIA



			AVERAGE SUPP	LY RATE (MYR)	RATE (MYR)		
MATERIAL	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022		
Concreting Sand	tonne	53.90	53.90	59.70	57.90		
Stone Aggregate (20mm)	tonne	33.20	33.20	33.20	33.20		
Ordinary Portland Cement	kg	17.95	18.85	18.85	18.60		
Reinforced Concrete (Grade 30 MPA)	m ³	195.00	200.00	200.00	200.00		
Reinforced Concrete (Grade 40 MPA)	m³	220.00	225.00	225.00	225.00		
High Tensile Steel Bars (10 - 32mm)	kg	3.50	3.50	3.30	3.10		
Mild Steel Round Bars (10 - 25mm)	kg	3.50	3.50	3.30	3.10		
Structural Steelwork (200 x 200mm U-beam)	tonne	4,500.00	4,500.00	4,100.00	3,900.00		
Plywood Formwork (4000x8000x12mm)	рс	60.00	60.00	60.00	58.00		
Clay Bricks (100mm thick brickwall)	рс	0.44	0.44	0.44	0.42		

Data Source: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Goods and Services Tax (GST)

Notes: All supply prices stated above are only applicable for building construction projects in Kuala Lumpur. Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 4.49 MYR



LABOUR PRICES

		AVERAGE LABOUR RATE (MYR)							
SELECTED OCCUPATIONS	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022				
General Worker (Foreign)	Day	72.00	72.00	72.00	72.00				
Concretor (Skilled - Local)	Day	127.00	127.00	127.00	127.00				
Brick Layer (Skilled - Local)	Day	130.00	130.00	130.00	130.00				
Plasterer (Skilled - Local)	Day	132.00	132.00	132.00	132.00				
Tiler (Skilled - Local)	Day	153.00	153.00	153.00	153.00				
Steel Bar Worker (Skilled - Local)	Day	129.00	129.00	129.00	129.00				
Carpenter (Formwork) (Skilled - Local)	Day	144.00	144.00	144.00	144.00				
Carpenter (Joinery) (Skilled - Local)	Day	145.00	145.00	145.00	145.00				
Roofer (Skilled - Local)	Day	127.00	127.00	127.00	127.00				
Structural Steel Worker (Skilled - Local)	Day	127.00	127.00	127.00	127.00				
General Welder (Skilled - Local)	Day	160.00	160.00	160.00	160.00				
Plumber (Skilled - Local)	Day	140.00	140.00	140.00	140.00				
Painter (Skilled - Local)	Day	133.00	133.00	133.00	133.00				
Scaffolder (Skilled - Local)	Day	124.00	124.00	124.00	124.00				
Electrician (Semi-skilled - Local)	Day	124.00	124.00	124.00	124.00				

Data Sources: Construction Industry Development Board (CIDB)

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Value Added Tax (GST)

Notes: All labour rates stated above are only applicable for building construction projects in Kuala Lumpur.

VIETNAM





8.0% Construction demand 2023 forecast 8.0% 2022 forecast 8.0% Y-o-Y as at 3Q 2022

9.0% Construction output 2023 forecast 9.0 % 2022 forecast 8.6% Y-o-Y as at 3Q 2022



from 2Q 2022 to 3Q 2022

Construction material ◀► Labour ◀► (Ho Chi Minh City)

Economy Indicators



6.0% - 6.5% GDP 2023 forecast 8.0 Y-o-Y 2022 forecast 13.7% Y-o-Y as at 3Q 2022



4.0% Inflation 2023 forecast 2.0% - 3.0% Y-o-Y 2022 forecast



4.0% Unemployment rate 2023 forecast 4.0% 2022 forecast



Notable regulations introduced in 2H 2022

 Publication of technical documents on urban and environmental infrastructure, managed by the Ministry of Construction

Construction sector maintains positive outlook

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- Downward adjustment of key material prices in 4Q 2022 provide relief in terms of profit margins for business
- Government support create opportunities for investment projects in the sector
- Vietnam's position as a neutral member of the United Nations create unique economic opportunities
- Vietnam economy registered 10.5% increase Y-o-Y in foreign direct investments

