



Macro **Economics**

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According to the International Monetary Fund and World Bank, the global economy is poised to slow down this year amid strong headwinds against rising inflation, elevated interest rates, tightening fiscal policies, and a prolonged Russia-Ukraine war.

Global growth is expected to come in at 2.9 per cent, down from the 3.4 per cent recorded in 2022. Geopolitical tensions remain heightened, and the drawnout Russia-Ukraine war continues to have an impact on energy and food prices, as well as Euro-zone economies, fuelling dramatic cost increases and product shortages globally. China's sudden reversal of their zero COVID-19 policy and its re-opening since end-2022 should provide the upside and impetus to cushion further downward economy and higher inflation risk.

Singapore's growth forecast for 2023 is at 0.5 per cent to 2.5 per cent, after the economy expanded 3.6 per cent in 2022. 2022's average core inflation was 4.1 per cent, much higher than the 0.9 per cent in 2021. Singapore's unemployment rate remains low at pre-pandemic levels. The Ministry of Trade and Industry has cautioned uncertainties that continue to linger in the global economy, and with the GST hike to eight per cent, core inflation is projected to stay elevated in 2023. Local business sentiments have moderated for the fourth straight quarter, amid a mixed outlook across various sectors. The Business Optimism Index has fallen approximately 20 per cent since Q1 2022.





Construction **Demand**

Based on preliminary data released by BCA, 2022 recorded S\$29.8 billion in total construction demand, a marginal decrease compared to 2021.

Public sector projects continue to drive demand, contributing more than 60 percent of projects awarded. LTA awarded more than \$\$5 billion projects under the Cross Island Line Phase 1 & 2 and Jurong Region Line, while public residential projects recorded \$\$6.1 billion, a 10 per cent increment compared to 2021. HDB has launched more than 23,000 Build-to-Order flats in 2022 to meet the robust demand, compared with 17,000 flats launched in 2021. Demand remained buoyant in both the public and private residential markets throughout 2022.

A fresh round of property cooling measures introduced in September 2022 did not seem to dampen buyers' appetite. Year-on-year, public housing resale prices increased more than 10 per cent (Q3 2022 vs Q3 2021), while private residential prices increased 8.4 per cent, compared to the 10.6 per cent increase in 2021, according to flash estimates released by URA. In the whole of last year, nine Government Land Sales sites were awarded. The 25,234.3m2 site at Dunman Road was transacted for more than S\$1.2 billion, while other sites including Jalan Tembusu GLS and Dairy Farm Walk attracted competitive

land biddings from developers keen to expanding their land inventories.

With effect from 1 August 2022, a new Land Betterment Charge (LBC) has replaced Differential Premium, Development Charge, and Temporary Development Levy. The LBC is a tax on the increase in value of land arising from a chargeable consent given in relation to a development of any land. In the collective sales market, total collective sales transacted at approximately \$\$3.6 billion, the highest recorded since 2018. The bigger en-bloc includes Golden Mile Complex, Tanglin Shopping Centre, Parkview Mansions and Lakeside Apartments. Subject to the approval by the Strata Titles Board, the existing Golden Mile Complex will be 'sensitively restored', with its key features and signature terraced profile set to be retained.



Market Outlook

BCA's construction demand forecast this year ranges from S\$27 billion to an upper bound of S\$32 billion [excluding any developments on the two Integrated Resorts].

While the demand is comparable to last year, we forecast that the actual number of projects to be awarded this year will be less than last year's, due to an increase in overall construction costs. While prices of raw material have somewhat stabilised in the last two quarters, cement, concreting sand, and ready-mixed concrete have all risen by more than 10 per cent since last year, and prices may continue to rise, due to volatility of the supply chain. Prices of steel bar have declined from \$\$1,400 in April 2022 to \$\$900/tonne over the last few months, but a spike in demand from China's domestic markets arising from China's re-opening may again push up prices to the heights seen in April 2022.

The Russia-Ukraine war shows no sign of abatement; however, supply chain pressures have decreased with China's re-opening and falling container freight rates. The Global Supply Chain Pressure Index, which tracks the state of global supply chains using data from the transportation and manufacturing sectors, is now at levels seen pre-COVID. As of 1 February 2023, container freight rates were nearly 79 per cent below last year. From 1 January

2024, main contractors will no longer apply for Man Year Entitlement (MYE) and all construction Work Permit Holders (WPH) will be subjected to new levy rates. The Dependency Ratio Ceiling (DPC) will also be reduced from 1:7 to 1:5 (i.e., one local employee to five WPHs or S Pass Holders). Higher rentals and fewer vacancies in dormitories have nevertheless driven up costs for employers. The average monthly rental price of a dorm bed has increased from S\$272 (pre-COVID) to \$316 in Q3 2022. While hiring foreign workers is no longer an issue, we envisage that these policy changes, coupled with higher dormitory cost, will continue to place upward pressure on labour cost and availability.

