These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

1. General

The Company is incorporated and domiciled in Singapore and is listed on the Singapore Exchange Securities Trading Limited. The address of its principal place of business and registered office is 1 HarbourFront Avenue #18-01, Keppel Bay Tower, Singapore 098632.

The Company's principal activity is that of an investment holding and management company.

The principal activities of the companies in the Group consist of:

- offshore production facilities and drilling rigs design, construction, fabrication and repair, ship conversions and repair and specialised shipbuilding;
- power generation, renewables, environmental engineering and infrastructure operation and maintenance;
- property development and investment, as well as master development;
- provision of telecommunications services, retail sales of telecommunications equipment and accessories, development and operation of data centres, and provision of logistics solutions; and
- management of private funds and listed real estate investment and business trusts.

The financial statements of the Group for the financial year ended 31 December 2022 and the balance sheet and statement of changes in equity of the Company at 31 December 2022 were authorised for issue in accordance with a resolution of the Board of Directors on 2 March 2023.

2. Significant accounting policies

2.1 Basis of Preparation

The financial statements have been prepared in accordance with the provisions of the Companies Act 1967, Singapore Financial Reporting Standards (International) ("SFRS(I)s") and International Financial Reporting Standards ("IFRSs"). All references to SFRS(I)s and IFRSs are referred to collectively as SFRS(I)s in these financial statements, unless specified otherwise. The financial statements have been prepared under the historical cost convention, except as disclosed in the accounting policies below.

Interest Rate Benchmark Reform – Phase 2

In the prior year, the Group has adopted the amendments to SFRS(I) 9, SFRS(I) 7 and SFRS(I) 16 *Interest Rate Benchmark Reform – Phase 2* effective 1 January 2021. In accordance with the transition provisions, the amendments were applied retrospectively to hedging relationships and financial instruments. Comparative amounts have not been restated, and there was no impact on the prior year opening reserves amounts on adoption.

Hedge relationships

The Phase 2 amendments address issues arising during interest rate benchmark reform ("IBOR reform"), including specifying when hedge designations and documentation should be updated, and when amounts accumulated in cash flow hedge reserve should be recognised in profit or loss.

Note 35 provides further information about the reliefs applied by the Group and the hedging relationships for which the Group has applied the reliefs. No changes were required to any of the amounts recognised in the current or prior year as a result of these amendments. In the current year, the Group has continued to apply the following hedge accounting reliefs provided by the 'Phase 2' amendments to existing cash flow hedges (refer to Note 35 for the notional amount) that have transitioned to alternative benchmark rates required by IBOR reform:

- *Hedge designation*: When the 'Phase 1' amendments cease to apply, the Group will amend its hedge designation to reflect changes which are required by IBOR reform. These amendments to the hedge documentation do not require the Group to discontinue its hedge relationships.

- *Amounts accumulated in the cash flow hedge reserve*: When the interest rate benchmark on which the hedged future cash flows were based is changed as required by IBOR reform, the accumulated amount outstanding in the cash flow hedge reserve is deemed to be based on the alternative benchmark rate.

Financial instruments measured at amortised cost and lease liabilities

Phase 2 of the amendments requires that, for financial instruments measured using amortised cost measurement, changes to the basis for determining the contractual cash flows required by IBOR reform are reflected by adjusting their effective interest rate. No immediate gain or loss is recognised. A similar practical expedient exists for lease liabilities.

These expedients are only applicable to changes that are required by IBOR reform, which is the case if, and only if, the change is necessary as a direct consequence of IBOR reform and the new basis for determining the contractual cash flows is economically equivalent to the previous basis immediately preceding the change.

2. Significant accounting policies (continued)

For lease liabilities where there is a change to the basis for determining the contractual cash flows, as a practical expedient the lease liability is remeasured by discounting the revised lease payments using a discount rate that reflects the change in the interest rate where the change is required by IBOR reform. If lease modifications are made in addition to those required by IBOR reform, the Group applies the relevant SFRS(I) 16 requirements to account for the entire lease modification, including those changes required by IBOR reform.

For the year ended 31 December 2022, the Group has applied the practical expedients provided under Phase 2 amendments to S$1,965 million of its long-term debt, as disclosed in Note 35.

Effect of IBOR reform
The Group's risk exposure that is directly affected by the IBOR reform predominantly comprises its variable rate borrowings that are linked to the Singapore Swap Offer Rate ("SOR") or the United States Dollar London Interbank Offered Rate ("USD LIBOR"). A significant portion of these floating rate borrowings are hedged using interest rate swaps, which have been designated as cash flow hedges.

SOR will cease publication after 30 June 2023, and it is expected to be replaced by the Singapore Overnight Rate Average ("SORA"). The Group has S$200 million of remaining variable-rate SGD borrowing and S$28,931,000 variable-rate SGD receivables which references to SOR, with interest rate fixing date falling after 30 June 2023. The Group's communication with its debt counterparty and receivables counterparties respectively are still ongoing, as specific changes required by IBOR reform have not yet been finalised. As IBOR uncertainty is still present, the Group continues to apply the Phase 1 temporary amendments for hedge accounting on cash flow hedges relating to SOR risk, and further information on the hedging relationship has been disclosed in Note 35. The expected transition from SOR to SORA had no effect on the amounts reported for the current and prior financial years.

USD LIBOR will cease publication after 30 June 2023, and it is expected to be replaced by the Secured Overnight Financing Rate ("SOFR"). The Group has US$425 million (or S$581 million equivalent) of remaining variable-rate USD borrowings, S$410,119,000 variable-rate USD receivables and S$1,775,000 variable-rate USD payables which references to USD LIBOR, with interest rate fixing dates falling after 30 June 2023. The Group hedges the variability in cash flows of its borrowings using USD LIBOR-linked interest rate swaps. While most swaps have been restructured in view of IBOR reform, the Group's communication with its swap, debt, receivables and payables counterparties respectively are still ongoing, as specific changes required by IBOR reform have not yet been finalised. As IBOR uncertainty is still present, the Group continues to apply the Phase 1 temporary amendments for hedge accounting on cash flow hedges relating to USD LIBOR risk, and further information on the hedging relationship has been disclosed in Note 35. The expected transition from USD LIBOR to SOFR had no effect on the amounts reported for the current and prior financial years.

Affected financial instruments are SOR or USD LIBOR-linked instruments, with interest rate fixing dates falling after 30 June 2023. The following table contains details of all the affected financial instruments that the Group and Company holds at 31 December 2022 which are referenced to SOR and have not started transitioning to new benchmark rates:

	SOR			
	Group		Company	
	Carrying Amount $'000	Of which: Not started transitioning to an alternative benchmark rate $'000	Carrying Amount $'000	Of which: Not started transitioning to an alternative benchmark rate $'000
31 December 2022				
Assets				
- Amounts due from an associated company	20,000	20,000	-	-
- Loan to a joint venture	8,931	8,931	-	-
Liabilities				
- Borrowings	199,825	199,825	-	-

The following table contains details of all the affected financial instruments that the Group and Company holds at 31 December 2022 which are referenced to USD LIBOR and have not started transitioning to new benchmark rates:

	USD LIBOR			
	Group		Company	
	Carrying Amount $'000	Of which: Not started transitioning to an alternative benchmark rate $'000	Carrying Amount $'000	Of which: Not started transitioning to an alternative benchmark rate $'000
31 December 2022				
Assets				
- Derivative Financial Instruments	17,026	17,026	17,026	17,026
- Trade Receivables	410,119	410,119	-	-
Liabilities				
- Borrowings	581,230	170,950	581,230	170,950
- Creditors	1,775	1,775	-	-

The above table excludes receivables from KrisEnergy of S$109,601,000 which are referenced to USD LIBOR as the carrying amount of these receivables are primarily measured based on the expected recoveries for the Group.

2.2 Adoption of New and Revised Standards

The Group adopted the new/revised SFRS(I)s, SFRS(I) Interpretations and amendments to SFRS(I)s that are effective for annual periods beginning on or after 1 January 2022. Changes to the Group's accounting policies have been made as required, in accordance with the transitional provisions in the respective SFRS(I)s, SFRS (I) Interpretations and amendments to SFRS(I)s.

The following are the new or amended SFRS(I)s, SFRS(I) Interpretations and amendments to SFRS(I)s, that are relevant to the Group:

- Amendments to SFRS(I) 1-16 *Property, Plant and Equipment - Proceeds before Intended Use* (effective for annual periods beginning on or after 1 January 2022)
- Amendments to SFRS(I) 1-37 *Provisions, Contingent Liabilities and Contingent Assets: Onerous Contracts - Cost of Fulfilling a Contract* (effective for annual periods beginning on or after 1 January 2022)

The adoption of the above new or amended SFRS(I)s, SFRS(I) Interpretations and amendments to SFRS(I)s did not have any significant impact on the financial statements of the Group.

2.3 Basis of Consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities (including structured entities) controlled by the Company and its subsidiaries.

The financial statements of subsidiaries acquired or disposed of during the financial year are included or excluded from the consolidated financial statements from their respective dates of obtaining control or ceasing control. All intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary, adjustments are made to the financial statements of subsidiaries to ensure consistency of accounting policies with those of the Group.

Acquisition of subsidiaries is accounted for using the acquisition method. The cost of an acquisition is measured at the aggregate of the fair value of the assets transferred, equity instruments issued, liabilities incurred or assumed at the date of exchange and the fair values of any contingent consideration arrangement and any pre-existing equity interest in the subsidiary. Acquisition-related costs are recognised in the profit or loss account as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any non-controlling interests, except for deferred tax assets/liabilities, share-based related accounts and assets held for sale.

Any excess of the cost of business combination over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities represents goodwill. Any excess of the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of business combination is recognised in the profit or loss account on the date of acquisition.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted and the difference between the change in the carrying amounts of the non-controlling interests and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When control of a subsidiary is lost as a result of a transaction, event or other circumstance, the Group derecognises all assets (including any goodwill), liabilities and non-controlling interests at their carrying amounts. Amounts previously recognised in other comprehensive income in respect of that former subsidiary are reclassified to the profit or loss account or transferred directly to revenue reserves if required by a specific Standard. Any retained interest in the former subsidiary is recognised at its fair value at the date control is lost, with the gain or loss arising recognised in the profit or loss account.

On a transaction-by-transaction basis, the measurement of non-controlling interests is either at fair value or at the non-controlling interests' share of the fair value of the identifiable net assets of the acquiree.

Contingent consideration is measured at fair value at the acquisition date; subsequent adjustments to the consideration are recognised against goodwill only to the extent that they arise from better information about the fair value at the acquisition date, and they occur within the 'measurement period' (a maximum of 12 months from the acquisition date). All other subsequent adjustments are recognised in the profit or loss account.

Non-controlling interests are that part of the net results of operations and of net assets of a subsidiary attributable to the interests which are not owned directly or indirectly by the owners of the Company. They are shown separately in the consolidated statement of comprehensive income, statement of changes in equity and balance sheet. Total comprehensive income is attributed to the non-controlling interests in a subsidiary based on their respective interests in a subsidiary, even if this results in the non-controlling interests having a deficit balance.

2. Significant accounting policies (continued)

2.4 Fixed Assets

Fixed assets are initially stated at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment loss, if any. The cost initially recognised includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Subsequent expenditure is added to the carrying amount only when it is probable that future economic benefits will flow to the entity and the cost can be measured reliably. When the carrying amount of an asset is greater than its estimated recoverable amount, it is written down to its recoverable amount. Profits or losses on disposal of fixed assets are included in the profit or loss account.

Depreciation of fixed assets is calculated on a straight-line basis to write off the cost of the fixed assets over their estimated useful lives. No depreciation is provided on freehold land and capital work-in-progress. The estimated useful lives of other fixed assets are as follows:

Buildings on freehold land	30 to 50 years
Buildings on leasehold land	Over period of lease (ranging from 10 to 50 years)
Plant, machinery & equipment	3 to 30 years
Networks and related application systems	5 to 25 years
Furniture, fittings & office equipment	2 to 15 years

The estimated useful lives, residual values and depreciation method are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis.

2.5 Investment Properties

Investment properties comprise completed properties and properties under construction or re-development held to earn rental and/or for capital appreciation and right-of-use assets relating to leasehold land that is held for long term capital appreciation or for a currently indeterminate use. Investment properties are initially recognised at cost and subsequently measured at fair value, determined annually based on valuations by independent professional valuers, except for significant investment properties which are revalued on a half-yearly basis. Changes in fair value are recognised in the profit or loss account. The cost of major renovations or improvements is capitalised and the carrying amounts of the replaced components are recognised in the profit or loss account.

On disposal of an investment property, the difference between the disposal proceeds and the carrying amount is recognised in the profit or loss account.

2.6 Subsidiaries

A subsidiary is an entity (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Company has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including:

- The size of the Company's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- Potential voting rights held by the Company, other vote holders or other parties;
- Rights arising from other contractual arrangements; and
- Any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Investments in subsidiaries are stated in the financial statements of the Company at cost less accumulated impairment losses. On disposal of a subsidiary, the difference between net disposal proceeds and carrying amount of the investment is taken to profit or loss.

2.7 Associated Companies and Joint Ventures

An associated company is an entity, not being a subsidiary, over which the Group has significant influence, but not control.

A joint venture is an entity, not being a subsidiary, over which the Group has joint control as a result of contractual arrangements, and rights to the net assets of the entities.

Investments in associated companies and joint ventures are stated in the Company's financial statements at cost less any impairment losses. On disposal of an associated company or a joint venture, the difference between net disposal proceeds and the carrying amount of the investment is taken to the profit or loss account.

Investments in associated companies and joint ventures are accounted for in the consolidated financial statements using the equity method of accounting less impairment loss, if any. The Group's share of profit or loss and other comprehensive income of the associated company or joint venture is included in the consolidated profit or loss account and consolidated statement of comprehensive income respectively. The Group's share of net assets of the associated company or joint venture is included in the consolidated balance sheet.

When the Group's investment in an associated company or a joint venture is held by, or is held indirectly through, a subsidiary that is a venture capital organisation, or a mutual fund, unit trust and similar entities, the Group may elect to measure that investment at fair value through profit or loss. This election is made separately for each associated company or joint venture, at initial recognition of the associated company or joint venture.

Any excess of the cost of acquisition over the Group's share of net identifiable assets, liabilities and contingent liabilities of the associated company or joint venture recognised at the date of acquisition measured at their fair values is recognised as goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of the investment. Any excess of the Group's share of the net identifiable assets, liabilities and contingent liabilities measured at their fair values over the cost of acquisition, after reassessment, is recognised immediately in the profit or loss account as a bargain purchase gain.

2.8 Intangibles

Goodwill

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest (if any) in the entity over the net identifiable assets acquired and the liabilities assumed measured at their fair values at acquisition date. Goodwill is initially recognised as an asset at cost and is subsequently measured at cost less any impairment losses. If the Group's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any), the excess is recognised immediately in the profit or loss account as a bargain purchase gain.

Spectrum Rights

These comprise expenditure relating to one-time charges paid to acquire spectrum rights and telecommunications licenses or access codes. These intangible assets are measured initially at cost and subsequently carried at cost less any accumulated amortisation and any accumulated impairment losses. Spectrum rights are amortised on a straight-line basis over the estimated economic useful life of 4 to 16 years.

Brand

The brand was acquired as part of a business combination. The brand value will be amortised over the useful life which is estimated to be 30 years.

Customer Contracts and Customer Relationships

Customer contracts and customer relationships are identified and recognised separately from goodwill. The cost of customer contracts and relationships is at their fair value at the acquisition date and subsequently carried at cost less accumulated amortisation and accumulated impairment losses. Costs incurred which are expected to generate future economic benefits are recognised as intangibles and amortised on a straight-line basis over their useful lives, ranging from 1 to 17 years.

Other Intangible Assets

Other intangible assets include development expenditure and internet protocol (IP) address, initially recognised at cost and subsequently carried at cost less accumulated amortisation. Costs incurred which are expected to generate future economic benefits are recognised as intangibles and amortised on a straight-line basis over their useful lives, ranging from 3 to 15 years.

Other intangible assets also include management rights which is initially recognised at cost upon acquisition and subsequently carried at cost less accumulated impairment losses, if any. The useful life of the management rights is estimated to be indefinite because management believes there is no foreseeable limit to the period over which the management rights is expected to generate net cash inflows for the Group.

2.9 Service Concession Arrangement

The Group has an existing service concession arrangement with a governing agency (the grantor) to design, build, own and operate a desalination plant in Singapore. Under the service concession arrangement, the Group will operate the plant for 25 years. At the end of the concession period, the grantor may require the plant to be handed over in a specified condition or to be demolished at reasonable costs borne by the grantor. Such service concession arrangement falls within the scope of SFRS(I) INT 12 *Service Concession Arrangements*.

The Group constructs the plant (construction services) used to provide public services and operates and maintains the plant (operation services) for the concession period as specified in the contract. The Group recognises and measures revenue in accordance with SFRS(I) 15 for the services it performs.

The Group recognises a financial asset arising from the provision of the construction services when it has a contractual right to receive fixed and determinable amounts of payments irrespective of the output produced. The consideration receivable is measured initially at fair value and subsequently measured at amortised amount using the effective interest method.

2. Significant accounting policies (continued)

2.10 Financial Assets

The Group classifies its financial assets in the following measurement categories:
- Amortised cost;
- Fair value through other comprehensive income ("FVOCI"); and
- Fair value through profit or loss ("FVPL").

The classification depends on the Group's business model for managing the financial assets as well as the contractual terms of the cash flows of the financial asset. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. The Group reclassifies debt instruments when and only when its business model for managing those assets changes.

Purchases and sale of financial assets are recognised on the trade date when the Group commits to purchase or sell the assets.

At initial recognition, the Group measures a financial asset at its fair value including, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in the profit or loss account.

(i) Debt instruments

Debt instruments mainly comprise of cash and bank balances, trade, intercompany and other receivables (excluding prepayments) and investments. Trade, intercompany and other receivables are stated initially at fair value and subsequently at amortised cost as reduced by appropriate allowances for estimated irrecoverable amounts.

Debt instruments that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. A gain or loss on a debt instrument that is subsequently measured at amortised cost and is not part of a hedging relationship is recognised in the profit or loss account when the asset is derecognised or impaired. Interest income from these financial assets is recognised in the profit or loss account using the effective interest rate method.

Debt instruments that are held for trading as well as those that do not meet the criteria for classification as amortised cost or FVOCI are classified as FVPL. Movement in fair values and interest income is recognised in the profit or loss account in the period in which it arises.

Debt instruments that are held for collection of contractual cash flows and for sale, and where the assets' cash flows represent solely payments of principal and interest, are classified as FVOCI. Movements in fair values are recognised in other comprehensive income ("OCI") and accumulated in fair value reserve, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses, which are recognised in the profit or loss account. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to the profit or loss account. Interest income from these financial assets is recognised in the profit or loss account using the effective interest rate method.

(ii) Equity investments

The Group subsequently measures all its equity investments at their fair values. Equity investments are classified as FVPL with movements in their fair values recognised in the profit or loss account in the period in which the changes arise. For equity investments where the Group has elected to recognise changes in fair value in OCI, movements in fair values are presented as "fair value changes" in OCI. Dividends from equity investments are recognised in the profit or loss account.

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

On disposal of a debt instrument, the difference between the carrying amount and the sale proceeds is recognised in the profit or loss account. Any amount previously recognised in other comprehensive income relating to that asset is reclassified to the profit or loss account.

On disposal of an equity investment, the difference between the carrying amount and sales proceed is recognised in the profit or loss account if there was no election made to recognise fair value changes in other comprehensive income. If there was an election made, any difference between the carrying amount and sale proceeds would be recognised in other comprehensive income and transferred to retained profits along with the amount previously recognised in other comprehensive income relating to that asset.

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and bank deposits which are subject to an insignificant risk of change in value. For cash subjected to restriction, assessment is made on the economic substance of the restriction and whether they meet the definition of cash and cash equivalents.

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet when the Company and the Group has a legally enforceable right to set off the recognised amounts; and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously. A right to set-off must be available today rather than being contingent on a future event and must be exercisable by any of the counterparties, both in the normal course of business and in the event of default, insolvency or bankruptcy.

2.11 Derivative Financial Instruments and Hedge Accounting

Derivative financial instruments are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at fair value. Derivative financial instruments are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

Gains or losses arising from changes in fair value of derivative financial instruments that do not qualify for hedge accounting are taken to the profit or loss account.

For cash flow hedges, the effective portion of the gains or losses on the hedging instrument is recognised directly in other comprehensive income and accumulated in the hedging reserve, while the ineffective portion is recognised in the profit or loss account. Amounts taken to other comprehensive income are reclassified to the profit or loss account when the hedged transaction affects the profit or loss account.

For fair value hedges, changes in the fair value of the designated hedging instruments are recognised in the profit or loss account. The hedged item is adjusted to reflect change in its fair value in respect of the risk hedged, with any gain or loss recognised in the profit or loss account.