Real estate sector muted for 1H 2023

- Market demand cool due to tight credit restrictions, curtailing liquidity and purchasing power
- Recalibration of real estate corporations as many face cash flow and personnel difficulties
- Passing of revised Land Law and removal of obstacles for the sector expected to gradually warm up market and stabilise towards end of 2023

VIETNAM



CONSTRUCTION MATERIAL PRICES

MATERIAL	UNIT	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concreting Sand	m³	370,000	370,000	370,000	388,500	407,000
Stone Aggregate (20mm)	m³	310,000	310,000	310,000	325,500	341,000
Ordinary Portland Cement (PCB40)	kg	1,650	1,650	1,650	1,730	1,820
Reinforced Concrete (Grade 30 MPA)	m³	1,300,000	1,300,000	1,300,000	1,365,000	1,430,000
Reinforced Concrete (Grade 40 MPA)	m³	1,360,000	1,360,000	1,360,000	1,428,000	1,496,000
High Tensile Steel Bars (10 - 40mm)	kg	19,000	19,000	19,500	19,500	15,500
Mild Steel Round Bars (6 - 20mm)	kg	19,200	19,200	19,700	19,700	15,700
Structural Steelwork (U-beam, stanchions)	tonne	26,000	26,700	26,700	25,100	21,850
Timber Sawn Formwork	m²	165,000	165,000	165,000	165,000	165,000
Clay Bricks (100mm thick brickwall)	m²	115,000	115,000	115,000	115,000	115,000

Data Source: Ho Chi Minh City Construction Department, market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Tax Expenses (VAT)

Notes: All supply prices stated above are only applicable for building construction projects in Ho Chi Minh City. Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 23,455 VND

PHILIPPINES



Construction Market 5.0%



7.8% Construction demand 2023 forecast 5.8% Y-o-Y 2022 forecast 14.9% Y-o-Y as at 3Q 2022

> 7.0% Construction output 2023 forecast 3.0% Y-o-Y 2022 forecast 1.8% Y-o-Y as at 3Q 2022

Economy Indicators



4.8% GDP 2023 forecast 5.5% Y-o-Y 2022 forecast



4.8% Inflation 2023 forecast 4.5% Y-o-Y 2022 forecast



TPI 2023 forecast

(Manila)

3Q 2022

Labour

(Manila)

2.7% Y-o-Y 2022 forecast

Price movement

from 2Q 2022 to

Construction material

6.7% **Unemployment rate** 2023 forecast 6.2% 2022 forecast



PHILIPPINES



			AVERAGE SUPP	PLY RATE (PHP)	
MATERIAL	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concreting Sand	m ³	1,041	900	900	980
Stone Aggregate (20mm)	m³	1,400	1,400	1,400	1,550
Ordinary Portland Cement	kg	268	246	248	239
Reinforced Concrete (Grade 30 MPA)	m³	5,130	5,000	5,280	5,080
Reinforced Concrete (Grade 40 MPA)	m³	5,520	5,180	5,670	5,450
High Tensile Steel Bars (10 - 32mm)	kg	49	50	50	43
Mild Steel Round Bars (10 - 25mm)	kg	48	49	50	43
Structural Steelwork	tonne	60,000	73,450	104,240	66,540
Plywood Formwork (2438x1219x20mm)	рс	1,850	1,779	1,779	1,211
Clay Bricks (100mm thick brickwall)	рс	33	35	35	35

Data Source: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Tax Expenses (VAT) Notes; All supply prices stated above are only applicable for building construction projects in Manila.

Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 56.40 PHP



LABOUR PRICES

		ŀ	AVERAGE LABC	OUR RATE (PHP	')
SELECTED OCCUPATIONS	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concretor (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Brick Layer (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Plasterer (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Tiler (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Steel Bar Worker (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Carpenter (Formwork) (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Carpenter (Joinery) (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Roofer (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Structural Steel Work- er (Skilled - Local)	Day	1,320	1,325	1,325	1,408
General Welder (Skilled - Local)	Day	1,470	1,476	1,476	1,561
Plumber (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Painter (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Scaffolder (Skilled - Local)	Day	1,320	1,325	1,325	1,408
Electrician (Semi-skilled - Local)	Day	1,208	1,212	1,212	1,366

Data Sources: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Value Added Tax (VAT)

Notes: All labour rates stated above are only applicable for building construction projects in Manila.