The public sector will again lead construction demand, with spending anticipated to be in the range of S\$16 billion to S\$19 billion driven by infrastructure projects, whereas private projects are expected to contribute S\$11 billion to S\$13 billion driven by private residential and mixed development projects.

Residential

Demand in the private residential market is expected to stay comparable with the levels recorded in 2022.

Amidst a strong residential market, the government has moved to ramp up Government Land Sales residential supply, with seven sites under URA's Schedule of Confirmed List Site, and four more under the Schedule of Reserve List Site. Together, the sites can yield a total of 7,715 private residential units, the largest since 2014, while the Housing and Development Board (HDB) has also released one Mixed Development site at Tampines Avenue 11 and two Executive Condominium (EC) sites with another two EC under the Reserve List.

To meet a robust housing demand, up to 23,000 (Build-to-Order) BTO flats will be launched. It was reported that about 40 per cent of on-going BTO projects are delayed due to the pandemic, and the backlog is expected to clear within two years.

In the 2023 Budget announcement, buyers' stamp duties for higher value residential and non-residential properties will be raised. Analysts do not foresee major impact, as buyers of properties in this price range are unlikely to be deterred by the marginal hike. On the back of a strong market in 2022, more residential properties have been launched for collective sale. Meyer Park, the freehold seafronting residential property was sold earlier this year for \$\$392 million. Lakeside Towers and Kensington Park have

been put on the market, with the latter relaunched for the third time, at a reserve price of S\$1.28 billion. Orchard Bel Air, situated in prime district 10, may see keen interest given that luxury properties in the vicinity have largely sold well.

In addition, the re-opening of China should augur well for sales of high-end properties. Owners of Mandarin Gardens at Siglap Road are hopeful that the development can be put up for sale at the reserve price of \$\$2.88 billion once 80 percent of consensus is obtained.

One major stumbling block for any potential developer is the 40 percent additional buyer's stamp duty, including a non-remittable five per cent for the developer. J-Cube mall will shut down in August this year to make way for a 40-storey residential building. From 1 March 2023, the government has raised Land Betterment Charge for nonlanded residential use by an average 0.3 per cent, in sharp contrast to the 12.9 per cent hike in September 2022.



Commercial

On the commercial front, we expect demand and activities to ramp up in 2023. The demolition of AXA Tower is on-going, and when construction is completed, the redevelopment is set to be the tallest skyscraper in Singapore at 305m tall. Construction activities in mixed development projects such as Jalan Anak Bukit and Marina View are expected to commence this year. Demolition works at Clifford Centre has commenced, while demolition works of Central Mall, Tanglin Shopping Centre, and Golden Mile Complex should follow suit over the next two years.

To spur the next phase of development in Jurong Lake District, a 6.8-hectare white site will be released in Q2 2023. With a potential yield of more than 1.5 million square feet of office space, 1,760 private residential units, and 75,000m2 retail, hotel and community spaces, the integrated development will be progressively developed over the next 10 years. The River Valley Road hotel site remains on URA's Reserve List Sites, and is the only site earmarked for hotel development this year (apart from white sites).

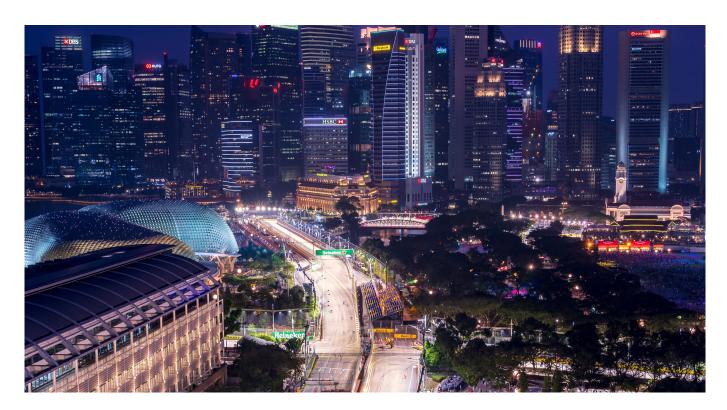
The easing of travel restrictions in 2022, coupled with the return of events such as the Singapore Airshow and Formula One Night Race, have accelerated the recovery of the tourism and the MICE sectors. Singapore's average hotel RevPAR rose to \$188.61, just less than two per cent shy of \$191.96 recorded pre-COVID in 2019. Based on URA data and research by Edmund Tie, a total of 5,482