For net investment hedges, the Group designates certain foreign currency borrowings as net investment hedges of foreign operations. These hedging instruments are accounted for similarly to cash flow hedges.

When foreign currency borrowings are designated as net investments hedges of foreign operations, the effective portion of currency translation differences is recognised in other comprehensive income and presented in the translation reserve within equity. Any ineffective portion of the currency translation differences is recognised immediately in profit or loss. The amount recognised in other comprehensive income is reclassified to profit or loss on disposal of the foreign operation.

The Group documents at the inception of the transaction the relationship between the hedging instruments and hedged items, as well as its risk management objectives and strategies for undertaking various transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives designated as hedging instruments are highly effective in offsetting changes in fair value or cash flows of the hedged items.

2.12 Investments

Investments include equity investments classified as FVPL and FVOCI and debt investments classified as FVPL. See further in Note 2.10.

The fair value of investments that are traded in active markets is based on quoted market prices at the balance sheet date. The quoted market prices are the current bid prices. The fair value of investments that are not traded in an active market is determined using valuation techniques. Such techniques include using recent arm's length transactions, reference to the underlying net asset value of the investee companies and discounted cash flow analysis.

2.13 Stocks

Stocks, consumable materials and supplies are stated at the lower of cost and net realisable value, cost being principally determined on the weighted average method. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and applicable variable selling expenses.

Properties held for sale are stated at the lower of cost and net realisable value. Cost includes cost of land and construction, related overheads expenditure, and financing charges incurred during the period of development. Net realisable value represents the estimated selling price less costs to be incurred in selling the property.

Each property under development is accounted for as a separate project. Where a project comprises more than one component or phase with a separate temporary occupation permit, each component or phase is treated as a separate project, and interest and other net costs are apportioned accordingly.

2.14 Contract Assets and Contract Liabilities

For contract where the customer is invoiced on a milestone payment schedule or over the period of the contract, a contract asset is recognised if the value of the contract work transferred by the Group exceed the receipts from the customer, and a contract liability is recognised if the receipts from the customer exceed the value of the contract work transferred by the Group.

2.15 Impairment of Assets

Financial Assets

The Group assesses on a forward looking basis the expected credit losses associated with its debt financial assets carried at amortised cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. Note 35 details how the Group determines whether there has been a significant increase in credit risk.

For trade receivables and contract assets, the Group applies the simplified approach permitted by the SFRS(I) 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

2. Significant accounting policies (continued)

Goodwill
Goodwill is tested for impairment annually and whenever there is an indication that the goodwill may be impaired. Goodwill included in the carrying amount of an associated company or joint venture is tested for impairment as part of the investment.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units ("CGU"s) expected to benefit from the synergies of the combination. An impairment loss is recognised in the profit or loss account when the carrying amount of the CGU, including goodwill, exceeds the recoverable amount of the CGU. The recoverable amount of a CGU is the higher of the CGU's fair value less cost to sell and value-in-use. The impairment loss is allocated first to reduce the carrying amount of goodwill allocated to the CGU and then, to reduce the carrying amount of the other assets in the unit on a pro-rata basis. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Other Non-Financial Assets
Tangible and intangible assets are tested for impairment whenever there is any indication that these assets may be impaired.

Management rights are tested for impairment annually and whenever there is an indication that the management rights may be impaired.

For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less cost to sell and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash flows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for CGU to which the asset belongs.

If the recoverable amount of the asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. The difference between the carrying amount and recoverable amount is recognised as impairment loss in the profit or loss account. An impairment loss for an asset is reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of the asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset is recognised in the profit or loss account.

2.16 Financial Liabilities and Equity Instruments

Financial liabilities include trade, intercompany and other payables, bank loans and overdrafts. Trade, intercompany and other payables are stated initially at fair value and subsequently carried at amortised cost. Interest-bearing bank loans and overdrafts are initially measured at fair value and are subsequently measured at amortised cost. Interest expense calculated using the effective interest method is recognised over the term of the borrowings in accordance with the Group's accounting policy for borrowing costs (see Note 2.22).

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments are recorded at the proceeds received, net of direct issue costs.

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

Financial guarantees are initially recognised at their fair values plus transaction costs in the balance sheet. Financial guarantees are subsequently amortised to the profit or loss account over the period of the guarantee. If it is probable that the liability will be higher than the amount initially recognised less amortisation, the liability is recorded at the higher amount with the difference charged to the profit or loss account.

2.17 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. Provisions are not recognised for future operating losses.

Provision for warranties is set up upon completion of a contract to cover the estimated liability which may arise during the warranty period. This provision is based on service history. Any surplus of provision will be written back at the end of the warranty period while additional provisions, where necessary, are made when known. These liabilities are expected to be incurred over the applicable warranty periods.

Provision for onerous contracts is recognised when a contract is onerous. An onerous contract is considered to exist where the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The provision for onerous contract represents the present value of the management's best estimate of the future outflow of economic benefits that the Group is presently obliged to make under its obligations.

Provision for claims is made for the estimated cost of all claims notified but not settled at the balance sheet date, less recoveries, using the information available at the time. Provision is also made for claims incurred but not reported at the balance sheet date based on historical claims experience, modified for variations in expected future settlement. The utilisation of provisions is dependent on the timing of claims.

2.18 Leases

When a Group company is the lessee

At the inception of the contract, the Group assesses if the contract contains a lease. A contract contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Reassessment is only required when the terms and conditions of the contract are changed.

Right-of-use assets

The Group recognises a right-of-use asset and lease liability at the date which the underlying asset is available for use. Right-of-use assets are measured at cost which comprises the initial measurement of lease liabilities adjusted for any lease payments made at or before the commencement date and lease incentive received. Any initial direct costs that would not have been incurred if the lease had not been obtained are added to the carrying amount of the right-of-use assets. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

Right-of-use assets (except for those which meets the definition of an investment property) are presented as a separate line on the balance sheets. Right-of-use assets which meets the definition of an investment property is presented within "Investment Properties" and accounted for in accordance with Note 2.5.

Lease liabilities

The initial measurement of lease liability is measured at the present value of the lease payments discounted using the implicit rate in the lease, if the rate can be readily determined. If that rate cannot be readily determined, the Group uses its incremental borrowing rate.

Lease payments include the following:

- Fixed payment (including in-substance fixed payments), less any lease incentives receivables;
- Variable lease payment that are based on an index or rate, initially measured using the index or rate as at the commencement date;
- Amount expected to be payable under residual value guarantees;
- The exercise price of a purchase option, if is reasonably certain to exercise the option; and
- Payment of penalties for terminating the lease, if the lease term reflects the Group exercising that option.

For contract that contain both lease and non-lease components, the Group allocates the consideration to each lease component on the basis of the relative stand-alone price of the lease and non-lease component.

Lease liabilities are presented as a separate line on the balance sheets.

Lease liability is measured at amortised cost using the effective interest method. Lease liability shall be remeasured when:

- There is a change in future lease payments arising from changes in an index or rate;
- There is a change in the Group's assessment of whether it will exercise an extension option; or
- There is a modification in the scope or the consideration of the lease that was not part of the original term.

Lease liability is remeasured with a corresponding adjustment to the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

Short term and low value leases

The Group has elected to not recognise right-of-use assets and lease liabilities for short-term leases that have lease terms of 12 months or less and low value leases. Lease payments relating to these leases are expensed to profit or loss on a straight-line basis over the lease term.

Variable lease payments

Variable lease payments that are not based on an index or a rate are not included as part of the measurement and initial recognition of the lease liability. The Group recognises these lease payments in profit or loss in the periods that triggered such lease payments. Details of the variable lease payments are disclosed in Note 9.

When a Group company is the lessor

Operating leases

Assets leased out under operating leases are included in investment properties and are stated at fair values. Rental income (net of any incentive given to lessee) is recognised on a straight-line basis over the lease term.

Finance leases

Leases where the Group has transferred substantially all risks and rewards incidental to ownership of the leased assets to the lessees, are classified as finance leases.

The leased asset is derecognised and the present value of the lease receivable is recognised on the balance sheet and included in debtors and long-term receivables. The difference between the gross receivable and the present value of the lease receivable is recognised as unearned finance income.

Each lease payment received is applied against the gross investment in the finance lease receivable to reduce both the principal and the unearned finance income. The finance income is recognised in profit or loss on a basis that reflects a constant periodic rate of return on the net investment in the finance lease receivable.

Initial direct costs incurred by the Group in negotiating and arranging finance leases are added to finance lease receivables and reduce the amount of income recognised over the lease term.

2. Significant accounting policies (continued)

2.19 Assets (or disposal groups) classified as Held for Sale and discontinued operations

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. The assets are not depreciated or amortised while they are classified as held for sale. This condition is regarded as met only when the sale is highly probable and the asset (or disposal groups) is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

Non-current assets (or disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell.

A discontinued operation is a component of an entity that either has been disposed of, or that is classified as held for sale and:
- represents a separate major line of business or geographical area of operations; or
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

2.20 Revenue

Revenue consists of:
- Revenue recognised on rigbuilding, shipbuilding and repairs, property construction and long term engineering contracts;
- Sale of goods;
- Rendering of services; and
- Rental income from investment properties.

Revenue recognition

The Group enters into rigbuilding, shipbuilding and repairs, property construction and long term engineering contracts with customers. These contracts are fixed in prices. Revenue is recognised when the control over the contract work is transferred to the customer. At contract inception, the Group assesses whether the Group transfers control of the contract work over time or at a point in time by determining if (a) its performance does not create an asset with an alternative use to the Group; and (b) the Group has an enforceable right to payment for performance completed to-date.

The contract work, except for overseas property construction contracts, has no alternative use for the Group due to contractual restriction, and the Group has enforceable rights to payment arising from the contractual terms. For these contracts, revenue is recognised over time by reference to the Group's progress towards completing the construction of the contract work. For overseas property construction contracts, the Group does not have enforceable rights to payment arising from the contractual terms. Revenue from overseas property construction contracts is recognised at a point in time when the rights to payment become enforceable.

The measure of progress for rigbuilding contracts, and shipbuilding and repair contracts, is determined based on the estimation of the physical proportion of the contract work completed for the contracts with reference to engineers' estimates. The measure of progress for property construction and long term engineering contracts is determined based on the proportion of contract costs incurred to-date to the estimated total contract costs. Costs incurred that are not related to the contract or that do not contribute towards satisfying a performance obligation are excluded from the measure of progress.

An impairment loss is recognised in the profit or loss to the extent that the carrying amount of capitalised contract costs exceeds the expected remaining consideration less any directly related costs not yet recognised as expenses.

Revenue from sale of goods is recognised when the Group satisfies a performance obligation by transferring control of a promised good or service to the customer. The amount of revenue recognised is the amount of the transaction price allocated to the satisfied performance obligation.

Revenue from the rendering of services including electricity supply, logistic services, operations and maintenance under service concession arrangements, asset management fees, and telecommunication services is recognised over the period in which the services are rendered, by reference to completion of the specific transaction assessed on the basis of the actual services provided as a proportion of the total services to be performed or in accordance with terms of the service agreements.

Revenue arising from additional claims and variation orders, whether billed or unbilled, is recognised when negotiations have reached an advanced stage such that it is probable that the customer will accept the claims or approve the variation orders, and the amount that it is probable will be accepted by the customer can be measured reliably.

Rental income from operating leases on investment properties is recognised on a straight-line basis over the lease term.

2.21 Government Grants

Grants from the government are recognised as a receivable at their fair value when there is reasonable assurance that the grant will be received and the Group will comply with all the attached conditions.

Government grants receivable are recognised as income over the periods necessary to match them with the related costs which they are intended to compensate, on a systematic basis. Government grants relating to expenses are shown separately as other income.

2.22 Borrowing Costs

Borrowing costs incurred to finance the development of properties and acquisition of fixed assets are capitalised during the period of time that is required to complete and prepare the asset for its intended use. Other borrowing costs are taken to the profit or loss account over the period of borrowing using the effective interest rate method.

For Singapore trading properties which the Group recognises revenue over time, borrowing costs on the portion of the property not ready for transfer of control to the purchasers are capitalised until the time when control is capable of being transferred to the purchasers.

2.23 Employee Benefits

Defined Contribution Plan

The Group makes contributions to pension schemes as defined by the laws of the countries in which it has operations. In particular, the Singapore companies make contributions to the Central Provident Fund in Singapore, a defined contribution pension scheme. Contributions to pension schemes are recognised as an expense in the period in which the related service is performed.

Employee Leave Entitlement

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for leave as a result of services rendered by employees up to the balance sheet date.

Share Plans Scheme

The Group operates share-based compensation plans. The fair value of the employee services received in exchange for the grant of restricted shares and performance shares is recognised as an expense in the profit or loss account with a corresponding increase in the share plan reserve over the vesting period. The total amount to be recognised over the vesting period is determined by reference to the fair values of the restricted shares and performance shares granted on the respective dates of grant.

At each balance sheet date, the Group revises its estimates of the number of share plan awards that are expected to vest on the vesting dates, and recognises the impact of the revision of the estimates in the profit or loss account, with a corresponding adjustment to the share plan reserve over the remaining vesting period.

No expense is recognised for share plan awards that do not ultimately vest, except for share plan awards where vesting is conditional upon a market condition, which are treated as vested irrespective of whether or not the market condition is satisfied, provided that all other performance and/or service conditions are satisfied.

When share plan awards are released, the share plan reserve is transferred to share capital if new shares are issued, or to the treasury shares account when treasury shares are re-issued to the employee.

2.24 Income Taxes

Current income tax is recognised at the amounts expected to be paid to or recovered from the tax authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date.

Deferred income tax assets/liabilities are recognised for deductible/taxable temporary differences arising between the tax bases of assets and liabilities and their carrying amounts. The principal temporary differences arise from depreciation, valuation of investment properties, unremitted offshore income and future tax benefits from certain provisions not allowed for tax purposes until a later period. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax is measured at the tax rates that are expected to apply when the related deferred income tax asset/liability is realised/settled, based on the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date, and based on the tax consequence that will follow from the manner in which the Group expects, at the balance sheet date, to recover or settle the carrying amounts of its assets and liabilities.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Current and deferred tax are recognised as an expense or income in the profit or loss account, except when they relate to items credited or debited directly to equity, in which case the tax is also recognised directly in equity, or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in calculating goodwill or determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over cost.

2. Significant accounting policies (continued)

2.25 Foreign Currencies

Functional Currency
Items included in the financial statements of each entity in the Group are measured using the currency that best reflects the economic substance of the underlying events and circumstances relevant to that entity ("functional currency").

The financial statements of the Group and the balance sheet and statement of changes in equity of the Company are presented in Singapore Dollars, which is the functional currency of the Company.

Foreign Currency Transactions
Transactions in foreign currencies are translated at exchange rates approximating those ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated at exchange rates approximating those ruling at that date. Exchange differences arising from translation of monetary assets and liabilities are taken to the profit or loss account. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Foreign Currency Translation
For inclusion in the Group's financial statements, the assets and liabilities of foreign subsidiaries, associated companies and joint ventures that are in functional currencies other than Singapore Dollars are translated into Singapore Dollars at the exchange rates ruling at the balance sheet date. Profit or loss of foreign subsidiaries, associated companies and joint ventures are translated into Singapore Dollars using the average exchange rates for the financial year. Goodwill and fair value adjustments arising on acquisition of a foreign entity are treated as assets and liabilities of the foreign subsidiaries, associated companies and joint ventures. Exchange differences due to such currency translation are recognised in other comprehensive income and accumulated in Foreign Exchange Translation Account until disposal.

Disposal or partial disposal of a foreign operation
On the disposal of a foreign operation (i.e. a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or loss of joint control over a jointly controlled entity that includes a foreign operation, or loss of significant influence over an associated company that includes a foreign operation), all of the accumulated exchange differences in respect of that operation attributable to the Group are reclassified from equity to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognised, but they are not reclassified to profit or loss.

In the case of a partial disposal (i.e. no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (i.e. of associated companies or jointly controlled entities that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

2.26 Share Capital and Perpetual Securities

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of new ordinary shares are deducted against the share capital account.

When shares are reacquired by the Company, the amount of consideration paid and any directly attributable transaction cost is recognised directly in equity. Reacquired shares are classified as treasury shares and presented as a deduction from total equity. When treasury shares are subsequently sold or reissued, the cost of treasury shares is reversed from the treasury shares account and the realised gain or loss on sale or reissue, net of any directly attributable incremental transaction costs, is recognised in non-distributable capital reserve. Voting rights related to treasury shares are nullified for the Group and no dividends are allocated to them respectively.

Perpetual securities which do not result in the Group having a contractual obligation to deliver cash or another financial asset, or to exchange financial assets or financial liabilities with the holder under conditions that are potentially unfavourable to the Group, are classified as equity. Distributions arising from such instruments are recognised in equity as there is no contractual obligation to pay distributions on these instruments. Incremental external costs directly attributable to the issuance of such instruments are accounted for as a deduction from equity.

2.27 Segment Reporting

The Group has five main segments, namely Energy & Environment, Urban Development, Connectivity, Asset Management and Corporate & Others. Management monitors the results of each of the main segments for the purpose of making decisions on resource allocation and performance assessment.

2.28 Critical Accounting Judgments and Estimates

(a) Critical judgments in applying the Group's accounting policies

In the process of applying the Group's accounting policies, there is no instance of application of judgments which is expected to have a significant effect on the amounts recognised in the financial statements, apart from those involving estimations and as follows:

(i) Control over Keppel REIT

The Group has approximately 47% (2021: approximately 47%) gross ownership interest of units in Keppel REIT as at 31 December 2022. Keppel REIT is managed by Keppel REIT Management Limited ("KRML"), a wholly-owned subsidiary of the Group. The Group has provided an undertaking to the trustee of Keppel REIT to grant the other unitholders the right to endorse or re-endorse the appointment of directors of KRML at the annual general meetings of Keppel REIT. The Group has determined that it does not have control over Keppel REIT but continues to have significant influence over the investment.

(ii) Interest Rate Benchmark Reform – Phase 1

SOR

In calculating the change in fair value attributable to the hedged SGD borrowings, the Group assumes that:

- The existing floating-rate borrowings will move to SORA at the same time as the interest rate swaps (hedging instruments) with similar adjustment spreads;
- No other material changes to the terms of the borrowings and interest rate swaps are anticipated; and
- The interest rate swaps will not be derecognised.

Given that the critical terms are assumed to continue to match, the change in fair value of the hedged risk is the same as the change in fair value of the hedging instrument. Therefore, no hedge ineffectiveness is recognised as a result of the expected transition of the cash flow hedges from SOR to SORA.

USD LIBOR

In calculating the change in fair value attributable to the hedged USD borrowings, the Group assumes that:

- The existing floating-rate borrowings will move to SOFR at the same time as the interest rate swaps (hedging instruments) with similar adjustment spreads;
- No other material changes to the terms of the borrowings and interest rate swaps are anticipated; and
- The interest rate swaps will not be derecognised.

Given that the critical terms are assumed to continue to match, the change in fair value of the hedged risk is the same as the change in fair value of the hedging instrument. Therefore, no hedge ineffectiveness is recognised as a result of the expected transition of the cash flow hedges from USD LIBOR to SOFR.

(b) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are as follows:

(i) Assessment of carrying amount of disposal group held for sale

As disclosed in Note 37, the assets and liabilities related to Keppel O&M for the Proposed Combination, excluding the out-of-scope assets, had been presented in the balance sheet as "Disposal group classified as held for sale" following the definitive agreements for the proposed combination of Keppel O&M and Sembcorp Marine and for the sale of Keppel O&M's legacy rigs and associated receivables to a new and separate entity.

Specifically, the rigs under deferred delivery and secured trade receivables that are subject to the construction contracts, stocks under work-in-progress and fixed assets will be sold to the new and separate entity at its carrying value at the earlier of 30 June 2023 and date of completion of the proposed combination of Keppel O&M and Sembcorp Marine.

Whilst the assessment of the carrying amount of these assets is subjected to significant estimation uncertainty (as discussed below), the global economic environment has gradually recovered from COVID-19 and the oil and gas industry, in particular, has seen improvements in oil price recovery and increasing activities with more tenders awarded with higher dayrates contracted. The Group have been closely monitoring the market and industry developments relating to utilisation rates, dayrates, oil price outlook and other relevant information.

For rigs under construction with deferred delivery (contract assets and secured receivables), in the event that the customers are unable to fulfil their contractual obligations, management has considered the most likely outcome for the rigs delivered or under construction is for the Group to take possession of the asset and charter it out to work with an operator. The value of the rig on this basis would be based on an estimation of the value-in-use ("VIU") of the rig, i.e. through estimating the net present value of cash flows from operating the rig over the useful life of the asset. The assessment of the carrying value of stocks under work-in-progress and certain fixed assets were assessed in conjunction with the recoverability of these contract assets and secured receivables.