JAPAN



Construction Market



4.5% Construction demand 2023 forecast 8.2% Y-o-Y 2022 forecast 11.7% Y-o-Y as at 3Q 2022

> -0.5% Construction output 2023 forecast -3.7% Y-o-Y 2022 forecast 2.4% Y-o-Y as at 3Q 2022



New construction sector policies

 Ministry of Land, Infrastructure, Transport and Tourism (MLIT) to apply BIM to all their projects starting from 1 Apr 2023

Countermeasures to stalled construction projects due to COVID-19

- Expanded use of ICT tools to improve operational efficiency and decrease interpersonal contact
- Government support for mainly small and medium-sized contractors

Current construction trends

- Material costs continue to rise, with Construction Cost Index forecast to increase 9.6% Y-o-Y by Oct 2022
- Contractors pass along higher construction costs as industry recovers post-pandemic

Property market remain resilient in 2023

- New non-residential investments in private sector expected to stay strong
- Demand for new residential sector recovering
- Overall construction investment to increase compared to 2022

Economy Indicators



2.3% GDP 2023 forecast 2.0% Y-o-Y 2022 forecast



1.4% Inflation 2023 forecast 2.0% Y-o-Y 2022 forecast



2.4% Unemployment rate 2023 forecast 2.6% 2022 forecast

JAPAN



			AVERAGE SUPP	PLY RATE (JPY)	
MATERIAL	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
Concreting Sand	m ³	4,850	4,850	4,850	5,150
Stone Aggregate (20mm)	m ³	4,550	4,550	4,550	4,850
Ordinary Portland Cement	kg	11,000	11,000	11,000	12,000
Reinforced Concrete (Grade 30 MPA)	m ³	15,550	15,550	15,850	16,050
Reinforced Concrete (Grade 40 MPA)	m³	18,400	18,400	18,700	18,900
Reinforcing Steel (SD295A D16)	tonne	89,000	96,000	102,000	121,000
Reinforcing Steel (SD345A D32)	tonne	93,000	100,000	106,000	125,000
Structural Steelwork	tonne	102,000	109,000	110,000	124,000
Plywood Formwork (1800x900x12mm)	рс	1,710	1,900	1,980	2,200
Bricks (230x76x25mm)	m²	7,200	7,200	7,200	7,200

Data Source: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Tax Expenses (VAT) Notes: All supply prices stated above are only applicable for building construction projects in Tokyo.

Specific cost consultancy should be sought for your particular factual situation prior to utilising this information.

Exchange rate assumption (3Q 2022): 1 USD = 138 JPY



LABOUR PRICES

		ļ	VERAGE LABC	OUR RATE (JPY)
SELECTED OCCUPATIONS	UNIT	4Q 2021	1Q 2022	2Q 2022	3Q 2022
General Worker (Foreign)	Day	21,600	21,600	22,300	22,300
Brick Layer (Skilled - Local)	Day	25,300	25,300	25,300	25,300
Plasterer (Skilled - Local)	Day	27,700	27,700	28,100	28,100
Steel Bar Worker (Skilled - Local)	Day	27,600	27,600	28,100	28,100
Carpenter (Formwork) (Skilled - Local)	Day	26,300	26,300	26,600	26,600
Carpenter (Joinery) (Skilled - Local)	Day	24,300	24,300	24,300	24,300
Structural Steel Worker (Skilled - Local)	Day	25,700	25,700	25,700	25,700
General Welder (Skilled - Local)	Day	31,300	31,300	31,300	31,300
Plumber (Skilled - Local)	Day	23,500	23,500	24,100	24,100
Painter (Skilled - Local)	Day	29,200	29,200	30,300	30,300
Scaffolder (Skilled - Local)	Day	27,900	27,900	27,900	27,900
Electrician (Semi-skilled - Local)	Day	25,700	25,700	26,700	26,700

Data Sources: Market sources

Exclusions: • Plant and Equipment • Transport • Wastage • Overheads and Profit • Import Tax • Value Added Tax (VAT)

Notes: All labour rates stated above are only applicable for building construction projects in Tokyo.