new hotel rooms are in the pipeline between 2023 and 2025. Marina Bay Sands will begin work on its \$\$4.5 billion expansion plan in April 2024. Hotel investments in Asia Pacific attracted more than US\$10 billion in capital last year, up seven per cent year-on-year. Singapore hotels remain an attractive asset class for investors, led by the sales of 28 and 30 Bideford Road and SO/Singapore Hotel, while the Excelsior Hotel and Shopping Complex has recently launched a collective sale.

Due to a limited supply of land earmarked for hotel development, hotel owners will look to invest in value-add investment strategies, including re-branding, expanding room count, and converting underutilised spaces into revenue-generating rooms or F&B spaces, as in the case of the former Regent Singapore at Cuscaden Road, which was closed previously to undergo extensive upgrading works, and rebranded to Conrad.

According to URA Real Estate Statistics, office vacancies in Downtown Core and Orchard Planning Area as of Q4 2022 stand at 9.5 per cent, compared with 12 per cent in Q4 2021, as most offices now adopt a hybrid working arrangement, with some even mandating 100 per cent work-in-office. Office rental has increased 8.3 per cent year-on-year, with supply of new office spaces available this year expected to remain limited, notwithstanding a slowdown in the tech sector that has seen an increment in shadow spaces. Income @ Raffles at 16 Collyer Quay





changed hands in July 2022, and Westgate Tower was sold to Boston-based fund manager AEW. The acquisition follows the divestment of Twenty Anson office tower, 55 Market Street and Cross Street Exchange earlier in 2022 and therefore we expect redevelopment and upgrading activities to pick up this year. The PIL Building on Cecil Street will also be redeveloped into Grade A offices. Commercial and retail malls upgrading works are expected to continue, following the divestments of Jurong Point, Thomson Plaza, AMK Hub, and NEX Shopping Centre. The Cathay Building at Dhoby Ghaut will close temporarily in August to undergo refurbishment.

Industrial

According to Ministry of Trade and Industry, the manufacturing sector contracted in Q4 2022, on the back of a lower output in the electronics, chemicals and biomedical manufacturing clusters. Amid a weaker global consumer demand, headwinds in the sector are likely to persist. Despite a sharp downturn in the global market, French semiconductor materials supplier Soitec has broken ground on the construction of a \$\$571 million wafer fabrication plant, while Applied Materials is expanding its production facilities with completion scheduled for 2024. Construction works are underway for United Microelectronics Corp's 12-inch P3 wafer plant in Pasir Ris, and it was reported that Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest contract chipmaker, is considering building a new multibillion dollar factory in Singapore.

Singapore remains the top data centre market in Asia

Pacific, edging out Hong Kong and Sydney, with record low vacancies of two per cent in 2022 [Cushman & Wakefield APAC Data Centre Update]. The data centre moratorium has been lifted, and new developments must maintain a power usage effectiveness (PUE) ration of 1.3 or better, at 100 per cent IT load. The design of Changi NEWater Factory 3 (CNF3) is underway, with construction expected to begin this year. Located at the Changi Water Reclamation Plant (WRP), CNF3 will be one of the first reclamation plants to use Membrane Bioreactor filtrate to improve the quality of treated used water. Chinese company WuXi Biologics, which provides drug development and production for pharmaceutical companies, has committed to invest up to S\$2 billion to establish a manufacturing facility in Singapore, which will add 120,000 litres biomanufacturing capacity to its global network by 2026.

Apart from BioNTech who has taken over Novartis' plant at Tuas Biomedical Park and converted it into a fully integrated mRNA manufacturing facility, American pharmaceutical company MSD (Merck & Co) announced in October 2022 its plans to expand its existing manufacturing plant to produce cervical cancer vaccine. JTC reported that an estimated 1.8 million sqm of industrial space could be completed this year, based on approved plans as at end December 2022, which is the highest since 2017. Industrial rentals and prices have continued to increase, due to sustained demand for high quality industrial spaces and logistic warehouses. A Jones Lang La Salle research reported that the surge in demand for food delivery services and the adoption of technologies has fuelled the rise of central kitchens and demand for quality food

factory spaces. Industrial sales remain sluggish in 2022 amidst a bleak economic outlook and rising interest rates.