2. Significant accounting policies (continued)

Management has engaged independent professional firms to assist in their assessment on whether the VIU of the rigs exceed the carrying values of contract assets and trade receivables as at 31 December 2022. The VIU model used by the independent firm is consistent with prior years and is based on Discounted Cash Flow ("DCF") calculations that cover each class of rigs. In addition to the independent firm responsible for the valuation based on DCF calculations, management has also engaged a separate industry expert to independently provide a view of the market outlook, assumptions and parameters which are used in the estimation of VIU. Key inputs into the estimation of the VIU include dayrates, cost assumptions, utilisation rates, discount rates and estimated commencement of deployment of the assets. The valuation of the rigs would decrease if the expected income from operating the rigs decline, or discount rates were higher, or the estimated commencement of deployment were delayed.

a) Contract Assets and Receivables

i. Contracts with Sete Brasil ("Sete")

The Group had previously entered into contracts with Sete for the construction of six rigs for which progress payments from Sete had ceased since November 2014. In April 2016, Sete filed for bankruptcy protection and its authorised representatives had been in discussion with the Group on the eventual completion and delivery of some of the rigs. In October 2019, the Settlement Agreement as well as the winning bid proposal for Magni Partners (Bermuda) Ltd ("Magni") to purchase four Sete subsidiaries, two of which are special-purpose entities ("SPEs") for uncompleted rigs constructed by the Group, was approved and the Group had obtained full title to the remaining four uncompleted rigs, albeit two of which are still encumbered. Sete is to procure the release of the mortgage on the two encumbered rigs placed with the ship registry. Carrying amount of the equipment that the Group had salvaged from these four uncompleted rigs was approximately $109,974,000 as at 31 December 2022 (2021: $145,598,000). During the financial year, the Group had also successfully completed settlements with all vendors for related contract costs for the four uncompleted rigs with a total savings of $65,763,000. This amount has been written back in the profit or loss during the financial year and the remaining provision for settlement as at 31 December 2022 is $36,063,000.

The receivables the Group has with Sete of approximately US$260,000,000 shall be recognised as an undisputed debt and be recognised as part of the debt under the Judicial Reorganisation Plan. The outstanding amount will be paid to the Group proportionally and pari passu with other creditors of Sete as part of, and out of proceeds of, its Judicial Reorganisation Plan. Management estimated a possible payout from the Plan of approximately US$8,900,000.

Management performed an assessment of the estimated recovery of the two rigs which Magni had bidded to purchase from Sete. Carrying amount of these two rigs was approximately $157,574,000 (net of cumulative losses) as at 31 December 2022 (2021: $157,449,000).

Management estimated the net present value of the cashflows relating to the construction contract with Magni or another investor to replace Magni at similar terms. In addition, management performed an assessment to estimate the cost of discontinuance of related agreements of the EPC contracts with Sete, as well as the possible option of repossessing the rigs, complete the construction and charter out to extract value from the uncompleted rigs.

In estimating the charter rates, management have considered the assumptions provided by independent professional firms.

Arising from the above assessment, the loss allowance for trade debtors of $183,000,000 and the provision for related contract costs of $245,000,000 made in prior years remain adequate to the exposure relating to the EPC contracts with Sete. Total cumulative loss recognised in relation to these rig contracts amounted to $410,237,000 after the write-back of the provision as at 31 December 2022 (2021: $476,000,000).

The above assessment had been made with the following key assumptions, taking into consideration the likelihood and expected financial impact of the various possible outcomes:

(i) Petrobras will continue to require the rigs for execution of its business plans and will charter them at the dayrates and tenure previously agreed with Sete;
(ii) Magni or any other potential investor will be able to secure financing to complete the purchase of the rigs with Sete and complete the construction contract with the Group at the terms previously discussed with Magni;
(iii) If Magni or another investor is unable to purchase the rigs from Sete, KOM would regain possession of the rigs, complete the construction and charter them out. The recoverable amounts under this scenario are based on the VIU of the rigs determined by management with the assistance of the independent professional firms as detailed above; and
(iv) The future cost of construction of the rigs are not materially different from management's current estimation.

The Group has considered that a combination of reasonable change in the assumptions above could eliminate the headroom in the recoverable amount over the carrying amounts and hence has not reversed any of the previously recognised expected credit loss as at 31 December 2022.

ii. *Other contracts*

During the financial year, the Group formally terminated several construction contracts of rigs, of which some of these rigs have entered into bareboat charter contracts. As a result, these rigs were reclassified to stocks or fixed assets. Please see the following sections on the significant estimations on these stocks and fixed assets.

As at 31 December 2022, the Group had several rigs that were under construction for customers where customers had requested for deferral of delivery dates of the rigs in prior years and have higher counterparty risks, amounting to $572,179,000 (31 December 2021: $1,707,190,000).

The Group had also delivered rigs to customers where receipt of the construction revenue has been deferred under certain financing arrangements, amounting to $377,964,000 as at 31 December 2022 (2021: $791,952,000). These receivables are secured on the delivered rigs.

Management has performed an assessment of the expected credit loss on contract assets and trade receivables of deferred projects and of rigs delivered on financing arrangements to determine if a provision for expected loss is necessary as at 31 December 2022.

Based on the results of the assessments, the Group did not recognise any expected credit loss on contract assets and receivables during the financial year ended 31 December 2022 (2021: expected credit loss allowance of $75,952,000 on receivables).

The valuations of the rigs based on estimated VIU were most sensitive to discount rates and dayrates.

- A discount rate of 9.0% has been used in the valuation as at 31 December 2022 (2021: 7.6%). An increase of 1% of the discount rate would not result in additional expected credit loss (2021: $7,000,000).
- A decrease in dayrates of US$5,000 per day across the entire asset useful life of 25 years would not result in additional expected credit loss (2021: $nil).

The Group has considered that a combination of reasonable change in the assumptions above could eliminate the headroom in the recoverable amount over the carrying amounts and hence have not reversed any of the previously recognised expected credit loss as at 31 December 2022.

b) Stocks at net realisable value

The net realisable value of stocks represents the estimated selling price for these stocks less all estimated cost of completion and costs necessary to make the sale.

As at 31 December 2022, the carrying value of stocks under work-in-progress amounted to $1,548,872,000. This balance includes the stocks that were transferred from contracts assets and receivables following the termination of the construction contracts in Note 2.28(b)(i)(a)(ii) above of $374,694,000 during 2022.

Based on the results of the VIU assessments, the Group did not recognise further impairment on stocks under work-in-progress for the financial year ended 31 December 2022 (2021: $nil).

The valuations of these stocks under work-in-progress based on estimated VIU were most sensitive to discount rates, dayrates and delay in charter start date.

- A discount rate of 9.0% has been used in the valuation as at 31 December 2022 (2021: 7.6%). An increase of 1% of the discount rate would not result in an impairment (2021: $46,500,000).
- A decrease in dayrates of US$5,000 per day across the entire asset life of 25 years would not result in an impairment (2021: $nil).
- A delay in charter start date of 12 months would not result in an impairment (2021: $24,200,000).

The Group has considered that a combination of reasonable change in the assumptions above could eliminate the headroom in the recoverable amount over the carrying amounts and hence have not reversed any of the previously recognised impairment as at 31 December 2022.

2. Significant accounting policies (continued)

c) Impairment of fixed assets
As noted in Note 2.28(b)(i)(a)(ii) above, the Group formally terminated several construction contracts, of which some of these rigs have entered into bareboat charter contracts. These rigs were reclassified to fixed assets and amounted to $1,164,887,000 (before the reversal of any impairment loss) during 2022.

Based on the results of the VIU assessment, the Group made a reversal of impairment previously recognised on these fixed assets due to significant improvements in the demand for these rigs and that they are already on charter and in operation. The reversal represented the excess of the recoverable amount as at 31 December 2022 over previously impaired carrying amount, and did not exceed the recoverable amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the rigs in prior years. The recoverable amount as at 31 December 2022 was determined based on VIU calculations. A higher pre-tax discount rate of 9.0% and higher forecasted dayrates provided by independent professional firms were used as compared to when the impairment was originally made in prior years. A reversal of impairment of $292,838,000 has been recognised in the profit or loss.

The valuations of these fixed assets based on estimated VIU were most sensitive to discount rates and dayrates.

- A discount rate of 9.0% has been used in the valuation as at 31 December 2022 (2021: 7.6%). An increase of 1% of the discount rate would reduce the impairment reversed by approximately $143,598,000.
- A decrease in dayrates of US$5,000 per day across the entire asset useful life of 25 years would reduce the impairment reversed by approximately $78,774,000.

(ii) Impairment of non-financial assets
Determining whether the carrying value of a non-financial asset is impaired requires an estimation of the value in use of the cash-generating units ("CGU"s). This requires the Group to estimate the future cash flows expected from the CGUs and an appropriate discount rate in order to calculate the present value of the future cash flows. Management performed impairment tests on fixed assets (Note 7), investments in subsidiaries (Note 10), investments in associated companies and joint ventures (Note 11), and intangibles (Note 14) as at 31 December 2022.

Management has also performed an impairment assessment of the goodwill arising from acquisition of M1 Limited. Details of the impairment testing is disclosed in Note 14.

(iii) Revenue recognition and contract cost
The Group recognises contract revenue over time for rigbuilding contracts, and shipbuilding and repair contracts by reference to the estimation of the physical proportion of the contract work completed for the contracts with reference to engineers' estimates. The Group also recognises contract revenue over time for long term engineering contracts by reference to the proportion of contract costs incurred to-date to the estimated total contract costs. The stage of completion is measured in accordance with the accounting policy stated in Note 2.20. When it is probable that the total contract costs will exceed the total contract revenue, the expected loss is recognised as an expense immediately.

Significant assumptions are required in determining the stage of completion and significant judgment is required in the estimation of the physical proportion of the contract work completed for the contracts; and the estimation of total costs on the contracts, including contingencies that could arise from variations to original contract terms and claims. In making the assumption, the Group evaluates by relying on past experience, the work of engineers as well as quotations and references from other projects. These estimations are also made with due consideration of the circumstances and relevant events that were known to management at the date of these financial statements.

The above assessment had been made with the following key assumptions:

(i) estimation of the expected completion dates of each project, including expectations of any potential delays;
(ii) additional costs that will be required to complete the projects; and
(iii) impact of potential cost escalations.

As at 31 December 2022, management has assessed that for some projects, total contract costs for each project would exceed the total contract sum, resulting in the recognition of the expected loss as an expense immediately. Costs yet to be incurred for these projects as at 31 December 2022 have been included in provision for onerous contracts as detailed in Note 22 and $91,548,000 (2021: $18,831,000) relating to discontinued operations presented within liabilities directly associated with disposal group held for sale.

Revenue from construction contracts is disclosed in Note 25 and revenue from construction contracts in relation to the offshore & marine business amounting to $2,647,964,000 is disclosed within discontinued operations in Note 37.

(iv) Income taxes

The Group has exposure to income taxes in numerous jurisdictions. Significant assumptions are required in determining the provision for income taxes. There are certain transactions and computations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises liabilities for expected tax issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recognised, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made. The carrying amounts of taxation and deferred taxation are disclosed in the balance sheet.

(v) Claims, litigations and reviews

The Group entered into various contracts with third parties in its ordinary course of business and is exposed to the risk of claims, litigations, latent defects or review from the contractual parties and/or government agencies. These can arise for various reasons, including change in scope of work, delay and disputes, defective specifications or routine checks etc. The scope, enforceability and validity of any claim, litigation or review may be highly uncertain. In making its judgment as to whether it is probable that any such claim, litigation or review will result in a liability and whether any such liability can be measured reliably, management relies on past experience and the opinion of legal and technical expertise. See Note 33 for further disclosures relating to the Group's claims and litigations.

(vi) Useful lives of network and related application systems

The cost of network and related application systems is depreciated on a straight-line basis over the assets' estimated economic useful lives. Management estimated the useful lives of these fixed assets to be within 5 to 25 years. These are common life expectancies applied in the telecommunications industry. Changes in the expected level of usage and technological developments could impact the economic useful life and the residual values of these assets, therefore, future depreciation charges could be revised. The carrying amounts of the Group's network and related application systems at the end of the reporting period are disclosed in Note 7 to the financial statements.

(vii) Revaluation of investment properties

The Group carries its investment properties at fair value with changes in fair value being recognised in the profit or loss account, determined annually by independent professional valuers on the highest and best use basis except for significant investment properties which are revalued on a half-yearly basis.

For the purpose of the financial statements for the year ended 31 December 2022, valuations were obtained from the valuers for the Group's investment properties, and the resultant fair value changes were recognised in the profit or loss account.

In determining the fair values, the valuers have used valuation techniques which involve certain estimates. The key assumptions to determine the fair value of investment properties include market-corroborated capitalisation rate, price of comparable plots and properties, estimated construction costs to complete, net initial yield and discount rate. The valuation reports obtained from independent valuers for certain properties have highlighted the uncertainty of the COVID-19 outbreak and material valuation uncertainty where a higher degree of caution should be attached to the valuation than would normally be the case. Accordingly, the valuation of these investment properties may be subjected to more fluctuation than during normal market conditions.

In relying on the valuation reports, management has exercised its judgment to ensure that the valuation methods and estimates are reflective of current market conditions. The carrying amount of investment properties and the key assumptions used to determine the fair value of the investment properties are disclosed in Notes 8 and 35.

(viii) Estimating net realisable value of stocks

The net realisable value of stocks represent the estimated selling price for these stocks less all estimated cost of completion and costs necessary to make the sale.

For properties held for sale, the allowance for foreseeable losses is estimated taking into account the net realisable values and estimated total construction costs. The net realisable values are based on recent selling prices for the development project or comparable projects or independent valuation and the prevailing market conditions less costs to be incurred in selling the property. The estimates and assumptions used are subject to risk and uncertainty in view of the economic uncertainty brought about by the COVID-19 pandemic. The estimated total construction costs include contracted amounts plus estimated costs to be incurred taking into consideration relevant data and trend. The allowance is progressively reversed for those residential units sold above their carrying amounts.

2. Significant accounting policies (continued)

(ix) Fair value measurement of unquoted investment funds
In determining the fair value of unquoted investment funds, the Group relies on the net asset values as reported in the latest available capital account statements provided by third-party fund managers.

The fund managers measure the fair value of underlying investments of the funds based on:

(i) Last quoted bid price for all quoted investments; and
(ii) Valuation techniques for unquoted investments where there is no active market.

Valuation techniques used by the third-party fund managers include using recent arm's length transactions between knowledgeable, willing parties (if available), reference to the current fair value of other instruments that are substantially the same, comparable company approach, discounted cash flow analyses, option pricing models, and latest round of fund raising.

The availability of observable inputs can vary from investment to investment. For certain investments classified under Level 3 of the fair value hierarchy, the valuation could be based on models or inputs that are less observable or unobservable in the market and the determination of the fair values require significant judgement. Those estimated values do not necessarily represent the amounts that may be ultimately realised due to the occurrence of future events which could not be reasonably determined as at the balance sheet date.

These unobservable inputs that require significant judgement have been disclosed in Note 35.

3. Share capital

	Group and Company			
	Number of Ordinary Shares ("Shares")			
	Issued Share Capital		Treasury Shares	
	2022	2021	**2022**	2021
Balance at 1 January	**1,820,557,767**	1,820,557,767	**(943,259)**	(3,051,474)
Treasury shares transferred pursuant to share plans	**-**	-	**8,209,410**	4,668,215
Treasury shares purchased	**-**	-	**(75,864,000)**	(2,560,000)
Balance at 31 December	**1,820,557,767**	1,820,557,767	**(68,597,849)**	(943,259)

	Amount ($'000)			
	Issued Share Capital		Treasury Shares	
	2022	2021	**2022**	2021
Balance at 1 January	**1,305,668**	1,305,668	**(4,624)**	(13,690)
Treasury shares transferred pursuant to share plans	**-**	-	**48,602**	22,114
Treasury shares purchased	**-**	-	**(499,993)**	(13,048)
Balance at 31 December	**1,305,668**	1,305,668	**(456,015)**	(4,624)

Fully paid ordinary shares, which have no par value, carry one vote per share and carry a right to dividends declared by the Company.

During the financial year, the Company transferred 8,209,410 (2021: 4,668,215) treasury shares to employees under vesting of Shares released under the KCL Share Plans. The Company also purchased 75,864,000 (2021: 2,560,000) treasury shares in the Company in the open market during the financial year. The total amount paid was $499,993,000 (2021: $13,048,000). Except for the transfer, there was no other sale, disposal, cancellation and/or use of treasury shares during the financial year.

KCL Share Plans

The KCL Performance Share Plan ("KCL PSP") and KCL Restricted Share Plan ("KCL RSP") were approved by the Company's shareholders at the Extraordinary General Meeting of the Company on 23 April 2010. The KCL Performance Share Plan 2020 ("KCL PSP 2020") and KCL Restricted Share Plan 2020 ("KCL RSP 2020") were approved by the Company's shareholders at the Annual General Meeting held on 2 June 2020, replacing the KCL PSP and KCL RSP respectively with effect from 2 June 2020. The KCL PSP and KCL RSP were terminated on the same day.

The share plans are administered by the Remuneration Committee whose members are:

Till Bernhard Vestring (Chairman)
Danny Teoh
Jean-François Manzoni
Penny Goh (appointed on 1 June 2022)

Executive Directors who are eligible for the KCL Share Plans are required to hold a minimum number of Shares under the share ownership guideline which requires them to maintain a beneficial ownership stake in the Company, thus further aligning their interests with shareholders.

During the financial year, 1,566,518 (2021: 2,955,417) Shares under the KCL Restricted Share Plan – Deferred Shares ("KCL RSP-Deferred Shares"), 3,802,557 (2021: 1,712,798) Shares under the KCL Restricted Share Plan 2020 – Deferred Shares ("KCL RSP 2020-Deferred Shares"), 495,600 (2021: nil) Shares under the KCL Performance Share Plan ("KCL PSP") and 2,344,735 (2021: nil) Shares under the KCL PSP – Transformation Incentive Plan ("KCL PSP-TIP") were vested.

Details of the KCL RSP-Deferred Shares, KCL RSP 2020-Deferred Shares, KCL PSP, KCL PSP 2020, KCL PSP-TIP, KCL PSP – M1 Transformation Incentive Plan ("KCL PSP-M1 TIP") and the KCL PSP 2020 – Transformation Incentive Plan ("KCL PSP 2020-TIP") are as follows:

	KCL RSP-Deferred Shares & KCL RSP 2020-Deferred Shares	**KCL PSP & KCL PSP 2020**	**KCL PSP-TIP**
Plan Description	Award of fully-paid ordinary shares of the Company	Award of fully-paid ordinary shares of the Company, conditional on achievement of pre-determined targets over a three-year performance period	Award of fully-paid ordinary shares of the Company, conditional on achievement of pre-determined targets over a six-year performance period
Performance Conditions	-	PSP awards from Year 2019 to 2021 (a) Absolute Total Shareholder's Return (b) Return on Capital Employed (c) Net Profit PSP awards from Year 2022 onwards (a) Reduction in Carbon Emission (b) Net Profit (c) Return on Equity (d) Absolute Total Shareholder's Return	(a) Absolute Total Shareholder's Return (b) Corporate Scorecard Achievement comprising pre-determined stretched financial and non-financial targets for the Group (c) Individual Performance Achievement
Final Award	100% of the awards granted	0% to 150% of the contingent award granted, depending on achievement of pre-determined targets	0% to 150% of the contingent award granted, depending on achievement of pre-determined targets
Vesting Condition and Schedule	Awards will vest equally over three years subject to fulfilment of service requirements	If pre-determined targets are achieved, awards will vest at the end of the three-year performance period subject to fulfilment of service requirements	If pre-determined targets are achieved, awards will vest at the end of the six-year performance period subject to fulfilment of service requirements. Performance conditions may be subject to re-testing at the end of the six-year performance period

		KCL PSP-M1 TIP	**KCL PSP 2020-TIP**
Plan Description		Two separate awards of fully-paid ordinary shares of the Company, conditional on achievement of pre-determined targets over a three-year and six-year performance period respectively	Award of fully-paid ordinary shares of the Company, conditional on achievement of pre-determined targets over a five-year performance period
Performance Conditions		(a) Net Profit (b) Corporate Scorecard Achievement comprising pre-determined stretched financial and non-financial targets for the Group (c) Net Promoter Score (d) Individual Performance Achievement	(a) Absolute Total Shareholder's Return (b) Corporate Scorecard Achievement comprising pre-determined stretched financial and non-financial targets for the Group (c) Individual Performance Achievement (d) Asset Monetisation and Cross-BU Revenue targets
Final Award		0% to 150% of the contingent award granted, depending on achievement of pre-determined targets	0% to 150% of the contingent award granted, depending on achievement of pre-determined targets
Vesting Condition and Schedule		If pre-determined targets are achieved, the two separate awards will vest at the end of the three-year and six-year performance period subject to fulfilment of service requirements	If pre-determined targets are achieved, awards will vest at the end of the five-year performance period subject to fulfilment of service requirements. Performance conditions may be subject to re-testing at the end of the five-year performance period

3. Share capital (continued)

Movements in the number of shares under the KCL RSP-Deferred Shares, KCL RSP 2020-Deferred Shares, KCL PSP, KCL PSP-TIP, KCL PSP-M1 TIP, KCL PSP 2020 and the KCL PSP 2020-TIP are as follows:

	2022					
	KCL RSP 2020-Deferred Shares	KCL PSP	KCL PSP-TIP	KCL PSP-M1 TIP	KCL PSP 2020	KCL PSP 2020-TIP
Contingent awards/ Awards (KCL RSP 2020-Deferred Shares)						
Balance at 1 January	-	4,171,880	6,166,706	423,500	1,490,000	11,140,000
Granted	6,317,893	-	-	-	1,775,000	840,000
Adjustments upon released	(8,862)	(684,400)	(3,796,628)	-	-	-
Released	(6,309,031)	(495,600)	(2,344,735)	-	-	-
Cancelled	-	(150,000)	(25,343)	(43,600)	(150,000)	(760,000)
Balance at 31 December	-	2,841,880	-	379,900	3,115,000	11,220,000

	2021					
	KCL RSP 2020-Deferred Shares	KCL PSP	KCL PSP-TIP	KCL PSP-M1 TIP	KCL PSP 2020	KCL PSP 2020-TIP
Contingent awards/ Awards (KCL RSP-Deferred Shares & KCL RSP 2020-Deferred Shares)						
Balance at 1 January	-	4,300,000	6,522,171	423,500	-	-
Granted	5,096,700	-	-	-	1,490,000	11,380,000
Adjustments upon released	(7,625)	-	-	-	-	-
Released	(5,089,075)	-	-	-	-	-
Cancelled	-	(128,120)	(355,465)	-	-	(240,000)
Balance at 31 December	-	4,171,880	6,166,706	423,500	1,490,000	11,140,000

At the end of the financial year, the number of contingent award of Shares granted but not released was:

- 2,841,880 (2021: 4,171,880) under the KCL PSP;
- nil (2021: 6,166,706) under the KCL PSP-TIP;
- 379,900 (2021: 423,500) under the KCL PSP-M1 TIP, out of which 115,100 (2021: 127,900) is to be vested in three years and 264,800 (2021: 295,600) is to be vested in six years;
- 3,115,000 (2021: 1,490,000) under the KCL PSP 2020; and
- 11,220,000 (2021: 11,140,000) under the KCL PSP 2020-TIP.