COMMODITY PRICE TRENDS



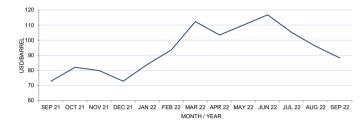
STEEL REINFORCEMENT (16 - 32MM HIGH TENSILE) SUPPLY PRICES



Data Source: BCA Note:

Prices of rebar other than 16-32mm dimensions may be subject to surcharge.
 With effect from Jan 2015, the market prices of rebar (without cut & bend) are based on fixed price supply contracts with contract period 1 year or less.

CRUDE OIL PRICES



		AVG 3Q'2 2Q'22 CH		SEP 21	ост 21	NOV 21	DEC 21	JAN 22	FEB 22	MAR 22	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22
•	Crude Oil	-12.4%	ŧ	73	82	80	73	84	94	112	103	110	117	105	96	88

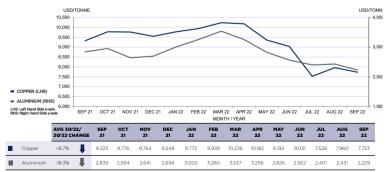
Data Source: IndexMundi

CURRENCY EXCHANGE RATES

CURRENCY					ι	JNITS PER USI	2		
			UNIT	APR 22	MAY 22	JUN 22	JUL 22	AUG 22	SEP 22
Singapore Dollar	s	SGD	1	1.37	1.38	1.38	1.39	1.38	1.41
Euro	e	EUR	1	0.92	0.95	0.95	0.98	0.99	1.01
U.K. Pound Sterling	£	GBP	1	0.77	0.80	0.81	0.83	0.83	0.88
Australian Dollar	s	AUD	1	1.35	1.42	1.42	1.46	1.44	1.49
Chinese Yuan	¥	CNY	1	6.43	6.72	6.70	6.74	6.80	7.03
Malaysian Ringgit	RM	MYR	1	4.27	4.39	4.40	4.44	4.47	4.55
Philippine Peso	P	PHP	1	51.98	52.36	53.60	55.92	55.75	57.52
Japanese Yen	¥	JPY	100	1.26	1.29	1.34	1.37	1.35	1.43
Myanmar Kyat	к	ММК	1,000	1.81	1.83	1.83	1.83	2.00	2.08
Cambodian Riel	\$	KHR	1,000	4.00	4.02	4.01	3.99	4.05	4.06
Indonesian Rupiah	Rp	IDR	1,000	14.37	14.57	14.67	14.98	14.83	14.83
Vietnamese Dong	d	VND	1,000	22.90	23.08	23.21	23.37	23.40	23.60

Data Sources: IMF, Oanda

Note: Exchange rates above are expressed in terms of currency units per US Dollar; averaged monthly from daily unit rates.



Data Source: London Metal Exchange (LME)