Infrastructure

More than S\$10 billion worth of civil engineering projects were awarded in 2022, the highest in 10 years, partly contributed by the on-going LTA rail works on both the Cross Island Line and Jurong Region Line. Construction demand for infrastructure works this year is expected to be between S\$8.3 billion to S\$9.1 billion. After a two-year hiatus, the development of Changi Airport Terminal 5 has re-commenced, and construction is expected to start in 2025, with the terminal projected to be operational in the mid-2030s. Land preparation and drainage works at Changi East have been completed, while the construction of the 57Ha Changi East Depot, a future depot serving the upcoming Cross Island Line MRT, is on-going.

Last year it was announced that nine blocks of HDB flats will be acquired starting from 2028, to make way for the expansion of Woodlands Checkpoint to include areas beyond the Old Woodlands Town Centre. Extension/expansion works on Bukit Timah Expressway will also commence to support the increase in traffic towards Woodlands Checkpoint. The remaining packages of the mega Tuas Water Reclamation Plant should be tendered out this year.







Tender Price Movement

The Building and Construction Authority Tender Price Index (TPI) in 2022 increased 11.6 per cent, compared to 2021.

Compared to 2019 (pre-COVID), the TPI has increased by as much as 30.8 per cent. 2022's TPI is the highest on record since BCA first started tracking tender price movements in 1987, and the increment has not taken into consideration escalation in mechanical and engineering (M&E) prices. Singapore's construction industry was badly affected by the Covid-19 pandemic over the last three years, and will see the completion of most of the delayed projects by 2023 with the return of foreign workers and an improvement in the construction materials supply chain with China's reopening.

Despite the stabilisation of the supply chain and material prices, skills shortage is a critical issue across the construction industry. The acute shortage is driving higher wage growth and will be the key construction cost driver for 2023.

We foresee that tender prices will continue to move upwards this year, due to increased cost pressures for contractors and suppliers alike. Higher financing costs and rising salary costs due to an inflationary environment is projected to be factored in contractors' risk pricing. Labour costs in Singapore increased to 114.10 points in Q4 2022, from 101.70 points in Q3 2022 [Trading Economics]. Changes to Employment Pass renewals will apply progressively from 1 September 2023 – Ministry of Manpower will be raising the qualifying salary and introduce points-based Complementarity Assessment Framework for new applications.

Overall, we expect tender prices to remain volatile and our preliminary cost escalation projection for 2023 is in the region of 3 to 5 percent, from current tender price level.

While copper prices have stabilised, we anticipate M&E prices to stay elevated. Recently we have seen a few M&E sub-contractors suffering from insolvency due to losses sustained during the pandemic. From recent tender exercises, we continue to note that contractors in general are still very cautious and selective of projects to tender, in a market still full of uncertainties in the near term. Some contractors are holding out for the bigger projects in the pipeline and will be keen to explore joint venture partnerships to minimise further risk exposures.

Recently, we have received more enquiries from clients exploring decarbonisation solutions. According to the Singapore Green Building Council, embodied carbon emissions of buildings constitute up to 40 percent of total carbon emissions over the lifespan of buildings, which tend to be shorter against constant urban renewal. As Singapore commits to achieve net zero emissions by 2050, the usage of alternative building materials with lower embodied carbon and tapping into renewable energy sources may drive up construction costs in the short term, until such materials and technologies are more widely adopted in the industry.

The Building Construction Authority has spearheaded the transformation of the built environment with incentives to adopt innovative solutions through robotics and automation, Integrated Digital Delivery together with Design for Manufacturing and Assembly (DfMA) to improve the productivity and site safety in the construction industry. New pandemic clauses to address unnecessary

tender price risks have become the norm in construction contracts for the public and private sectors. An alternative contract form adopting a collaborative contract approach would provide an equitable risk sharing between the stakeholders. In addition, investment in people and technology is paramount for a sustainable growth of the construction industry.