Depending on the achievement of pre-determined performance targets, the actual number of Shares to be released could range from zero to a maximum of 4,262,820 under the KCL PSP, zero to a maximum of 569,850 under the KCL PSP-M1 TIP, zero to a maximum of 4,672,500 under the KCL PSP 2020, and zero to a maximum of 16,830,000 under the KCL PSP 2020-TIP.

	2022		2021	
	KCL RSP-Deferred Shares	KCL RSP-2020 Deferred Shares	KCL RSP-Deferred Shares	KCL RSP-2020 Deferred Shares
Awards released but not vested:				
Balance at 1 January	1,576,649	3,231,494	4,669,070	-
Released	-	6,309,031	-	5,089,075
Vested	(1,566,518)	(3,802,557)	(2,955,417)	(1,712,798)
Cancelled	(10,131)	(483,620)	(133,989)	(144,783)
Other adjustments	-	-	(3,015)	-
Balance at 31 December	-	5,254,348	1,576,649	3,231,494

As at 31 December 2022, there were no awards released but not vested (2021: 1,576,649) under the KCL RSP-Deferred Shares and 5,254,348 (2021: 3,231,494) under the KCL RSP 2020-Deferred Shares.

The fair values of the contingent award of Shares under the KCL RSP-Deferred Shares, KCL RSP 2020-Deferred Shares, KCL PSP, KCL PSP-TIP, KCL PSP-M1 TIP, KCL PSP 2020 and the KCL PSP 2020-TIP are determined at the grant date using Monte Carlo simulation method which involves projection of future outcomes using statistical distributions of key random variables including share price and volatility.

On 15 February 2022, the Company granted awards of 6,317,893 Shares under the KCL RSP 2020-Deferred Shares and the estimated fair value of the Shares granted were $5.84. On 29 April 2022, the Company granted contingent awards of 1,775,000 Shares under the KCL PSP 2020 and the estimated fair value of the Shares granted was $6.07. On 29 April 2022, the Company granted contingent awards of 840,000 Shares under the KCL PSP 2020-TIP and the estimated fair value of the Shares granted was $3.53.

In the prior year, on 15 February 2021, the Company granted awards of 5,096,700 Shares under the KCL RSP 2020-Deferred Shares and the estimated fair value of the Shares granted were $4.98. On 30 April 2021, the Company granted contingent awards of 1,490,000 Shares under the KCL PSP 2020 and the estimated fair value of the Shares granted was $4.18. On 30 July 2021, the Company granted contingent awards of 11,380,000 Shares under the KCL PSP 2020-TIP and the estimated fair value of the Shares granted was $1.95.

The significant inputs into the model are as follows:

	2022		
	KCL RSP 2020-Deferred Shares	**KCL PSP 2020**	**KCL PSP 2020-TIP**
Date of grant	**15.02.2022**	**29.04.2022**	**29.04.2022**
Prevailing share price at date of grant	**$6.05**	**$6.87**	**$6.87**
Expected volatility of the Company	**26.92%**	**26.05%**	**26.05%**
Expected term	**0.00 - 2.00 years**	**2.83 years**	**3.83 years**
Risk free rate	**0.90% - 1.26 %**	**2.17%**	**2.27%**
Expected dividend yield	*	*	*

	2021		
	KCL RSP 2020-Deferred Shares	**KCL PSP 2020**	**KCL PSP 2020-TIP**
Date of grant	15.02.2021	30.04.2021	30.07.2021
Prevailing share price at date of grant	$5.15	$5.42	$5.49
Expected volatility of the Company	27.39%	27.18%	26.77%
Expected term	0.00 - 2.00 years	2.83 years	4.58 years
Risk free rate	0.30% - 0.34%	0.56%	0.77%
Expected dividend yield	*	*	*

* Expected dividend yield is based on management's forecast.

The expected volatilities are based on the historical volatilities of the Company's share price over the previous 36 months immediately preceding the grant date. The expected term used in the model is based on the grant date and the end of the performance period.

4. Reserves

	Group		Company	
	2022 $'000	2021 $'000	**2022 $'000**	2021 $'000
Capital reserves				
Share option and share plans reserve	**205,342**	198,151	**205,342**	198,151
Fair value reserve	**(60,911)**	(49,653)	**19,430**	24,100
Hedging reserve	**239,457**	(180,398)	**-**	(452)
Bonus issue by subsidiaries	**40,000**	40,000	**-**	-
Others	**121,021**	121,519	**(7,736)**	2,960
	544,909	129,619	**217,036**	224,759
Revenue reserves	**10,632,860**	10,365,733	**9,361,110**	8,271,057
Foreign exchange translation account	**(849,163)**	(141,256)	**-**	-
	10,328,606	10,354,096	**9,578,146**	8,495,816

Exchange differences arises from the translation of financial statements of foreign operations whose functional currencies are different from that of the Group's presentation currency as well as from the translation of foreign currency loans that form part of the Group's net investment in foreign operations. The translation losses for 2022 arose largely from weakening of Renminbi against Singapore Dollar (2021: translation gains arose largely from strengthening of Renminbi against Singapore Dollar).

4. Reserves (continued)

Movements in the Group's and the Company's reserves are set out in the Consolidated Statements of Changes in Equity. Movements in hedging reserve by risk categories are as follows:

Group	Foreign exchange risk $'000	Interest rate risk $'000	Price risk $'000	Total $'000
2022				
As at 1 January	**2,396**	**(33,943)**	**(148,851)**	**(180,398)**
Fair value changes arising during the year, net of tax	**(16,329)**	**224,247**	**(52,147)**	**155,771**
Realised and transferred to profit or loss account				
- Materials, subcontract and other costs	**(1,895)**	**-**	**117,432**	**115,537**
- Other operating income – net	**80,464**	**-**	**-**	**80,464**
- Interest expenses	**-**	**(3,253)**	**-**	**(3,253)**
- Other gains and losses	**-**	**2,830**	**-**	**2,830**
Share of associated companies and joint ventures' fair value changes	**1,882**	**66,624**	**-**	**68,506**
As at 31 December	**66,518**	**256,505**	**(83,566)**	**239,457**
2021				
As at 1 January	(48,621)	(205,610)	35,687	(218,544)
Fair value changes arising during the year, net of tax	(24,319)	85,466	(131,825)	(70,678)
Realised and transferred to profit or loss account				
- Materials, subcontract and other costs	16,021	-	(52,713)	(36,692)
- Other operating income – net	57,601	-	-	57,601
- Interest expenses	-	31,155	-	31,155
- Other gains and losses	(86)	22,595	-	22,509
Share of associated companies and joint ventures' fair value changes	1,800	32,451	-	34,251
As at 31 December	2,396	(33,943)	(148,851)	(180,398)

The changes in fair value of the hedging instruments approximate the changes in fair value of the hedged items, which resulted in minimal hedge ineffectiveness recognised in profit or loss except for additional information disclosed elsewhere in the financial statements.

5. Non-controlling interests

The Group's subsidiaries that have material non-controlling interests ("NCI") are as follows:

	NCI percentage of ownership interest and voting interest		Carrying amount of NCI		Profit after tax allocated to NCI	
	2022	2021	**2022 $'000**	2021 $'000	**2022 $'000**	2021 $'000
Konnectivity Pte. Ltd.	**20%**	20%	**280,725**	304,313	**10,041**	6,999
Other subsidiaries with immaterial NCI			**52,835**	80,387	**(15,453)**	(23,039)
Total			**333,560**	384,700	**(5,412)**	(16,040)

Summarised financial information before inter-group elimination

	Konnectivity Pte. Ltd.	
	2022 $'000	2021 $'000
Non-current assets	**1,935,283**	1,865,149
Current assets	**459,086**	641,450
Non-current liabilities	**143,409**	135,917
Current liabilities	**489,427**	485,153
Net assets	**1,761,533**	1,885,529
Less: NCI	**(357,907)**	(363,965)
	1,403,626	1,521,564
Revenue	**1,182,413**	1,096,177
Profit for the year	**65,313**	40,979
Total comprehensive income	**56,091**	45,841
Net cash generated from operations	**155,663**	273,921
Net cash (used in)/generated from investing activities	**(148,946)**	360,092
Net cash used in financing activities	**(178,765)**	(423,465)
Total comprehensive income allocated to NCI	**12,629**	7,396
Dividends paid to NCI	**38,640**	9,980

During the financial year, the Group acquired additional interest in certain subsidiaries of the Company from its non-controlling interests. The following summarises the effect of the change in the Group's ownership interest on the equity attributable to owners of the Company:

	2022 $'000	2021 $'000
Amounts paid on changes in ownership interest in subsidiaries	**(28,600)**	(31,307)
Amounts paid on acquisition of additional interest made in prior year	**3,996**	-
Non-controlling interest acquired	**13,138**	19,385
Total amount recognised in equity reserves	**(11,466)**	(11,922)

6. Perpetual Securities

On 16 September 2021, the Company issued subordinated perpetual securities with an aggregate principal amount of $400,000,000 and an initial distribution rate of 2.9% per annum. The distribution will be payable semi-annually in arrear unless deferred at the discretion of the Company and will be cumulative in accordance with the terms and conditions of the perpetual securities. The perpetual securities have no fixed redemption date and are redeemable in whole at the Company's option on 16 September 2024 or any subsequent semi-annual distribution payment dates thereafter, at their principal amount, together with any accrued, unpaid or deferred distributions.

Subject to the relevant terms and conditions of the perpetual securities, the Company can elect to defer distributions on these perpetual securities and is not subject to any limits as to the number of times a distribution can be deferred, unless it has:

(i) paid or declared discretionary dividends, distributions or other discretionary payment in respect of its ordinary shares; or
(ii) redeemed, cancelled, bought back or otherwise acquired ordinary shares (except in connection with any share scheme shares/options), during the six months ending on the day before the relevant distribution payment date.

If on any distribution payment date, payment of all distribution payments is not made in full, the Company shall not (i) pay or declare any dividends, distributions or other discretionary payment on its ordinary shares or (ii) redeem, reduce, cancel, buy-back or acquire ordinary shares (except in connection with any share scheme shares/options) until the Company has satisfied in full all outstanding arrears of distribution on these perpetual securities or is permitted to do so by an extraordinary resolution by the holders of the perpetual securities.

As the perpetual securities have no fixed redemption date and the payment of distributions is at the discretion of the Company, the perpetual securities do not meet the definition for classification as a financial liability under SFRS(I) 1-32 *Financial Instruments: Presentation*. The whole instrument is presented within equity, and distributions are treated as dividends.

As at 31 December 2022, the perpetual securities of $401,521,000 (2021: $401,521,000) recognised within equity represent the $398,120,000 (2021: $398,120,000) perpetual securities issued net of transaction costs, and include the accrued distributions for the perpetual securities.

7. Fixed assets

	Freehold Land & Buildings $'000	Buildings on Leasehold Land $'000	Vessels & Floating Docks $'000	Networks & Related Application Systems $'000	Plant, Machinery, Equipment & Others[1] $'000	Capital Work-in-Progress $'000	Total $'000
Group							
2022							
Cost							
At 1 January	83,916	1,883,539	455,186	80,825	2,231,360	160,344	4,895,170
Additions	321	1,237	6	73,200	104,601	100,048	279,413
Disposals	(267)	(159)	(13)	-	(43,443)	(5,396)	(49,278)
Write-off	-	-	-	-	(890)	(52)	(942)
Subsidiaries acquired	3,409	-	-	-	420	-	3,829
Subsidiaries disposed	-	(249,852)	-	-	(43,053)	(791)	(293,696)
Reclassification							
- ROU asset	-	(303)	-	-	-	-	(303)
- Contract assets	-	-	-	-	-	753,612	753,612
- Other fixed assets categories	38	5,450	(877)	-	24,184	(28,795)	-
- Disposal group and assets classified as held for sale (Note 37)	(40,124)	(1,078,608)	(448,773)	-	(1,232,094)	(810,811)	(3,610,410)
Exchange differences	(2,057)	(21,832)	(5,529)	-	(9,391)	1,585	(37,224)
At 31 December	45,236	539,472	-	154,025	1,031,694	169,744	1,940,171
Accumulated depreciation and impairment losses							
At 1 January	57,039	956,228	171,115	37,083	1,586,668	42,663	2,850,796
Depreciation charge							
- from continuing operations	919	17,516	-	13,208	84,560	-	116,203
- from discontinued operations	446	7,496	4,992	-	12,560	-	25,494
Disposals	(256)	(155)	(13)	-	(39,884)	-	(40,308)
Subsidiaries disposed	-	(157,231)	-	-	(37,844)	-	(195,075)
Reclassification							
- ROU asset	-	(155)	-	-	-	-	(155)
- Other fixed assets categories	-	(96)	-	-	96	-	-
- Disposal group and assets classified as held for sale (Note 37)	(24,308)	(568,868)	(172,040)	-	(985,456)	(19,555)	(1,770,227)
Exchange differences	(1,657)	(7,951)	(4,054)	-	(7,463)	(2,229)	(23,354)
At 31 December	32,183	246,784	-	50,291	613,237	20,879	963,374
Net Book Value	13,053	292,688	-	103,734	418,457	148,865	976,797

Included in freehold land & buildings are freehold land amounting to $2,655,000 (2021: $6,264,000). Certain fixed assets with carrying amount of $88,000 (2021: $116,755,000) are mortgaged to banks for loan facilities (Note 23).

Interest capitalised during the financial year amounted to $nil (2021: $nil).

	Freehold Land & Buildings $'000	Buildings on Leasehold Land $'000	Vessels & Floating Docks $'000	Networks & Related Application Systems $'000	Plant, Machinery, Equipment & Others[(1)] $'000	Capital Work-in-Progress $'000	Total $'000
Group							
2021							
Cost							
At 1 January	118,113	1,913,994	526,939	724,319	2,208,740	179,257	5,671,362
Additions	1,621	6,262	144	106,519	90,816	103,423	308,785
Disposals	(1,581)	(2,787)	(2,774)	(749,377)	(21,258)	(32,157)	(809,934)
Write-off	-	(11,775)	-	-	(2,696)	(9,978)	(24,449)
Subsidiaries disposed	-	-	-	-	(208)	-	(208)
Reclassification							
- ROU asset	-	36,406	-	-	-	-	36,406
- Stocks	-	(19,642)	-	-	-	(19,999)	(39,641)
- Other fixed assets categories	(32,292)	81,434	(20,578)	(636)	26,658	(54,586)	-
- Asset held for sale (Note 37)	(69)	(142,955)	(55,340)	-	(79,558)	(4,303)	(282,225)
Exchange differences	(1,876)	22,602	6,795	-	8,866	(1,313)	35,074
At 31 December	83,916	1,883,539	455,186	80,825	2,231,360	160,344	4,895,170
Accumulated depreciation and impairment losses							
At 1 January	70,386	968,237	176,300	155,070	1,544,970	40,646	2,955,609
Depreciation charge							
- from continuing operations	884	32,247	-	82,447	83,250	-	198,828
- from discontinued operations	1,496	17,651	22,201	-	43,163	-	84,511
Disposals	(1,356)	(2,326)	(2,066)	(200,350)	(20,730)	-	(226,828)
Impairment	-	35,969	-	-	-	866	36,835
Write-off	-	(6,002)	-	-	(1,732)	-	(7,734)
Subsidiaries disposed	-	-	-	-	(186)	-	(186)
Reclassification							
- ROU asset	-	12,124	-	-	-	-	12,124
- Stocks	-	(10,094)	-	-	-	-	(10,094)
- Other fixed assets categories	(13,506)	21,845	(12,138)	(84)	3,883	-	-
- Asset held for sale (Note 37)	(30)	(118,729)	(16,834)	-	(71,867)	-	(207,460)
Exchange differences	(835)	5,306	3,652	-	5,917	1,151	15,191
At 31 December	57,039	956,228	171,115	37,083	1,586,668	42,663	2,850,796
Net Book Value	26,877	927,311	284,071	43,742	644,692	117,681	2,044,374

(1) Others comprise furniture, fittings and office equipment and cranes.

In 2021, the Group recognised an impairment loss of $35,969,000 on buildings on leasehold land in the Urban Development segment, which was based on the difference between the recoverable amount and the carrying value of a fixed asset. The recoverable amount of $67,273,000 was based on an independent external valuation, which was determined using value-in-use model. Cashflows used to determine the recoverable amount were discounted at a discount rate of 14.5% per annum.

In 2021, the Group completed the sale of certain mobile, fixed and fibre assets (comprising passive infrastructure and network equipment) ("Network Assets") to M1 Network Private Limited ("M1NPL"), a jointly controlled entity of the Group, for a consideration of $580,000,000, an amount equivalent to the carrying amount of the Network Assets. On the same date, the Network Services Agreement ("NSA") between the Group and M1NPL became effective where M1NPL will provide the Group and its mobile virtual network operators ("MVNO") access to and use of the network capacity generated by the Network Assets for an initial period of 15 years. In addition, the Group will undertake the operations and maintenance of the Network Assets on behalf of M1NPL.

This Group had evaluated the economic and accounting implications of the agreements and concluded that:

(i) the Network Assets could be derecognised from the Group's financial statements as a sale to M1NPL in accordance with SFRS(I)1-16 *Property, Plant and Equipment* whereby M1NPL obtained control of the Network Assets as the Group's performance obligation under the agreement had been satisfied against the requirements under SFRS(I) 15 *Revenue from Contracts with Customers*; and
(ii) the NSA does not contain a lease in accordance with SFRS(I) 16 *Leases*. Accordingly, the NSA has been accounted for as a service contract.

7. Fixed assets (continued)

	Freehold Land & Buildings $'000	Plant, Machinery, Equipment & Others[2] $'000	Total $'000
Company			
2022			
Cost			
At 1 January	**1,233**	**23,661**	**24,894**
Additions	**-**	**146**	**146**
Disposals	**-**	**(663)**	**(663)**
At 31 December	**1,233**	**23,144**	**24,377**
Accumulated depreciation and impairment losses			
At 1 January	**1,233**	**15,199**	**16,432**
Depreciation charge	**-**	**2,582**	**2,582**
Disposals	**-**	**(278)**	**(278)**
At 31 December	**1,233**	**17,503**	**18,736**
Net Book Value	**-**	**5,641**	**5,641**
2021			
Cost			
At 1 January	1,233	18,039	19,272
Additions	-	6,520	6,520
Disposals	-	(898)	(898)
At 31 December	1,233	23,661	24,894
Accumulated depreciation and impairment losses			
At 1 January	1,233	12,275	13,508
Depreciation charge	-	2,956	2,956
Disposals	-	(32)	(32)
At 31 December	1,233	15,199	16,432
Net Book Value	-	8,462	8,462

[2] Others comprise furniture, fittings and office equipment.