CONSTRUCTION PRICES IN THE REGION



	Sing	apore	Ho Chi Minh City	Jakarta	Kuala Lumpur	Manila	Tokyo
DEVELOPMENT TYPE	SGD/m ² CFA	SGD/m ² GFA	VND ('000)/m ²	IDR ('000)/m²	MYR/m ²	PHP/m ²	JPY ('00)/m²
OFFICE							
Good Quality, 10 to 25 storeys	2,590 - 4,210	3,180 - 4,850	25,360 - 27,760	10,800 - 11,100	1,900 - 2,600	28,890 - 48,310	3,790 - 6,220
Good Quality, 26 to 40 storeys	3,450 - 4,910	4,240 - 5,660	26,600 - 25,310	13,000 - 13,500	2,300 - 3,400	34,940 - 55,250	3,910 - 6,950
Prestige, 10 to 25 storeys	3,620 - 4,480	4,430 - 5,190	27,570 - 30,150	16,000 - 16,500	2,700 - 3,700	55,240 - 80,400	2,300 - 3,630
Prestige, 26 to 40 storeys	3,670 - 5,070	4,760 - 6,120	28,930 - 30,630	19,200 - 19,800	3,000 - 4,200	75,070 - 137,760	2,420 - 3,810
HOTEL	(includir	ng FF&E)			(including FF&E)	(including FF&E)	
Three Star	3,950 - 4,640	4,860 - 6,030	27,250 - 32,030	15,400 - 16,000	2,700 - 3,900	68,300 - 83,550	3,150 - 3,900
Four Star	4,640 - 5,770	6,130 - 7,590	34,900 - 37,610	22,500 - 23,200	4,000 - 5,400	84,060 - 109,200	4,000 - 4,850
Five Star	5,560 - 7,180	7,030 - 9,530	38,780 - 42,290	23,500 - 24,500	5,500 - 8,500	110,230 - 258,580	5,730 - 7,910
COMMERCIAL							
Retail/ Shopping Mall	2,400 - 4,050	3,730 - 5,580	22,470 - 26,420	12,100 - 12,700	2,500 - 3,800	48,400 - 62,120	2,490 - 4,190
RESIDENTIAL							
Good Quality Condominium	3,050 - 4,160	4,070 - 5,690	17,370 - 18,360	13,200 - 13,600	2,000 - 3,200	38,690 - 69,970	2,120 - 3,180
Luxury Condominium	4,160 - 5,720	5,690 - 8,030	18,830 - 23,250	18,200 - 18,800	2,800 - 4,800	62,430 - 107,140	3,500 - 4,910
INDUSTRIAL							
Warehouse	1,510 - 2,050	NA	7,460 - 8,980	6,000 - 6,600	1,200 - 1,900	63,760 - 136,750	1,260 - 2,310
Factory	1,890 - 2,590	NA	7,810 - 9,360	6,800 - 7,500	1,400 - 2,500	52,750 - 195,330	2,450 - 4,530
CAR PARK							
Multi Storey	880 - 1,550	NA	8,930 - 13,750	5,500 - 5,700	800 - 1,300	35,990 - 41,110	1,180 - 2,180
Basement, outside CBD	1,800 - 2,650	NA	16,540 - 23,720	8,500 - 8,800	1,400 - 3,000	37,180 - 63,670	NA
Basement, CBD	1,830 - 2,700	NA	18,350 - 25,850	9,200 - 9,500	1,800 - 4,000	37,180 - 63,670	NA

Sources: RLB and its affiliates

Notes:

Construction Floor Area (CFA) - The area of all building enclosed covered spaces measured to the outside face of external walls including covered basement and above ground car park areas.

Rates are in local currency per square metre of CFA as described above unless otherwise stated.

All construction prices stated herein are as at 3⁴⁰ Quarter 2022, and include a general allowance for foundation, car park, external works and preliminaries. The price ranges herein are indicative and due consideration should be given to the impact of varying design, specifications, size, location and nature of each project when utilising this information. Prices described here may not fully reflect the extent of current market forces and tendering conditions on any specific project.

Phnom Penh construction prices are not available in this issue.

Separate construction prices for external works within project development for Kuala Lumpur: 350,000 - 550,000 MYR/acre

Construction prices for Tokyo has been advised by courtesy of Sato Facilities Consultants, Inc., Japan. Enquiries can be directed to Takayoshi SATO at asksfc@sfc-net.co.jp

Exclusions:

• Land cost • Legal and professional fees • Development charges • Authority fees • Finance costs • Loose furniture, fittings and works of art (unless otherwise stated) • Tenancy work • Site infrastructure work in master development • Diversion of existing services • Green Mark/ LEED/ green building cost premiums • Resident site staff cost • Models and prototypes • External Works within project development (Kuala Lumpur only) • Future cost escalation • Service Provider Fees • Taxes, including Goods and Services Tax/ Value Added Tax

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- Value Engineering	- Development Management	- Replacement Cost Assessment	
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- Tender and Contract Documentation		- RElifing of Assets	
- Post-Contract Services		- Whole Life-Cycle Costing	
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- Final Accounts		- Procurement Strategies	
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