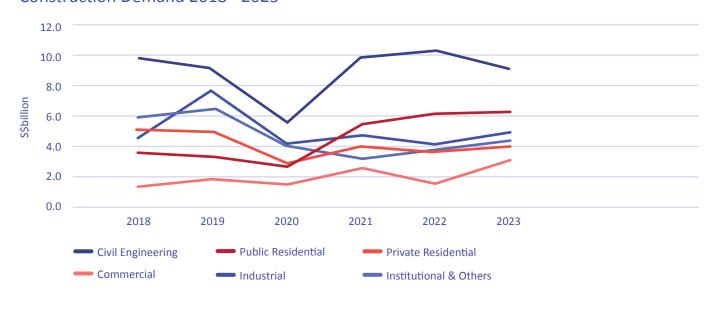
Annex A

Construction Demand



Annex A.1: Construction Demand, 2022 vs 2023 Source: Building Construction Authority, Singapore

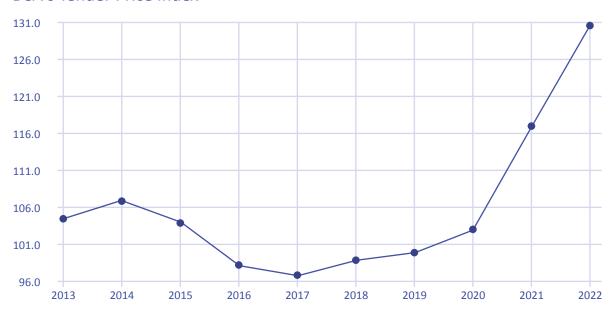
Construction Demand 2018 - 2023



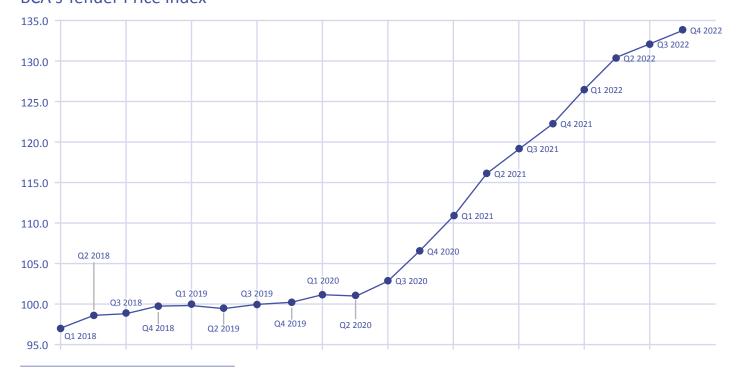
Annex A.2: Construction Demand, 2018 - 2023 2022 based on projection (upper bound) Source: Building Construction Authority, Singapore/ Department of Statistics Singapore

Annex B **Tender Price Index**

BCA's Tender Price Index



BCA's Tender Price Index



Annex B: Tender Price Index Movement, Annual/Quarter

Source: Building Construction Authority, Singapore

Singapore Construction Prices

(as at 4Q 2022 prices)

Development Type	Cost Per CFA S\$/m²
Carpark	
Above ground	1,100 - 1,300
Basement	1,700 - 2,100
Residential	
Mass market	2,700 - 3,200
Good quality	3,200 - 3,700
High end	4,300 - 5,000
Office	
Grade A	4,000 - 4,800
Grade B	3,500 - 4,000
Retail	
Mass market	3,200 - 3,500
High end	4,000 - 4,500
Industrial	
Light	1,500 - 2,000
Heavy	2,000 - 2,500
Hotel	
4-star	4,500 - 5,000
5-star	5,500 - 6,000
Institutional	
Nursing home	2,500 - 3,000
Primary School Secondary School	2,500 - 3,000

List of Exclusions:

- Land costs
- Development charges/differential premium
- Authority submissions fees
- Finance charges
- Site staff cost
- Professional fees
- Tenancy fit-out works
- FF&E (Furniture, Fittings and Equipment)
- Green Mark
- Contingency
- Escalation
- Goods and Services Tax

CFA – Construction Floor Area

Construction Floor Area is the area of all the building's enclosed covered spaces measured to the outside face of the external wall, including covered basement carpark and above ground carpark areas

Notes:

The price ranges stated herein are indicative only, and may vary subject to design, specifications, site conditions, size, nature, and location of project.

About

Threesixty Cost Management

Threesixty Cost Management Pte Ltd, a member of the Surbana Jurong Group, is a quantity surveying and cost management consultancy in Singapore. The company comprises senior practitioners whose experiences span over three decades under the leadership of Mr Seah Choo Meng, a respected practitioner in the construction industry. Threesixty Cost Management has an extensive track record and expertise in both the private and public sectors and are experienced in providing in-depth cost management and contractual administration to clients from project inception to completion. Its Cost Research unit is specialised in reliable cost estimates and cost benchmarking, and publication of cost research papers on market trends and new technologies in the construction market.



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