8. Investment properties

	Group	
	2022 $'000	2021 $'000
At 1 January	**4,256,428**	3,674,075
Development expenditure	**216,799**	229,581
Fair value gain (Note 27)	**131,711**	238,458
Disposal	**(41,204)**	-
Reclassification		
- Stocks (Note 15)	**-**	3,544
Exchange differences	**(280,641)**	110,770
At 31 December	**4,283,093**	4,256,428

The Group revalues its investment property portfolio on an annual basis except for significant investment properties which are revalued on a half-yearly basis. The fair value of investment properties is determined by external, independent professional valuers which have appropriate recognised professional qualifications and experience in the location and category of property being valued. Management reviews the appropriateness of the valuation methodologies and assumptions adopted, and the reliability of the inputs used in the valuations.

The Group's investment properties (including integral plant and machinery) are stated at management's assessments based on the following valuations (open market value basis) by independent professional valuers as at 31 December 2022:

- Cushman & Wakefield VHS Pte Ltd and Knight Frank Pte Ltd for properties in Singapore;
- Cushman & Wakefield Shenzhen Valuation Company Limited and Colliers Appraisal & Advisory Services Co., Ltd for properties in China;
- KJPP Willson dan Rekan (an affiliate of Knight Frank) for properties in Indonesia;
- D&P Real Estate Services Company Limited (an affiliate of Colliers) and VAS Valuation Co., Ltd (in association with CBRE (Vietnam) Co., Ltd) for properties in Vietnam;
- Cushman & Wakefield India Pvt Ltd for a property in India; and
- Cushman & Wakefield V.O.F. for a property in the Netherlands.

Based on valuations performed by the independent professional valuers, management has analysed the appropriateness of the fair value changes.

Interest capitalised within development expenditure during the financial year amounted to $41,249,000 (2021: $42,027,000).

The Group has mortgaged certain investment properties of carrying value amounting to $1,913,364,000 as at 31 December 2022 (2021: $1,875,368,000) to banks for loan facilities (Note 23).

During the year, the Group reclassified $nil (2021: $3,544,000) from properties held for sale to investment properties upon change of use of the asset from property trading to holding for capital gain and/or rental yield.

9. Right-of-use assets (leases)

Leases

The Group as lessee

Leasehold land & buildings
The Group leases several lands, offices, retail stores and shipyards for use in its operations.

Plant, machinery, equipment & others
The Group leases equipment and vehicles for office and operation use, mainly in the Energy & Environment segment.

Base station sites
The Group leases base station sites to facilitate transmission of telecommunication services.

There are no externally imposed covenants on these lease arrangements.

Right-of-use assets

	Leasehold Land & Buildings $'000	Plant, Machinery, Equipment & Others[(1)] $'000	Base Station Sites $'000	Total $'000
Group				
2022				
Net Book Value				
At 1 January	501,956	5,230	22,030	529,216
Additions	24,045	952	6,885	31,882
Subsidiaries acquired	226	-	-	226
Depreciation				
- from continuing operations	(35,806)	(2,057)	(4,234)	(42,097)
- from discontinued operations	(9,594)	(95)	-	(9,689)
Subsidiaries disposed	(32,753)	(727)	-	(33,480)
Write-off	(524)	-	-	(524)
Remeasurement	17,375	-	-	17,375
Reclassification				
- Fixed assets (Note 7)	148	-	-	148
- Disposal group and assets classified as held for sale (Note 37)	(253,063)	(57)	-	(253,120)
- Other right-of-use assets categories	408	6	(414)	-
Exchange differences	1,210	(95)	-	1,115
At 31 December	213,628	3,157	24,267	241,052

9. Right-of-use assets (leases) (continued)

	Leasehold Land & Buildings $'000	Plant, Machinery, Equipment & Others[1] $'000	Base Station Sites $'000	Total $'000
Group				
2021				
Net Book Value				
At 1 January	553,983	5,048	23,675	582,706
Additions	70,558	2,910	2,353	75,821
Depreciation				
- from continuing operations	(33,880)	(2,291)	(3,584)	(39,755)
- from discontinued operations	(30,048)	(375)	-	(30,423)
Write-off	(271)	-	-	(271)
Remeasurement	(5,452)	(43)	-	(5,495)
Reclassification				
- Fixed assets (Note 7)	(24,282)	-	-	(24,282)
- Assets held for sale (Note 37)	(32,192)	-	-	(32,192)
- Other right-of-use assets categories	(27)	27	-	-
Exchange differences	3,567	(46)	(414)	3,107
At 31 December	501,956	5,230	22,030	529,216

(1) Others comprise furniture, fittings, office equipment and motor vehicles.

The right-of-use asset relating to the leasehold land presented under investment properties (Note 8) is stated at fair value and has a carrying amount at balance sheet date of $58,000 (2021: $4,742,000).

Total cash outflow for all the leases was $106,546,000 (2021: $99,894,000), comprising repayment of principal of $82,641,000 (2021: $68,573,000) and interest payment of $23,905,000 (2021: $31,321,000).

Certain right-of-use assets with carrying amount of $nil (2021: $10,520,000) are mortgaged to banks for loan facilities (Note 23).

	Leasehold Land & Buildings $'000	Plant, Machinery, Equipment & Others[2] $'000	Total $'000
Company			
2022			
Net Book Value			
At 1 January	**15,102**	**129**	**15,231**
Depreciation	**(3,669)**	**(72)**	**(3,741)**
Additions	**147**	**22**	**169**
At 31 December	**11,580**	**79**	**11,659**
2021			
Net Book Value			
At 1 January	11,031	173	11,204
Depreciation	(3,727)	(72)	(3,799)
Additions	338	28	366
Remeasurement	7,460	-	7,460
At 31 December	15,102	129	15,231

(2) Others comprise office equipment.

Total cash outflow for all the leases was $4,225,000 (2021: $4,211,000), comprising repayment of principal of $3,875,000 (2021: $3,885,000) and $350,000 interest payment (2021: $326,000).

	Group	
	2022 $'000	2021 $'000
Lease expense not capitalised in lease liabilities		
Short-term leases	**3,315**	10,247
Low-value leases	**212**	588
Variable lease payments which do not depend on an index or rate	**404**	666

As at 31 December 2022, future cash outflows to which the Group is potentially exposed that are not reflected in the measurement of lease liabilities include variable lease payments, $24,890,000 (2021: $609,797,000) for extension options and $55,243,000 (2021: $57,086,000) for committed leases which have yet to commence.

The following table details the liquidity analysis for lease liabilities of the Group and the Company based on contractual undiscounted cash flows.

	Group		Company	
	2022 $'000	2021 $'000	**2022 $'000**	2021 $'000
Within one year	**38,111**	99,392	**4,205**	4,181
Within one to two years	**33,085**	89,607	**4,031**	4,137
Within two to five years	**55,781**	205,571	**4,945**	8,941
After five years	**154,365**	366,435	**-**	-
Total	**281,342**	761,005	**13,181**	17,259

The Group as lessor

The Group leases out properties, pipe service corridor racks and wayleaves facilities to non-related parties under non-cancellable operating leases. At the end of the reporting period, the Group's undiscounted future minimum lease receivables under non-cancellable operating leases contracted for at the end of the reporting period but not recognised as receivables are as follows:

	Group	
	2022 $'000	2021 $'000
Within one year	**70,734**	75,685
In the second year	**62,569**	68,125
In the third year	**42,880**	54,012
In the fourth year	**24,002**	30,662
In the fifth year	**15,852**	20,885
After the fifth year	**47,388**	62,347
Total	**263,425**	311,716

The Group entered into leasing arrangement with customers for certain equipment as a manufacturer lessor and built-to-suit data centre for a customer. The lease is classified as finance lease as the customers have an option to purchase the underlying asset at a price that is expected to be sufficiently lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception date, that the option will be exercised.

The asset relating to the finance lease is derecognised and the net investment in the lease is recognised under lease receivables (Note 13).

The Group has 6 jack-up oil rigs within the disposal group held for sale which has entered into bareboat charter contracts for a period of three to five years with total undiscounted lease receivable of $268,460,000 (Note 37).

The following table shows the maturity analysis of the undiscounted lease payments to be received:

	Group	
	2022 $'000	2021 $'000
Within one year	**11,418**	375
In the second year	**11,602**	375
In the third year	**11,697**	375
In the fourth year	**76,797**	374
In the fifth year	**1,937**	374
After the fifth year	**15,106**	3,352
Total	**128,557**	5,225

10. Subsidiaries

	Company	
	2022 $'000	2021 $'000
Quoted shares, at cost		
Market value: $6,111,000 (2021: $5,750,000)	**493**	493
Unquoted shares, at cost	**7,633,512**	8,442,349
	7,634,005	8,442,842
Provision for impairment	**(445,612)**	(449,056)
	7,188,393	7,993,786

Movements in the provision for impairment of subsidiaries are as follows:

	Company	
	2022 $'000	2021 $'000
At 1 January	**449,056**	480,569
Charge to profit or loss	**-**	18,487
Disposal	**(3,000)**	-
Write-back	**(444)**	(50,000)
At 31 December	**445,612**	449,056

In 2018, Keppel FELS Limited and Keppel Shipyard Limited, both indirect wholly owned subsidiaries of the Company, issued fixed rate senior perpetual securities (the "perpetual securities") with an aggregate principal amount of $2,000,000,000 to Kepinvest Holdings Pte Ltd, a direct wholly owned subsidiary of the Company.

During the financial year ended 31 December 2022,
(a) the perpetual securities amounting to $2,364,876,000 have been novated from Kepinvest Holdings Pte Ltd to the Company and were classified as an investment in subsidiaries by the Company; and
(b) unquoted shares in Keppel Offshore & Marine Ltd ("KOM") amounting to $801,720,000 and perpetual securities relating to the KOM group as described above, amounting to a total of $3,166,596,000, have been reclassified to "Disposal group and assets classified as held for sale" on the balance sheet of the Company.

The above transactions were for the purposes of undertaking an internal restructuring of KOM (the "KOM Pre-Combination Restructuring") to effect the Proposed Combination as mentioned in Note 37.

Impairment of $18,487,000 made for the financial year ended 31 December 2021 mainly relates to an investment holding subsidiary that holds the loan receivable from KrisEnergy Limited. Based on the expected credit loss assessment as detailed in Note 13, an impairment provision on the loan receivable was recognised, resulting in the estimated recoverable amount of the subsidiary to be below the Company's cost of investment. The recoverable amount of $28,000 is based on fair value less costs of disposal which was determined using the net asset value of the subsidiaries. This is a Level 3 fair value measurement.

For the financial year ended 31 December 2021, provision of impairment amounting to $50,000,000 was written-back as a result of increase in the estimated recoverable amount of subsidiaries mainly attributable to fair value gains from investments held by subsidiaries. The recoverable amount of $194,354,000 is based on fair value less costs of disposal which was determined using the net asset value of the subsidiaries, which approximates fair value. This is a Level 3 fair value measurement.

Information relating to significant subsidiaries consolidated in the financial statements is given in Note 40.

11. Associated companies and joint ventures

	Group 2022 $'000	Group 2021 $'000
Quoted shares, at cost		
Market value: $2,302,422,000 (2021: $2,981,536,000)	2,304,848	2,277,137
Unquoted shares, at cost	3,454,664	3,006,644
	5,759,512	5,283,781
Provision for impairment	(112,004)	(144,005)
	5,647,508	5,139,776
Share of reserves post acquisition	476,094	393,681
Carrying amount	6,123,602	5,533,457
Unquoted shares, at fair value through profit or loss	246,677	142,238
Notes issued by an associated company	245,000	245,000
Advances to associated companies and joint ventures	176,583	129,563
	6,791,862	6,050,258

Notes issued by an associated company of $245,000,000 are unsecured and will mature in 2040. Interest is charged at 17.5% (2021: 17.5%) per annum.

Advances to associated companies and joint ventures are unsecured and are not repayable within the next 12 months. Interest is charged at 3.0% to 11.0% (2021: 3.0%) per annum on interest-bearing advances.

Movements in the provision for impairment of associated companies and joint ventures are as follows:

	Group 2022 $'000	Group 2021 $'000
At 1 January	144,005	152,509
Impairment loss	1,000	-
Disposal and liquidation	(26,900)	(674)
Reclassification to		
- Investments	-	(7,830)
- Disposal group and assets classified as held for sale	(6,101)	-
At 31 December	112,004	144,005

Impairment loss made during the current year mainly relates to the shortfall between the carrying amount of the costs of investment and the recoverable amount of an associated company.

The carrying amount of the Group's material associated companies and joint ventures, all of which are equity accounted for, are as follows:

		2022 $'000	2021 $'000
Keppel REIT	(a)	2,085,919	1,953,614
Keppel DC REIT	(b)	496,454	470,649
Sino-Singapore Tianjin Eco-City Investment and Development Co., Limited	(c)	618,968	673,007
Floatel International Limited	(d)	254,503	262,146
Other associated companies and joint ventures		3,336,018	2,690,842
		6,791,862	6,050,258

11. Associated companies and joint ventures (continued)

The summarised financial information of the material associated companies, not adjusted for the Group's proportionate share, based on its SFRS(I) financial statements and a reconciliation with the carrying amount of the investment in the consolidated financial statements are as follows:

(a) Keppel REIT

	2022 $'000	2021 $'000
Current assets	795,861	225,934
Non-current assets	8,085,514	8,261,750
Total assets	8,881,375	8,487,684
Current liabilities	714,266	273,276
Non-current liabilities	2,301,805	2,624,424
Total liabilities	3,016,071	2,897,700
Net assets	5,865,304	5,589,984
Less: Non-controlling interests	(746,388)	(723,796)
	5,118,916	4,866,188
Proportion of the Group's ownership	47%	47%
Group's share of net assets	2,390,022	2,264,724
Other adjustments	(304,103)	(311,110)
Carrying amount of equity interest	2,085,919	1,953,614
Revenue	219,286	216,606
Profit after tax	448,403	255,856
Other comprehensive income	18,690	23,459
Total comprehensive income	467,093	279,315
Fair value of ownership interest (if listed)**	1,590,158	1,943,429
Dividends received	101,123	98,865

** Based on the quoted market price at 31 December (Level 1 in the fair value hierarchy).

As at 31 December 2022 and 31 December 2021, the fair value of Keppel REIT was below the carrying amount of the Group's effective ownership interest. Management is of the view that no impairment is required as it is held for long term and its recoverable amount approximates the carrying amount.

(b) Keppel DC REIT

	2022 $'000	2021 $'000
Current assets	262,606	262,188
Non-current assets	3,845,057	3,517,962
Total assets	4,107,663	3,780,150
Current liabilities	244,640	220,609
Non-current liabilities	1,406,105	1,223,865
Total liabilities	1,650,745	1,444,474
Net assets	2,456,918	2,335,676
Less: Non-controlling interests	(42,800)	(42,429)
	2,414,118	2,293,247
Proportion of the Group's ownership	20%	20%
Group's share of net assets	485,721	458,649
Other adjustments	10,733	12,000
Carrying amount of equity interest	496,454	470,649
Revenue	277,322	271,065
Profit after tax	234,174	321,573
Other comprehensive income	29,804	11,251
Total comprehensive income	263,978	332,824
Fair value of ownership interest (if listed)**	612,172	847,490
Dividends received	22,380	35,928

** Based on the quoted market price at 31 December (Level 1 in the fair value hierarchy).

(c) Sino-Singapore Tianjin Eco-City Investment and Development Co., Limited

	2022 $'000	2021 $'000
Current assets	1,243,193	1,317,280
Non-current assets	503,634	539,024
Total assets	1,746,827	1,856,304
Current liabilities	460,153	384,913
Non-current liabilities	17,747	67,848
Total liabilities	477,900	452,761
Net assets	1,268,927	1,403,543
Proportion of the Group's ownership	50%	50%
Group's share of net assets	634,464	701,772
Other adjustments	(15,496)	(28,765)
Carrying amount of equity interest	618,968	673,007
Revenue	32,077	369,357
Profit after tax	6,482	43,447
Other comprehensive income	-	-
Total comprehensive income	6,482	43,447
Dividends received	-	21,162

(d) Floatel International Limited

	2022 $'000	2021 $'000
Current assets	108,842	88,287
Non-current assets	828,485	878,785
Total assets	937,327	967,072
Current liabilities	54,965	52,381
Non-current liabilities	372,540	389,559
Total liabilities	427,505	441,940
Net assets	509,822	525,132
Proportion of the Group's ownership	50%	50%
Group's share of net assets	254,503	262,146
Carrying amount of equity interest	254,503	262,146
Revenue	230,772	127,016
Profit/(Loss) after tax	(15,122)	322,163
Other comprehensive loss	-	(3)
Total comprehensive income/(loss)	(15,122)	322,160
Dividends received	-	-

Apart from the equity interest in Floatel, the Group has exposure for a guarantee in relation to a bilateral agreement between the Group and financial institutions, on a revolving credit facility granted to Floatel, as disclosed in Note 33.

(e) Other associated companies and joint ventures

Aggregate information about the Group's investments in other associated companies and joint ventures are as follows:

	2022 $'000	2021 $'000
Share of results – continuing operations	290,426	106,139
Share of results – discontinued operations	4,420	8,135
Share of other comprehensive income/(loss)	(150,486)	72,324
Share of total comprehensive income	144,360	186,598

Information relating to significant associated companies and joint ventures, including information on principal activities, country of operation/incorporation and proportion of ownership interest, and whose results are included in the financial statements is given in Note 40.

12. Investments

	Group		Company	
	2022 $'000	2021 $'000	**2022 $'000**	2021 $'000
Investments at fair value through other comprehensive income ("OCI"):				
- Quoted equity units in a public infrastructure trust managed by a related company	**490,886**	495,432	**-**	-
- Quoted equity shares in other industries	**3,820**	6,878	**-**	-
- Unquoted equity shares in real estate industry	**78,561**	70,871	**19,430**	24,100
- Unquoted equity shares and funds in oil and gas industry	**-**	28,120	**-**	-
- Unquoted equity shares and funds in other industries	**109,381**	27,032	**-**	-
- Unquoted property funds managed by a related company	**90,746**	100,029	**-**	-
Total investments at fair value through OCI	**773,394**	728,362	**19,430**	24,100
Investments at fair value through profit or loss:				
- Quoted equity shares	**34,618**	71,314	**-**	-
- Unquoted equity shares and funds	**622,449**	547,849	**-**	-
- Unquoted bonds and debentures	**52,258**	100,139	**-**	-
Total investments at fair value through profit or loss	**709,325**	719,302	**-**	-
Total investments	**1,482,719**	1,447,664	**19,430**	24,100

In prior year, unquoted investments at fair value through profit or loss included a bond amounting to $20,791,000 bearing interest at 4% per annum which is maturing in 2027. For the financial year ended 31 December 2022, the balance has been reclassified to disposal group and assets classified as held for sale (Note 37).

Unquoted investments at fair value through profit or loss included compulsorily convertible debentures amounting to $46,821,000 (2021: $74,034,000). During the year, the Group has converted 5,035,464 of the compulsorily convertible debentures held into equity shares at a conversion rate of 1:1 amounting to INR 1,280 million (approximately $22.7 million). The remaining compulsorily convertible debentures bear interest at 10.0% per annum which is maturing in 2040.

13. Long term assets

	Group		Company	
	2022 $'000	2021 $'000	**2022 $'000**	2021 $'000
Call option	**192,522**	171,520	**-**	-
Finance lease receivables	**93,339**	3,473	**-**	-
Trade receivables	**-**	791,952	**-**	-
Other receivables	**212,675**	235,037	**70,252**	94,161
	498,536	1,201,982	**70,252**	94,161

The call option granted to the Group is in connection with the disposal of its 87.51% equity interest in Ocean Properties LLP (formerly known as Ocean Properties Private Limited) to Keppel REIT in 2011. The Group has an option to acquire the same shares exercisable at the price of $1 upon the expiry of 99 years from 14 December 2011 under the share purchase agreement. The call option may be exercised earlier upon the occurrence of certain specified events as stipulated in the call option deed. As at 31 December 2022, the fair value was determined by reference to the difference in valuations obtained from an independent professional valuer for the underlying investment property based on the remaining 839-year leasehold and 88-year leasehold (2021: based on the remaining 840-year leasehold and 89-year leasehold). The details of the valuation techniques and inputs used for the call option are disclosed in Note 35.

Trade receivables are related to financing arrangements for delivered rigs where the Group has retained title. As noted in Note 2.28(b)(i), the trade receivables have been presented in the balance sheet as "Disposal group classified as held for sale" following the definitive agreements for the proposed combination of Keppel O&M and Sembcorp Marine and for the sale of Keppel O&M's legacy rigs and associated receivables to a new and separate entity. In 2021, $377,660,000 is due from one customer and bears floating interest at LIBOR plus a margin, and repayable in 2024 and 2025. The remainder is due from another customer, bears fixed interest and repayable in February 2024, December 2029 and on demand. The customer has options for early repayment. In the prior year, the Group recognised an expected credit loss allowance of $75,952,000 on the trade receivables as detailed in Note 2.28(b)(i)(a)(ii). As at 1 January 2021, the Group's long term trade receivables amounted to $875,810,000.

Included in other receivables is a secured loan receivable due from KrisEnergy Asia Limited ("KAL"), a company under receivership. The Company had provided a guarantee, which was in relation to a bilateral agreement between the Company and a bank, on a revolving credit facility (RCF) granted to KAL. KAL defaulted on the repayment of the RCF on 30 June 2021, on which the Company had made payment to the bank and recorded a loan receivable (net of impairment provision) from KAL. As at 31 December 2022, the loan receivable under the RCF amounted to $109,601,000 (31 December 2021: $109,513,000). In addition, the Company had extended a short term interest free bridging facility to KAL (in receivership) for the purpose of its cash flow requirements and receivership expenses which amounted to $5,197,000 as at 31 December 2022 (31 December 2021: $5,876,000). The non-current portion of the loan receivable and advances amounted to $69,657,000 (31 December 2021: $93,311,000) while the current portion amounted to $45,141,000 (31 December 2021: $22,078,000) which is included under Debtors (Note 18).

The Group had a comprehensive first ranking security package over the assets of the KrisEnergy Limited group ("KrisEnergy") through the RCF. With KrisEnergy Limited in liquidation, the Group has implemented detailed recovery plans which were developed in consultation with its financial advisor, Borrelli Walsh (now "Kroll"), and legal advisor to preserve KrisEnergy's assets and to maximise recoveries for the Group. The Group had appointed Kroll in 2021 as receiver over the assets of a number of members of the KrisEnergy group under the security package.

In assessing expected credit loss, management had reviewed the cash flow projections prepared by Kroll, based on the estimated amount of cash available from producing assets to be held over the remaining lives of the concession period of 7.5 to 11 years (2021: 8.5 to 12 years) and expected proceeds from assets to be sold, taking into account the rights to these cash flows from the secured assets on a receivership basis. The cash flow estimates from producing assets were based on forecasted production volumes and oil prices, determined by taking reference from external information sources, ranging from US$80 to US$97 per barrel for 2023 to 2032 (December 2021: US$67 to US$73 from 2022 to 2033). The estimated recoverable amounts for assets to be sold are based on the binding bids received from external parties. The timing of the cash flows, estimated production volumes, oil prices and discount rates used in assessing recoverable amounts are subject to risk and uncertainty.

Based on the assessment, no additional expected credit loss provision was required for the year ended 31 December 2022. The assessment took into account the rights to the cash flows from the secured assets on a receivership basis.

In the financial year ended 31 December 2021, management had performed an assessment on the Group's exposure to KrisEnergy and an impairment provision of $317,999,000 was recognised. Taking into account the rights to the cash flows from the secured assets on a receivership basis as at 31 December 2021, the loss comprised expected credit loss of $282,915,000 on financial guarantee in relation to the bilateral agreement with the bank, receivables for production barge and CBA loan facility, and the full impairment of the Group's investment in the zero-coupon notes (previously presented as part of investment in associated companies) of $35,084,000.

Management had reviewed the cash flow projections prepared by Kroll and determined that the cash flow projections are most sensitive to oil prices for the financial year ended 31 December 2022. The headroom in the recoverable amount over the carrying amount would be eliminated if oil prices were to decrease by 9.1% across the forecasted period of 2023 to 2032, and any further decline in oil prices would result in an additional expected credit loss provision for the financial year ended 31 December 2022.

For the financial year ended 31 December 2021, the cash flow projections were most sensitive to the timing of trapped cash. The existing cash from one of the producing assets under the security package have been withheld as the operator of this asset is seeking clarity from the regulator on the estimated decommissioning security required to cover the decommissioning costs for the asset at the end of field life in 2031. A study on the estimated decommissioning costs had been completed and submitted to the regulator in 2022. If the release of the withheld cash were delayed by an additional year, this would lead to a decrease in estimated recoverable amount of $3,000,000 but not result in additional expected credit loss provision for the financial year ended 31 December 2021.

Included in other receivables is an unsecured, interest-free advance to an investee amounted to $19,804,000 (2021: $19,788,000), which matures on 31 December 2024.

Included in other receivables is claims receivable which represents claims from customer for long term contracts. During the year, the Group recognised $9,089,000 (2021: $1,170,000) of allowance for expected credit loss on claims receivable arising from the discounting effects due to changes in the expected timing of receipt.

The carrying amount of the long term assets approximates their fair value.

14. Intangibles

	Goodwill $'000	Development Expenditure $'000	Brand $'000	Spectrum Rights $'000	Customer Contracts and Relationships $'000	Others $'000	Total $'000
Group							
2022							
At 1 January	**1,047,558**	**13,685**	**251,349**	**132,176**	**122,253**	**22,251**	**1,589,272**
Additions	**-**	**424**	**-**	**26,252**	**-**	**-**	**26,676**
Acquisition of subsidiaries	**-**	**-**	**-**	**-**	**10,767**	**32**	**10,799**
Disposal of a subsidiary	**-**	**(1,275)**	**-**	**-**	**-**	**-**	**(1,275)**
Disposals	**-**	**(52)**	**-**	**-**	**-**	**-**	**(52)**
Amortisation							
- from continuing operations	**-**	**(777)**	**(9,252)**	**(15,686)**	**(22,143)**	**(400)**	**(48,258)**
- from discontinued operations	**-**	**(216)**	**-**	**-**	**-**	**-**	**(216)**
Reclassification							
- Disposal group and assets classified as held for sale	**(5,070)**	**(6,685)**	**-**	**-**	**-**	**-**	**(11,755)**
Exchange differences	**-**	**(96)**	**-**	**-**	**(380)**	**(1)**	**(477)**
At 31 December	**1,042,488**	**5,008**	**242,097**	**142,742**	**110,497**	**21,882**	**1,564,714**
Cost	**1,042,488**	**12,723**	**277,563**	**183,787**	**210,517**	**22,577**	**1,749,655**
Accumulated amortisation	**-**	**(7,715)**	**(35,466)**	**(41,045)**	**(100,020)**	**(695)**	**(184,941)**
	1,042,488	**5,008**	**242,097**	**142,742**	**110,497**	**21,882**	**1,564,714**
2021							
At 1 January	1,047,558	16,749	260,601	124,553	141,652	17,711	1,608,824
Additions	-	910	-	27,504	-	4,673	33,087
Amortisation							
- from continuing operations	-	(1,017)	(9,252)	(19,881)	(21,957)	(133)	(52,240)
- from discontinued operations	-	(645)	-	-	-	-	(645)
Reclassification	-	(2,558)	-	-	2,558	-	-
Exchange differences	-	246	-	-	-	-	246
At 31 December	1,047,558	13,685	251,349	132,176	122,253	22,251	1,589,272
Cost	1,047,558	39,511	277,563	157,535	228,241	22,546	1,772,954
Accumulated amortisation	-	(25,826)	(26,214)	(25,359)	(105,988)	(295)	(183,682)
	1,047,558	13,685	251,349	132,176	122,253	22,251	1,589,272

Impairment testing of goodwill

For the purpose of impairment testing, goodwill is allocated to cash-generating units ("CGU"s).

Out of the total goodwill of $1,042,488,000, goodwill allocated from the acquisition of M1 Limited amounted to $988,288,000.

The recoverable amount of M1 as a CGU was determined based on its value-in-use using a discounted cash flow model based on cash flow projections by management covering a 5-year period, and cash flows beyond the 5-year period were extrapolated using a terminal growth rate of 1.48% (2021: 1.48%), premised on the estimated long term growth rate for the country where the CGU operates. Cash flows were discounted using a discount rate of 7.9% (2021: 7%) per annum.

The recoverable amount was estimated to be higher than the carrying value of the M1 Limited CGU. Accordingly, no impairment of goodwill was recognised in 2022 and 2021. The calculation of value-in-use for the CGU is sensitive to the terminal growth rate and the discount rate applied. If the discount rate were to increase by 1.1%, the recoverable amount would decrease and equate the carrying amount, and any further increase in discount rate would result in impairment for the financial year ended 31 December 2022.

15. Stocks

		Group	
		2022 $'000	2021 $'000
Consumable materials and supplies (net of provision)		24,521	227,224
Finished products for sale (net of provision)		40,954	82,651
Work-in-progress (net of provision)		-	1,289,838
Properties held for sale	(a)	2,235,475	3,004,272
		2,300,950	4,603,985

For work-in-progress balances, the Group determines the estimated net realisable value based on arrangements to market the work-in-progress and discounted cash flow models. For the financial year ended 31 December 2022, the work-in-progress balance has been reclassified to disposal group and assets classified as held for sale (Note 37). The provision for stocks to write down its carrying value to its net realisable value at the end of the financial year was $12,080,000 (2021: $177,220,000).

(a) Properties held for sale

	Group	
	2022 $'000	2021 $'000
Properties under development		
Land cost	1,035,952	1,688,380
Development cost incurred to date	370,187	526,584
Related overhead expenditure	201,881	210,084
	1,608,020	2,425,048
Completed properties held for sale	646,795	600,140
	2,254,815	3,025,188
Provision for properties held for sale	(19,340)	(20,916)
	2,235,475	3,004,272

Movements in the provision for properties held for sale are as follows:

	Group	
	2022 $'000	2021 $'000
At 1 January	20,916	19,987
Charge to profit or loss account	76	583
Exchange differences	(1,823)	452
Amount written off	171	(106)
At 31 December	19,340	20,916

See Note 2.28(b)(viii) for further disclosures on estimating NRV of the Group's properties held for sale.

As at 31 December 2022, properties amounting to $248,990,000 (2021: $220,556,000) in value and included in the above balances were mortgaged to the banks as securities for borrowings as referred to in Note 23.

Interest capitalised during the financial year amounted to $10,646,000 (2021: $17,499,000) at rates of 0.95% to 4.71% (2021: 0.79% to 0.95%) per annum for Singapore properties and 2.00% to 7.00% (2021: 1.50% to 7.00%) per annum for overseas properties.

In 2021, the Group reclassified $3,544,000 from properties held for sale to investment properties due to change of use of the assets from property trading to holding for capital gain and/or rental yield. The Group also reclassified $29,547,000 from fixed asset to properties held for sale due to change of use of the assets.

16. Contract assets/liabilities

	Group		
	31 December		1 January
	2022 $'000	2021 $'000	2021 $'000
Non-current	**86,411**	99,109	73,458
Current	**255,900**	3,169,694	2,657,231
Contract assets	**342,311**	3,268,803	2,730,689
Contract liabilities	**209,770**	1,002,024	2,072,303

Contract assets relating to certain rig-building contracts where the scheduled dates of the rigs have been deferred and have higher counter-party risks amounted to $572,179,000 (2021: $1,707,190,000) has been reclassified to disposal group and assets classified as held for sale.

Contract liabilities included proceeds received from sale of properties of $153,487,000 (2021: $535,334,000). Remaining contract liabilities of $56,283,000 (2021: $466,690,000) are recorded when receipts from customers exceed the value of work transferred where the customer is invoiced on a milestone payment schedule.

Revenue recognised during the financial year ended 31 December 2022 in relation to contract liability balance at 1 January 2022 was $882,597,000 (2021: $1,358,302,000).

The aggregate amount of the transaction price allocated to the remaining performance obligations is $1,001,841,000 (2021: $6,047,351,000) and the Group expects to recognise this revenue over the next 1 to 3 years (2021: 1 to 4 years).

Movements in the allowance for expected credit loss for contract assets are as follows:

	Group		
	31 December		1 January
	2022 $'000	2021 $'000	2021 $'000
At 1 January	**432,541**	432,541	21,000
Charge to profit or loss account (Note 27)			
- from continuing operations	**-**	23,225	-
- from discontinued operations	**-**	-	430,842
Amount utilised	**-**	(23,225)	-
Reclassification			
- Stocks - work-in-progress (Note 15)	**-**	-	(19,301)
- Disposal group and assets classified as held for sale	**(432,541)**	-	-
At 31 December	**-**	432,541	432,541

17. Amounts due from/to

	Company	
	2022 $'000	2021 $'000
Subsidiaries		
Amounts due from		
- trade	**143,837**	104,390
- advances	**7,543,926**	9,893,770
	7,687,763	9,998,160
Allowance for expected credit loss	**(141,143)**	(145,251)
	7,546,620	9,852,909
Amounts due to		
- trade	**3,555**	9,820
- advances	**269,508**	165,982
	273,063	175,802
Movements in the allowance for expected credit loss are as follows:		
At 1 January	**145,251**	6,600
Charge to profit or loss account	**279**	138,651
Write-off	**(4,387)**	-
At 31 December	**141,143**	145,251

Advances to and from subsidiaries are unsecured and are repayable on demand. Interest is charged at rates up to 5.84% (2021: up to 4.00%) per annum on interest-bearing advances.

	Group		Company	
	2022 **$'000**	2021 $'000	**2022** **$'000**	2021 $'000
Associated Companies and Joint Ventures				
Amounts due from				
- trade	**39,037**	169,612	**202**	32
- advances	**239,254**	431,854	**-**	-
	278,291	601,466	**202**	32
Allowance for expected credit loss	**(16,223)**	(31,800)	**-**	-
	262,068	569,666	**202**	32
Amounts due to				
- trade	**33,692**	44,017	**900**	882
- advances	**36,171**	242,068	**-**	-
	69,863	286,085	**900**	882
Movements in the allowance for expected credit loss are as follows:				
At 1 January	**31,800**	16,888	**-**	-
Charge to profit or loss account	**1,506**	14,912	**-**	-
Reclassified to disposal group and assets classified as held for sale	**(17,083)**	-	**-**	-
At 31 December	**16,223**	31,800	**-**	-

Advances to and from associated companies and joint ventures are unsecured and are repayable on demand. Interest is charged at rates ranging from 3.00% to 8.00% (2021: 0.05% to 13.00%) per annum on interest-bearing advances.

As at 1 January 2021, the Group's amount due from associated companies and joint ventures relating to trade amounted to $160,987,000.

18. Debtors

	Group		Company	
	2022 **$'000**	2021 $'000	**2022** **$'000**	2021 $'000
Trade debtors	**661,671**	1,218,664	**20**	26
Allowance for expected credit loss	**(29,163)**	(233,267)	**-**	-
	632,508	985,397	**20**	26
Sundry debtors	**119,694**	370,305	**45,795**	22,804
Prepayments	**78,428**	129,802	**12**	87
Tax recoverable	**1,237**	7,755	**-**	-
Value Added Tax receivable	**75,519**	103,382	**179**	32
Interest receivable	**1,712**	25,973	**-**	-
Deposits paid	**44,559**	251,307	**385**	382
Recoverable accounts	**36,542**	62,337	**4,849**	5,637
Accrued receivables	**357,787**	361,846	**7,671**	3,073
Advances to subcontractors	**604**	19,340	**-**	8
Advances to non-controlling shareholders of subsidiaries	**6,583**	4,375	**-**	-
	722,665	1,336,422	**58,891**	32,023
Allowance for expected credit loss	**(115,875)**	(131,129)	**-**	-
	606,790	1,205,293	**58,891**	32,023
Total	**1,239,298**	2,190,690	**58,911**	32,049
Movements in the allowance for expected credit loss are as follows:				
At 1 January	**364,396**	259,345	**-**	-
Charge to profit or loss account	**26,986**	113,379	**-**	-
Amount written off	**(10,998)**	(15,966)	**-**	-
Subsidiaries acquired	**1,265**	-	**-**	-
Subsidiaries disposed	**(1,801)**	-	**-**	-
Exchange differences	**810**	7,638	**-**	-
Reclassified to disposal group and assets classified as held for sale	**(235,620)**	-	**-**	-
Total	**145,038**	364,396	**-**	-

As at 1 January 2021, the Group's net trade debtors amounted to $1,564,398,000.

19. Short term investments

	Group 2022 $'000	Group 2021 $'000
Investments at fair value through other comprehensive income:		
Quoted equity shares	48,097	26,834
Investments at fair value through profit or loss:		
Quoted equity shares	685	269
Total short term investments	48,782	27,103

Investments at fair value through other comprehensive income are mainly in the oil and gas industry listed in Singapore.

20. Bank balances, deposits and cash

	Group		Company	
	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Bank balances and cash	657,790	1,976,981	1,232	810
Fixed deposits with banks	369,653	1,348,400	-	-
Amounts held under escrow accounts for overseas acquisition of land, payment of construction cost, claims and other liabilities	6,290	72,991	-	-
Amounts held under project accounts, withdrawals from which are restricted to payments for expenditures incurred on projects	108,611	218,261	-	-
	1,142,344	3,616,633	1,232	810

Fixed deposits with banks of the Group mature on varying periods, substantially between 1 day to 6 months (2021: 3 days to 6 months). This comprises Singapore Dollars fixed deposits of $81,303,000 (2021: $268,451,000) at interest rates substantially ranging from 2.61% to 3.93% (2021: 0.05% to 0.25%) per annum, and foreign currency fixed deposits of $288,350,000 (2021: $1,079,949,000) at interest rates substantially ranging from 0.32% to 9.2% (2021: 0.10% to 5.40%) per annum.

Cash and cash equivalents of $328,052,000 (2021: $1,013,296,000) held in the People's Republic of China are subject to local exchange control regulations. These regulations place restriction on the amount of currency being exported other than through dividends and capital repatriation upon liquidations.

21. Creditors and other non-current liabilities

	Group		Company	
	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Trade creditors	372,380	763,233	1,005	1,643
Customers' advances and deposits	104,535	85,277	-	-
Sundry creditors	322,887	905,520	4,273	5,186
Accrued expenses	1,787,731	2,928,665	60,654	57,514
Advances from non-controlling shareholders	17,735	21,800	-	-
Retention monies	122,092	187,078	-	-
Interest payables	41,460	46,213	23,153	28,180
	2,768,820	4,937,786	89,085	92,523
Other non-current liabilities:				
Accrued expenses	301,563	111,142	29,228	32,187
Advances from non-controlling shareholders	255,975	142,015	-	-
	557,538	253,157	29,228	32,187

Advances from non-controlling shareholders of certain subsidiaries are unsecured and are repayable on demand. Interest is charged at rates ranging from 1.65% to 5.24% (2021: 0.50% to 3.62%) per annum on interest-bearing advances.

The carrying amount of the non-current liabilities approximates their fair value.

22. Provisions

	Group					
	2022			2021		
	Warranties $'000	**Onerous Contract $'000**	**Total $'000**	Warranties $'000	Onerous Contract $'000	Total $'000
At 1 January	**28,932**	**37,831**	**66,763**	39,449	27,290	66,739
(Write-back)/Charge to profit or loss account	**(5,986)**	**63,457**	**57,471**	(9,866)	186,859	176,993
Amount utilised	**(6,871)**	**(27,887)**	**(34,758)**	(252)	(176,318)	(176,570)
Exchange differences	**(931)**	**(303)**	**(1,234)**	(399)	-	(399)
Reclassified to disposal group and liabilities classified as held for sale	**(10,966)**	**(18,831)**	**(29,797)**	-	-	-
At 31 December	**4,178**	**54,267**	**58,445**	28,932	37,831	66,763

23. Term loans

		2022		2021	
		Due within one year $'000	**Due after one year $'000**	Due within one year $'000	Due after one year $'000
Group					
Keppel Corporation Medium Term Notes	(a)	**200,000**	**1,817,864**	700,000	2,053,710
Keppel Land Medium Term Notes	(b)	**299,979**	**409,619**	199,978	709,403
Keppel Telecommunications & Transportation Medium Term Notes	(c)	**-**	**-**	-	100,000
Keppel Corporation Commercial Papers	(d)	**35,996**	**-**	128,000	-
Bank loans					
- secured	(e)	**127,393**	**554,291**	8,852	717,559
- unsecured	(f)	**2,914,290**	**3,821,412**	3,622,478	3,215,240
		3,577,658	**6,603,186**	4,659,308	6,795,912
Company					
Keppel Corporation Medium Term Notes	(a)	**200,000**	**1,817,864**	700,000	2,053,710
Keppel Corporation Commercial Papers	(d)	**35,996**	**-**	128,000	-
Unsecured bank loans	(f)	**2,553,305**	**2,226,120**	2,498,730	2,059,985
		2,789,301	**4,043,984**	3,326,730	4,113,695

(a) At the end of the financial year, notes issued under the US$5,000,000,000 Multi-Currency Medium Term Note Programme by the Company amounted to $2,017,864,000 (2021: $2,753,710,000). The notes denominated in Singapore Dollars, US Dollars and Japanese Yen, are unsecured and comprised fixed rate notes due from 2023 to 2042 (2021: from 2022 to 2042) with interest rates ranging from 0.88% to 4.00% (2021: 0.88% to 4.00%) per annum.

(b) At the end of the financial year, notes issued under the US$3,000,000,000 Multi-Currency Medium Term Note Programme by Keppel Land Limited and its wholly-owned subsidiary, Keppel Land Financial Services Pte. Ltd. amounted to $579,672,000 (2021: $579,518,000). The notes denominated in Singapore Dollars, are unsecured and comprised fixed rate notes due from 2023 to 2026 (2021: 2023 to 2026), with interest rates ranging from 2.00% to 2.84% (2021: 2.00% to 2.84%) per annum.

At the end of the financial year, notes issued under the US$800,000,000 Multi-Currency Medium Term Note Programme by Keppel Land Limited amounted to $129,926,000 (2021: $329,863,000). The notes denominated in Singapore Dollars, are unsecured and comprised fixed rate notes due in 2024 (2021: 2022 to 2024) with interest rates of 3.90% (2021: 3.80% to 3.90%) per annum.

(c) At the end of 2021 financial year, notes issued under the $500,000,000 Multi-Currency Medium Term Note Programme by Keppel Telecommunications & Transportation Ltd, amounted to $100,000,000. The fixed rate notes, due in 2024, are unsecured and carried an interest rate of 2.85% per annum from September 2017 to September 2022 and 3.85% per annum from September 2022 to September 2024. The MTN has since been fully redeemed and cancelled on 5 September 2022.

(d) At the end of the financial year, commercial papers issued under the US$1,000,000,000 Multi-Currency Euro Commercial Paper Programme by the Company amounted to $35,996,000 (2021: $128,000,000). The commercial papers, which are denominated in Singapore Dollars, are unsecured and comprised fixed rate commercial papers due in 2023 (2021: 2022) with interest rate of 0.90% (2021: 0.58% to 0.64%) per annum.

23. Term loans (continued)

(e) The secured bank loans consist of:

- A term loan of $39,615,000 drawn down by a subsidiary. The term loan is repayable in 2027 and is secured on certain assets of the subsidiary and bear interest at rate of 18.25% per annum.

- A term loan of $71,428,000 drawn down by a subsidiary. The term loan is repayable in 2023 and is secured on certain assets of the subsidiary and bear interest at rates of 0.95% to 4.71% per annum.

- A term loan of $76,561,000 drawn down by a subsidiary. The term loan is repayable in 2024 and is secured on certain assets of the subsidiary and bear interest at rate of 4.68% per annum.

- A term loan of $433,849,000 drawn down by a subsidiary. The term loan is repayable in 2034 and is secured on certain assets of the subsidiary and bear interest at rates of 3.96% to 4.31% per annum.

- Other secured bank loans totaling $60,231,000 (2021: $222,695,000) comprised $38,572,000 (2021: $92,264,000) of loans denominated in Singapore Dollars and $21,659,000 (2021: $130,431,000) of foreign currency loans. They are repayable within one to six (2021: one to six) years and are secured on investment properties and certain fixed and other assets of the subsidiaries. Interest on foreign currency loans ranges from 3.80% to 16.00% (2021: 3.90% to 13.25%) per annum.

(f) The unsecured bank loans of the Group totaling $6,735,702,000 (2021: $6,837,718,000) comprised $2,973,178,000 (2021: $2,768,820,000) of loans denominated in Singapore Dollars and $3,762,524,000 (2021: $4,068,898,000) of foreign currency loans. They are repayable within one to six (2021: one to ten) years. Interest on loans denominated in Singapore Dollars ranges from 0.71% to 5.05% (2021: 0.67% to 3.05%) per annum. Interest on foreign currency loans ranges from 0.50% to 7.85% (2021: 0.06% to 10.95%) per annum.

The unsecured bank loans of the Company totaling $4,779,425,000 (2021: $4,558,715,000) comprised $1,360,000,000 (2021: $1,280,000,000) of loans denominated in Singapore Dollars and $3,419,425,000 (2021: $3,278,715,000) of foreign currency loans. They are repayable within one to five years (2021: one to four years). Interest on loans denominated in Singapore Dollars ranges from 0.71% to 5.03% (2021: 0.71% to 1.28%) per annum. Interest on foreign currency loans ranges from 0.50% to 5.84% (2021: 0.06% to 1.46%) per annum.

The Group has mortgaged certain properties and assets of up to an aggregate amount of $2,165,124,000 (2021: $2,223,200,000) to banks for loan facilities.

The fair values of term loans for the Group and Company are $9,805,129,000 (2021: $11,304,660,000) and $6,498,043,000 (2021: $7,312,908,000) respectively. These fair values, under Level 2 of the fair value hierarchy, are computed on the discounted cash flow method using discount rates based upon the borrowing rates which the Group expect would be available as at the balance sheet date.

Loans due after one year are estimated to be repayable as follows:

	Group		Company	
	2022 $'000	2021 $'000	**2022 $'000**	2021 $'000
Years after year-end:				
After one but within two years	**1,859,527**	1,652,688	**842,710**	889,922
After two but within five years	**3,671,418**	3,929,770	**2,551,274**	2,476,893
After five years	**1,072,241**	1,213,454	**650,000**	746,880
	6,603,186	6,795,912	**4,043,984**	4,113,695

24. Deferred taxation

	Group 2022 $'000	Group 2021 $'000
Deferred tax liabilities	**368,031**	426,891
Deferred tax assets	**(87,624)**	(212,679)
Net deferred tax liabilities	**280,407**	214,212

Net deferred tax liabilities are determined by offsetting deferred tax assets against deferred tax liabilities of the same entities arising from same tax jurisdiction. Deferred tax assets are recognised for unutilised tax benefits carried forward to the extent that realisation of the related tax benefits through future taxable profits is probable.

The Group has unrecognised deferred tax liabilities of $13,434,000 (2021: $41,815,000) for taxes that would be payable on the undistributed earnings of certain subsidiaries as these earnings would not be distributed in the foreseeable future and the Group is in a position to control the timing of the reversal of the temporary differences.

The Group has unrecognised deferred tax liabilities of $10,970,000 (2021: $14,632,000) for taxes that would be payable on the undistributed earnings of certain associated companies as these earnings would not be distributed in the foreseeable future.

The Group has unutilised tax losses and capital allowances of $681,521,000 (2021: $1,035,843,000) for which no deferred tax benefit is recognised in the balance sheet. These tax losses and capital allowances can be carried forward and used to offset against future taxable income subject to meeting certain statutory requirements by those companies with unrecognised tax losses and capital allowances in their respective countries of incorporation. Tax losses amounting to $337,067,000 (2021: $276,311,000) can be carried forward for a period of one to nine years subsequent to the year of the loss, while the remaining tax losses have no expiry date.

Movements in deferred tax liabilities and assets are as follows:

	At 1 January $'000	Charged/ (credited) to profit or loss $'000	Charged/ (credited) to other comprehensive income $'000	Net subsidiaries acquired/ disposed $'000	Reclassification to liabilities directly associated with assets classified as held for sale $'000	Exchange differences $'000	At 31 December $'000
Group							
2022							
Deferred Tax Liabilities							
Accelerated tax depreciation	**202,506**	**(1,065)**	**-**	**803**	**(56,962)**	**(1,099)**	**144,183**
Investment properties valuation	**170,157**	**32,162**	**-**	**-**	**-**	**(18,342)**	**183,977**
Offshore income & others	**87,242**	**(6,782)**	**-**	**(32,801)**	**(6,156)**	**(3,031)**	**38,472**
Total	**459,905**	**24,315**	**-**	**(31,998)**	**(63,118)**	**(22,472)**	**366,632**
Deferred Tax Assets							
Other provisions	**(117,525)**	**(9,462)**	**-**	**546**	**100,412**	**450**	**(25,579)**
Unutilised tax benefits	**(110,590)**	**10,314**	**-**	**-**	**32,941**	**4,609**	**(62,726)**
Lease liabilities	**(17,578)**	**765**	**-**	**3,557**	**16,574**	**(1,238)**	**2,080**
Total	**(245,693)**	**1,617**	**-**	**4,103**	**149,927**	**3,821**	**(86,225)**
Net Deferred Tax Liabilities	**214,212**	**25,932**	**-**	**(27,895)**	**86,809**	**(18,651)**	**280,407**
2021							
Deferred Tax Liabilities							
Accelerated tax depreciation	301,431	(101,324)	-	-	-	2,399	202,506
Investment properties valuation	116,697	46,223	-	-	-	7,237	170,157
Offshore income & others	82,773	5,132	(108)	(4,224)	-	3,669	87,242
Total	500,901	(49,969)	(108)	(4,224)	-	13,305	459,905
Deferred Tax Assets							
Other provisions	(113,103)	(3,099)	-	-	-	(1,323)	(117,525)
Unutilised tax benefits	(84,213)	(20,523)	-	-	-	(5,854)	(110,590)
Lease liabilities	(19,465)	1,785	-	-	-	102	(17,578)
Total	(216,781)	(21,837)	-	-	-	(7,075)	(245,693)
Net Deferred Tax Liabilities	284,120	(71,806)	(108)	(4,224)	-	6,230	214,212

25. Revenue

	Group	
	2022 $'000	2021# $'000
Revenue from contracts with customers		
Revenue from construction contracts	410,181	350,734
Sale of property	809,744	1,538,477
Sale of goods	456,207	391,112
Sale of electricity, utilities and gases	3,637,267	3,050,539
Revenue from telecommunication services	738,233	702,263
Revenue from other services rendered	494,579	503,295
	6,546,211	6,536,420
Other sources of revenue		
Rental income from investment properties	73,507	74,916
	6,619,718	6,611,336

26. Staff costs

	Group	
	2022 $'000	2021# $'000
Wages and salaries	515,838	517,636
Employer's contribution to Central Provident Fund	57,892	54,792
Share plans granted to Director and employees	43,403	37,369
Other staff benefits	50,745	55,372
	667,878	665,169

27. Operating profit

Operating profit from continuing operations is arrived at after charging/(crediting) the following:

	Group	
	2022 $'000	2021# $'000
Included in materials and subcontract costs:		
Cost of stocks & contract assets	948,116	1,380,717
Direct operating expenses		
- investment properties that generated rental income	32,669	32,507
Included in staff costs:		
Key management's emoluments		
(including executive directors' remuneration)		
- short-term employee benefits	15,182	10,875
- post-employment benefits	89	93
- share plans granted	11,826	9,810
Included in expected credit loss on debtors & receivables, contract assets and financial guarantee:		
Expected credit loss on debtors and receivables (Note 13 & 18)	32,999	129,396
Bad debts written-off	1,011	835
Expected credit loss on contract assets (Note 16)	-	23,225
Expected credit loss on financial guarantee (Note 13)	-	146,024

Comparative information has been re-presented due to a discontinued operation (Note 37).

	Group	
	2022 **$'000**	2021# $'000
Included in other operating income - net:		
Government grant income	**(11,452)**	(20,545)
Impairment of associated companies (Note 11 & 13)	**1,000**	35,082
Impairment/write-off of fixed and intangible assets	**1,171**	53,345
Provision for stocks	**6,939**	1,279
Fair value gain on investment properties (Note 8)	**(131,711)**	(238,458)
Fair value gain on		
- investments and associated companies	**(57,801)**	(315,540)
- forward foreign exchange contracts	**-**	(1,614)
Gain on differences in foreign exchange	**(704)**	(15,818)
(Gain)/Loss on sale of fixed assets	**639**	(1,473)
Gain on sale of investments	**(16)**	(9,833)
Gain on disposal of subsidiaries	**(22,498)**	(241,054)
Gain on disposal of associated companies and joint ventures	**(358)**	(208,655)
Loss from sale of interests in associated companies	**40,168**	-
Gain from change in interest in associated companies	**(10,933)**	(8,516)
Gain on acquisition of subsidiaries	**(6,795)**	-
Fair value gain on remeasurement of remaining interest in a joint venture	**-**	(69,469)
Fees and other remuneration to Directors of the Company	**2,487**	2,282
Auditors' remuneration^		
- auditors of the Company	**3,037**	2,257
- other auditors of subsidiaries	**2,105**	1,719
Non-audit fees paid to^		
- auditors of the Company	**603**	1,881
- other auditors of subsidiaries	**193**	209

^ Including the discontinued operations, the Group's total auditors' remuneration and non-audit fees paid amounts to $6,412,000 (2021: $5,502,000) and $803,000 (2021: $2,141,000) respectively.

Government grant income of $277,000 (2021: $8,047,000) was recognised during the financial year under the Jobs Support Scheme ("JSS"). The JSS is a temporary scheme introduced in the Singapore Budget 2020 to help enterprises retain local employees. Under the JSS, employers will receive cash grants in relation to the gross monthly wages of eligible employees.

In the prior year, gain on disposal of associated companies and joint ventures was mainly attributable to the divestment of Dong Nai Waterfront City LLC, Nanjing Jinsheng Real Estate Development Co., Ltd., Wuhu Sanshan Port Co., Ltd., and gain from divestment of interest in Keppel Logistics (Foshan) following agreement reached with local authorities on Lanshi port closure compensation. Dong Nai Waterfront City LLC was disposed to an associated company of the Group.

In the prior year, the fair value gain on remeasurement of remaining interest in a joint venture arose from the partial disposal with loss of control over the Group's former wholly-owned subsidiary, Tianjin Fushi Property Development Co., Ltd.

Loss from sale of interests in associated companies in the current year was mainly attributable to the loss on partial disposal of interest in MET Holding AG.

Comparative information has been re-presented due to a discontinued operation (Note 37).

28. Investment income, interest income and interest expenses

	Group	
	2022 $'000	2021# $'000
Investment income from:		
Shares - quoted	38,320	37,672
Shares/funds - unquoted	10,221	67,189
	48,541	104,861
Interest income from:		
Bonds, debentures, deposits and others	22,221	22,043
Associated companies and joint ventures	54,646	51,881
Service concession arrangement	14,481	14,382
	91,348	88,306
Interest expenses on notes, loans and overdrafts	(137,098)	(161,590)
Interest expenses on lease liabilities	(10,262)	(10,082)
Fair value gain on interest rate caps and swaps	1,173	1,570
	(146,187)	(170,102)

29. Taxation

(a) Income tax expense

	Group	
	2022 $'000	2021# $'000
Tax expense comprised:		
Current tax – continuing operations	156,382	340,311
Adjustment for prior year's tax	(13,105)	(33,162)
Others	19,988	16,349
	163,265	323,498
Deferred tax (Note 24):		
Current deferred tax – continuing operations	21,040	(56,592)
Adjustment for prior year's tax	-	1,829
	21,040	(54,763)
Land appreciation tax:		
Current year	60,844	106,454
Taxation – continuing operations	245,149	375,189
Taxation – discontinued operations	33,212	(50,205)
	278,361	324,984

Comparative information has been re-presented due to a discontinued operation (Note 37).

The income tax expense on the results of the Group differ from the amount of income tax expense determined by applying the Singapore standard rate of income tax to profit before tax due to the following:

	Group	
	2022 $'000	2021# $'000
Profit before tax – continuing operations	1,094,888	1,611,153
Profit/(loss) before tax – discontinued operations	116,278	(276,157)
Share of profit of associated companies and joint ventures, net of tax – continuing operations	(535,979)	(458,765)
Share of profit of associated companies and joint ventures, net of tax – discontinued operations	(4,420)	(8,135)
Profit before tax and share of profit of associated companies and joint ventures	670,767	868,096
Tax calculated at tax rate of 17% (2021: 17%)	114,030	147,576
Income not subject to tax	(105,735)	(155,990)
Expenses not deductible for tax purposes	180,037	217,497
Unrecognised tax benefits	82,901	26,387
Effect of different tax rates in other countries	(1,817)	45,128
Adjustment for prior year's tax	(36,687)	(35,449)
Land appreciation tax	60,844	106,454
Effect of tax deduction on land appreciation tax	(15,212)	(26,619)
	278,361	324,984
Income tax expense – continuing operations	245,149	375,189
Income tax expense – discontinued operations	33,212	(50,205)
	278,361	324,984

(b) Movement in current income tax liabilities

	Group		Company	
	2022 $'000	2021 $'000	2022 $'000	2021 $'000
At 1 January	505,479	358,802	39,651	29,155
Exchange differences	(28,708)	14,632	-	-
Tax expense	171,589	307,720	7,356	8,474
Adjustment for prior year's tax	(15,412)	(34,238)	(6,512)	(5,300)
Land appreciation tax	60,844	106,454	-	-
Net income taxes paid	(444,462)	(259,964)	2,974	7,290
Subsidiaries acquired	2,204	-	-	-
Subsidiaries disposed	600	(2,182)	-	-
Reclassification				
- tax recoverable and others	19,020	14,328	44	32
- liabilities directly associated with assets classified as held for sale	(12,164)	(73)	-	-
At 31 December	258,990	505,479	43,513	39,651

Comparative information has been re-presented due to a discontinued operation (Note 37).

30. Earnings per ordinary share

	Group			
	2022 $'000		2021# $'000	
	Basic	Diluted	Basic	Diluted
Profit for the year from continuing operations	838,959	838,959	1,247,468	1,247,468
Profit/(loss) for the year from discontinued operations	87,658	87,658	(224,817)	(224,817)
Net profit attributable to shareholders of the company	926,617	926,617	1,022,651	1,022,651
	Number of Shares '000		Number of Shares '000	
Weighted average number of ordinary shares (excluding treasury shares)	1,777,509	1,777,509	1,820,424	1,820,424
Adjustment for dilutive potential ordinary shares	-	17,785	-	10,447
Weighted average number of ordinary shares used to compute earnings per share (excluding treasury shares)	1,777,509	1,795,294	1,820,424	1,830,871
Earnings per ordinary share - continuing operations	47.2 cts	46.7 cts	68.5 cts	68.1 cts
Earnings per ordinary share - discontinued operations	4.9 cts	4.9 cts	(12.3) cts	(12.2) cts
Earnings per ordinary share	52.1 cts	51.6 cts	56.2 cts	55.9 cts

31. Dividends

A final cash dividend of 18.0 cents per share tax exempt one-tier (2021: final cash dividend of 21.0 cents per share tax exempt one-tier) in respect of the financial year ended 31 December 2022 has been proposed for approval by shareholders at the next annual general meeting to be convened.

Together with the interim cash dividend of 15.0 cents per share tax exempt one-tier (2021: interim cash dividend of 12.0 cents per share tax exempt one-tier), total distributions paid and proposed in respect of the financial year ended 31 December 2022 will be 33.0 cents per share (2021: 33.0 cents per share).

During the financial year, the following distributions were made:

	$'000
A final cash dividend of 21.0 cents per share tax exempt one-tier on the issued and fully paid ordinary shares in respect of the previous financial year	378,094
An interim cash dividend of 15.0 cents per share tax exempt one-tier on the issued and fully paid ordinary shares in respect of the current financial year	265,139
	643,233

In the prior year, total distributions of $345,752,000 were made.

Comparative information has been re-presented due to a discontinued operation (Note 37).

32. Commitments

(a) Capital commitments

	Group 2022 Continuing Operations $'000	Group 2022 Discontinued Operations $'000	Group 2021 $'000
Capital expenditure/commitments not provided for in the financial statements:			
In respect of contracts placed:			
- for purchase and construction of investment properties	**379,342**	**-**	484,512
- for purchase of fixed assets	**936,048**	**3,197**	252,960
- for purchase/subscription of shares	**275,861**	**-**	548,066
- for commitments to associated companies and joint ventures	**1,055,105**	**-**	955,074
- for commitments to private funds	**65,598**	**2,259**	60,553
Amounts approved by Directors in addition to contracts placed:			
- for purchase and construction of investment properties	**674,065**	**-**	717,065
- for purchase of fixed assets	**242,905**	**46,181**	261,849
- for purchase/subscription of shares mainly in property development companies	**140,609**	**-**	32,015
	3,769,533	**51,637**	3,312,094
Less: Non-controlling shareholders' share	**(39,205)**	**-**	(118,362)
	3,730,328	**51,637**	3,193,732

There was no significant future capital expenditure/commitment for the Company.

(b) Lessee's lease commitments

The Group has adopted SFRS(I) 16 *Leases* on 1 January 2019. Under the new standard, an asset (the right to use the leased item) and a financial liability to pay rentals are recognised on balance sheet. The right-of-use assets and lease liabilities are disclosed in Note 9.

33. Contingent liabilities and guarantees

	Group 2022 Continuing Operations $'000	Group 2022 Discontinued Operations $'000	Group 2021 $'000	Company 2022 $'000	Company 2021 $'000
Guarantees in respect of banks and other loans granted to subsidiaries, associated companies and joint ventures	**156,787**	**-**	233,151	**462,579**	655,005
Bank guarantees	**382,630**	**61,364**	626,258	**-**	-
Share of lease rental guarantees granted by associated companies and joint ventures	**101,072**	**-**	147,775	**-**	-
Performance guarantees issued for contracts awarded to customers and third parties	**-**	**784,712**	-	**-**	-
Performance guarantee in favour of a non-related company in respect of performance on a contract by a subsidiary, and a related guarantee in respect of bank loan granted to a non-related party	**424,640**	**-**	487,137	**-**	-
	1,065,129	**846,076**	1,494,321	**462,579**	655,005

Included in the above guarantees is a bilateral agreement between the Group and financial institutions which guaranteed a revolving credit facility granted to Floatel International Limited, an associated company, amounting to $82,551,000 (2021: $119,386,000). The guarantee is secured on the assets of Floatel International Limited. See further details on the Group's equity interest in Floatel in Note 11(d).

The financial effects of SFRS(I) 9 relating to financial guarantee contracts issued by the Company are not material to the financial statements of the Company and therefore are not recognised.

33. Contingent liabilities and guarantees (continued)

Claims and litigations relating to disposal group held for sale

Keppel Offshore & Marine's Joint Resolution with Brazilian Authorities
On 19 December 2022, Keppel Offshore & Marine ("KOM") reached a joint resolution with the authorities in Brazil, namely Brazilian Attorney-General's Office ("AGU") and Comptroller General of the Union ("CGU"), in relation to the corrupt payments made by a former agent of KOM in Brazil, which was previously announced in December 2017. Following KOM's full cooperation with AGU's and CGU's investigations, KOM entered into a leniency agreement with the two Brazilian authorities and committed to a total payment of R$343,571,455.25 (equivalent to approximately US$65 million) in fines and damages. The Attorney-General's Chambers of Singapore ("AGC") and the Corrupt Practices Investigation Bureau ("CPIB") have confirmed that KOM may avail itself of the crediting of up to US$52,777,122.50, pursuant to the terms of the CPIB Conditional Warning issued on 23 December 2017, in respect of the fines payable by KOM to the Brazilian authorities and KOM has made full payment of the fines and damages payable under the leniency agreement with the two authorities in January 2023. With the earlier leniency agreement with the MPF and this additional agreement, both of which provide for the payment of fines and damages in connection to the same matter, KOM does not expect further grounds for liability in Brazil in relation to these issues.

EIG Energy Fund XIV, L.P., et al. v. Keppel Offshore & Marine Ltd., (United States District Court, Southern District of New York)
In February 2018, the Group was served a summons by eight investment funds ("Plaintiffs") managed by EIG Management Company, LLC ("EIG") where a civil action was commenced by the Plaintiffs pursuant to the Racketeer Influenced and Corrupt Organizations Act ("RICO") in the United States District Court, Southern District of New York. In April 2018, the Plaintiffs added, among other things, a state law claim for aiding and abetting fraud. In May 2020, the Court dismissed the Plaintiffs' civil RICO conspiracy claim but denied the Group's motion to dismiss the Plaintiff's claim on aiding and abetting fraud under New York state law. Consequently, the Plaintiffs currently seek US$221 million plus punitive damages, interest, attorney's fees, costs and disbursements, based on the remaining claim for aiding and abetting fraud.

Following completion of factual depositions, in late September 2021, the Plaintiffs and the Group have each served a motion for summary judgment, seeking judgment on the abovementioned claim which the Plaintiffs have presently quantified at approximately US$820 million in aggregate, including US$442 million in punitive damages and US$157 million as pre-judgment interest. Each party's opening brief, opposition brief and reply brief were filed with the Court on 2 November 2021. There currently is no scheduled hearing date for the summary judgment motions.

Based on advice obtained from a legal counsel, there is a very low risk that the Court would award any damages to the Plaintiffs on summary judgment. However, as to the trial itself, because the outcome of this matter and the potential amount of any loss are uncertain and the legal counsel have not formed a conclusion that an unfavourable outcome is either probable or remote, the legal counsel expressed no opinion as to the likelihood of an unfavourable outcome or as to the potential amount of loss.

Termination of Two Mid-Water Semisubmersible Drilling Rig Contracts
A subsidiary of Keppel Offshore & Marine Ltd ("KOM subsidiary") terminated two contracts with subsidiaries of a customer for the construction of two mid-water semisubmersible drilling rig for harsh environment use:

(i) In June 2020, the buyer under the first of these contracts ("First Contract") alleged a breach of contract by the KOM subsidiary and purportedly terminated the First Contract and sought recovery of the payments already made to the KOM subsidiary with interest. The allegations by the buyer were refuted and the purported termination of the contract was rejected by the KOM subsidiary. The buyer subsequently failed to pay an instalment due under the First Contract. Non-payment of any instalment by the customer is a default in accordance with the First Contract, entitling the KOM subsidiary to terminate the First Contract, retain all payments received to date (approximately US$54 million), and seek compensation for the work done to date and claim ownership of the rig. The KOM subsidiary had therefore issued a notice of termination of the First Contract to the buyer and commenced arbitration to enforce its rights under the First Contract against the buyer.

(ii) In December 2020, the KOM subsidiary issued a notice of termination of the second of these contracts ("Second Contract") and commenced arbitration to enforce its rights under the Second Contract against the buyer, which rights include the right to retain the amounts already paid by the buyer to date of approximately US$43 million and to seek reimbursement of the KOM subsidiary's costs of the project to the date of termination.

    Subsequent to the issuance of this notice of termination, the KOM subsidiary has received a notice from the buyer purporting to terminate the Second Contract, alleging breaches under the Second Contract. As it had already terminated the Second Contract, the KOM subsidiary's position is that the notice of termination can have no effect. In any event, the KOM subsidiary refutes the abovementioned allegations by the buyer in the notice.

The disputes in respect of the First Contract and the Second Contract are in the midst of separate arbitration proceedings between the parties.

The Group is working with legal advisors to enforce its rights and will continue to evaluate the potential financial impact in consultation with its advisors. Based on currently available information, including opinion from the legal advisors, no provision was made in respect of the recovery of the payments already made to the Group by the two buyers.

Arbitration in relation to two Floating Production Storage and Offloading Units
Two of the Company's wholly-owned subsidiaries have received a request for arbitration from the customer ("Claimant") to two engineering, procurement and construction contracts relating to Floating Production Storage and Offloading units ("EPC Contracts"). The Claimant has withheld a total of approximately US$11.3 million due to the subsidiaries and has claimed a further amount of approximately US$38.2 million on the basis that the Claimant is allegedly entitled to a price reduction and remediation costs associated with defective equipment supplied under the EPC contracts (the "Claim").

The subsidiaries, in consultation with legal advisors, have denied the Claimant's alleged right to such price reductions and the defective equipment and have defended and challenged the Claims in the arbitration proceedings commenced by the Claimant and have sought remedies, including counterclaims for the sums unduly withheld by the Claimant.

Based on currently available information, including opinion from the legal advisors, no provision was made in respect of the Claim as at 31 December 2022.

34. Significant related party transactions

In addition to the related party information disclosed elsewhere in the financial statements, the Group has significant related party transactions as follows:

	Group	
	2022 $'000	2021 $'000
Sales of goods, services and/or fixed assets to		
- associated companies	**196,399**	138,885
- joint ventures	**8,108**	592,784
- other related parties	**135,797**	143,829
	340,304	875,498
Purchase of goods and/or services from		
- associated companies	**255,653**	266,007
- joint ventures	**57,705**	14,331
- other related parties	**209,060**	177,859
	522,418	458,197
Treasury transactions with		
- associated companies	**3,207**	1,401
- joint ventures	**7,822**	7,349
	11,029	8,750

35. Financial risk management

The Group operates internationally and is exposed to a variety of financial risks, comprising market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk. Financial risk management is carried out by the Keppel Group Treasury Department in accordance with established policies and guidelines. These policies and guidelines are established by the Group Central Finance Committee and are updated to take into account changes in the operating environment. This committee is chaired by the Chief Financial Officer of the Company and includes Chief Financial Officers of the Group's key operating companies and Head Office specialists.

(a) Market Risk

(i) Derivative financial instruments

	Group			
		Fair Value		
	Contract notional amount $'000	Asset $'000	Liability $'000	Notional amount directly impacted by IBOR reform $'000
2022				
Cashflow hedges				
- Forward foreign currency contracts	**2,589,650**	**14,384**	**27,480**	**n.a.**
- Cross currency swaps	**1,466,863**	**17,300**	**121,836**	**-**
- Interest rate swaps	**3,378,334**	**186,983**	**-**	**170,950**
- HSFO forward contracts	**165,978**	**23,897**	**40,480**	**n.a.**
- Dated Brent forward contracts	**344,615**	**20,436**	**6,973**	**n.a.**
- JKM forward contracts	**124,232**	**-**	**55,840**	**n.a.**
- ICE Brent Crude forward contracts	**63,530**	**13,214**	**159**	**n.a.**
- Electricity futures contracts	**28,815**	**1,998**	**17,090**	**n.a.**
2021				
Cashflow hedges				
- Forward foreign currency contracts	5,329,496	47,386	21,652	n.a.
- Cross currency swaps	1,200,775	387	55,955	-
- Interest rate swaps	3,912,772	26,343	32,094	2,140,817
- HSFO forward contracts	400,325	113,369	1,710	n.a.
- Dated Brent forward contracts	6,951	24	224	n.a.
- Electricity futures contracts	94,691	27	237,763	n.a.

The fair value of forward foreign currency contracts is determined using forward exchange market rates at the balance sheet date. The fair value of High Sulphur Fuel Oil ("HSFO") and Dated Brent forward contracts is determined using forward HSFO and Dated Brent prices provided by the Group's key counterparty. The fair value of JKM forward contracts is determined using forward Japan/Korea Marker prices provided by the Group's key counterparty. The fair value of ICE Brent Crude forward contracts is determined using Intercontinental Exchange Brent Crude prices provided by the Group's key counterparty. The fair value of electricity future contracts is determined based on the Uniform Singapore Energy Price quarterly base load electricity futures prices quoted on the Singapore Exchange. The fair value of interest rate caps and interest rate swaps are based on valuations provided by the Group's bankers.

(ii) Currency risk

The Group has receivables and payables denominated in foreign currencies via US Dollars, Renminbi and other currencies. The Group's foreign currency exposures arise mainly from the exchange rate movement of these foreign currencies against the functional currencies of the respective Group entities. To hedge against the volatility of future cash flows caused by changes in foreign currency rates, the Group utilises forward foreign currency contracts, cross currency swap agreements and other foreign currency hedging instruments to hedge the Group's exposure to specific currency risks relating to investments, receivables, payables and other commitments. Group Treasury Department monitors the current and projected foreign currency cash flow of the Group and aims to reduce the exposure of the net position in each currency by borrowing in foreign currency and other currency contracts where appropriate.

As at the end of the financial year, the Group has outstanding forward foreign exchange contracts. See Note 35(a)(i) for further details pertaining to the notional amounts and fair value of the forward foreign exchange contracts. These fair value amounts are recognised as derivative assets and derivative liabilities. As at the end of the financial year, the Company has outstanding forward foreign exchange contracts with notional amounts totalling $1,639,730,000 (2021: $4,956,170,000). The net negative fair value of forward foreign exchange contracts is $8,983,000 (2021: net positive fair value of $22,105,000) comprising assets of $9,533,000 (2021: $43,757,000) and liabilities of $18,515,000 (2021: $21,652,000). These fair value amounts are recognised as derivative assets and derivative liabilities.

As at the end of the financial year, the Group has outstanding cross currency swap agreements. See Note 35(a)(i) for further details pertaining to the notional amounts and fair value of the cross currency swap agreements. These fair value amounts are recognised as derivative assets and derivative liabilities.

Other than the above hedged foreign currency contracts, the unhedged currency exposure of financial assets and financial liabilities denominated in currencies other than the respective entities' functional currencies are as follows:

	2022				2021			
	USD $'000	RMB $'000	BRL $'000	Others $'000	USD $'000	RMB $'000	BRL $'000	Others $'000
Group								
Financial Assets								
Debtors	109,316	48,866	-	2,620	53,890	64,300	189	4,402
Investments	801,896	-	-	165,719	720,956	-	-	125,455
Bank balances, deposits & cash	614,770	100,261	37	167,223	567,102	408,536	34	210,797
	1,525,982	149,127	37	335,562	1,341,948	472,836	223	340,654
Financial Liabilities								
Creditors	189,401	107,477	1,333	8,219	111,854	603	13,903	8,189
Term loans	2,742,038	-	-	43,461	2,610,015	-	-	130,674
Lease liabilities	-	227	-	-	-	322	-	1,729
	2,931,439	107,704	1,333	51,680	2,721,869	925	13,903	140,592

	2022			2021		
	USD $'000	RMB $'000	Others $'000	USD $'000	RMB $'000	Others $'000
Company						
Financial Assets						
Debtors	-	15	-	1,071	58	-
Bank balances, deposits & cash	420,402	-	157,584	411,516	-	193,760
	420,402	15	157,584	412,587	58	193,760
Financial Liabilities						
Creditors	14,752	114	-	6,053	122	107
Term loans	2,742,038	-	43,461	2,610,015	-	130,674
Lease liabilities	-	227	-	-	322	-
	2,756,790	341	43,461	2,616,068	444	130,781

Sensitivity analysis for currency risk

If the relevant foreign currency change against SGD by 5% (2021: 5%) with all other variables held constant, the effects will be as follows:

	Profit before tax		Equity	
	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Group				
USD against SGD				
- Strengthened	(77,713)	(77,487)	7,419	8,315
- Weakened	77,713	77,487	(7,419)	(8,315)
RMB against SGD				
- Strengthened	2,071	23,596	-	-
- Weakened	(2,071)	(23,596)	-	-
BRL against SGD				
- Strengthened	(54)	(568)	-	-
- Weakened	54	568	-	-
Company				
USD against SGD				
- Strengthened	(116,853)	(89,827)	-	-
- Weakened	116,853	89,827	-	-
RMB against SGD				
- Strengthened	(8)	(19)	-	-
- Weakened	8	19	-	-

35. Financial risk management (continued)

(iii) Interest rate risk

The Group is exposed to interest rate risk for changes in interest rates primarily for debt obligations, placements in the money market and investments in bonds. The Group policy is to maintain a mix of fixed and variable rate debt instruments with varying maturities. Where necessary, the Group uses derivative financial instruments to hedge interest rate risks.

The Group enters into interest rate swap agreements to hedge the interest rate risk exposure arising from its Singapore dollar and US dollar variable rate term loans (Note 23). As at the end of the financial year, the Group has interest rate swap agreements. See Note 35(a)(i) for further details pertaining to the notional amounts and fair value of the interest rate swap agreements for the Group. These fair value amounts are recognised as derivative assets and derivative liabilities.

The Group receives variable rates equal to Singapore Swap Offer Rate ("SOR"), Singapore Overnight Rate Average ("SORA"), United States Dollar Secured Overnight Financing Rate ("USD SOFR") and the United States Dollar London Inter-bank Offer Rate ("USD LIBOR") (2021: SOR, SORA and USD LIBOR) and pays fixed rates of between 0.06% and 3.62% (2021: 0.19% and 3.62%) on the notional amount. These interest rate swap agreements are held for hedging interest rate risk arising from variable rate borrowings, with interest rates ranging from SOR, SORA, USD SOFR and USD LIBOR. This amounts to 32% (2021: 30%) of the Group's total amount of borrowings excluding notional amounts of $nil (2021: $470,419,000) relating to highly probable future borrowings.

In 2021, there was a loss of $23,065,000 on hedge ineffectiveness in the Energy & Environment segment.

Sensitivity analysis for interest rate risk

If interest rates increase/decrease by 0.5% (2021: 0.5%) with all other variables held constant, the Group's profit before tax would have been lower/higher by $19,548,000 (2021: $17,560,000) as a result of higher/lower interest expense on floating rate loans.

(iv) Price risk

The Group hedges against fluctuations arising on the purchase of natural gas that affect cost. Exposure to price fluctuations is managed via fuel oil forward contracts, whereby the price of natural gas is indexed to benchmark fuel price indices, HSFO, Dated Brent, JKM and ICE Brent Crude. As at the end of the financial year, the Group has outstanding HSFO, Dated Brent, JKM and ICE Brent Crude forward contracts. See Note 35(a)(i) for further details pertaining to the notional amounts and fair value of the HSFO, Dated Brent, JKM and ICE Brent Crude forward contracts for the Group. These fair value amounts are recognised as derivative assets and derivative liabilities.

The Group hedges against fluctuations in electricity prices via its daily sales of electricity. Exposure to price fluctuations is managed via electricity futures contracts. As at the end of the financial year, the Group has outstanding electricity futures contracts. See Note 35(a)(i) for further details pertaining to the notional amounts and fair value of the electricity futures contracts. These fair value amounts are recognised as derivative assets and derivative liabilities.

The Group is exposed to equity securities price risk arising from equity investments classified as investments at fair value through profit or loss and investments at fair value through other comprehensive income. To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the Group.

Sensitivity analysis for price risk

If prices for HSFO, Dated Brent, JKM and ICE Brent Crude increase/decrease by 5% (2021: 5%) with all other variables held constant, the Group's hedging reserve in equity would have been higher/lower by $7,324,000 (2021: $25,601,000), $17,934,000 (2021: $338,000), $3,420,000 (2021: nil) and $3,829,000 (2021: nil) respectively as a result of fair value changes on cash flow hedges.

If prices for electricity futures contracts increase/decrease by 5% (2021: 5%) with all other variables held constant, the Group's hedging reserve in equity would have been lower/higher by $2,164,000 (2021: $16,623,000) as a result of fair value changes on cash flow hedges.

If prices for quoted investments increase/decrease by 5% (2021: 5%) with all other variables held constant, the Group's profit before tax would have been higher/lower by $1,765,000 (2021: $3,579,000) as a result of higher/lower fair value gains on investments at fair value through profit or loss, and the Group's fair value reserve in other comprehensive income would have been higher/lower by $27,296,000 (2021: $26,458,000) as a result of higher/lower fair value gains on investments at fair value through other comprehensive income.

The various sensitivity rates used in the sensitivity analysis for currency, interest rate and price risks represent rates generally used internally by management when assessing the various risks.

(v) Cash flow and fair value interest rate risk

The Group is exposed mainly to the SOR and the USD LIBOR. The greatest change will be amendments to the contractual terms of the SOR-referenced floating-rate loans and the associated swaps, the contractual terms of the USD LIBOR-referenced floating-rate loans and the associated swaps and the corresponding update of the relevant hedge designations. Amendments will also be made to the contractual terms of certain receivables that are IBOR-referenced. There is currently uncertainty around the timing and precise nature of these changes.

<u>Hedging relationships for which 'Phase 1' amendments apply</u>

The 'Phase 1' amendments provided temporary relief from applying specific hedge accounting requirements to hedging relationships directly impacted by IBOR reform. The temporary reliefs would end when the uncertainty arising from IBOR reform is no longer present.

The Group has ascertained that IBOR uncertainty is still present with respect to its cash flow hedge of S$171 million borrowing linked to USD LIBOR, because the hedging instrument and the hedged item have not yet started transitioning to SOFR. Discussions are still ongoing.

The following Phase 1 reliefs are applied to the cash flow hedges linked USD LIBOR:

- When considering the 'highly probable' requirement, the Group has assumed that the USD LIBOR interest rate on which the Group's respective hedged debts are based do not change as a result of IBOR reform;
- In assessing whether the hedge is expected to be highly effective on a forward-looking basis, the Group has assumed that the USD LIBOR interest rates, on which the cash flows of the hedged debts and interest rate swaps that hedges these debts are based, are not altered by the IBOR reform; and
- The Group has not recycled the cash flow hedge reserve relating to the period after the reforms are expected to take effect.

<u>Hedging relationships for which 'Phase 2' amendments apply</u>

The Group has judged that IBOR uncertainty is no longer present with respect to its cash flow hedge of S$1,965 million borrowings linked to SOR and USD LIBOR (including borrowings that had transitioned to alternative benchmark rates during the year), as both the hedging instrument and the hedged item have been amended or are pending amendments to the alternative benchmark rates with agreed adjustment spreads.

In the current year, the Group has applied the following hedge accounting reliefs provided by the Phase 2 amendments for its hedging relationships that have already transitioned from SOR to SORA:

- *Hedge designation*: When the Phase 1 amendments cease to apply, the Group has amended its hedge designation to reflect the following changes which are required by IBOR reform:
  - designating SORA and SOFR as a hedged risk;
  - the contractual benchmark rate of the hedged borrowings has been amended from SOR and USD LIBOR to SORA and SOFR respectively, plus an adjustment spread; and
  - the variable rate of the hedging interest rate swap has been amended from SOR and USD LIBOR to SORA and SOFR respectively, plus an adjustment spread.

  These amendments to the hedge documentation do not require the Group to discontinue its hedge relationships.

- *Amounts accumulated in the cash flow hedge reserve*: When the Group amended its hedge designation for changes to its SOR and USD LIBOR borrowings that is required by IBOR reform, the accumulated amount outstanding in the cash flow hedge reserve was deemed to be based on SORA and SOFR. The amount is reclassified to profit or loss in the same periods during which the hedged SORA and SOFR cash flows affect profit or loss.

(b) Credit Risk

Credit risk refers to the risk that debtors will default on their obligation to repay the amount owing to the Group. A substantial portion of the Group's revenue is on credit terms that are consistent with market practice. The Group adopts stringent procedures on extending credit terms to customers and on the monitoring of credit risk. The credit policy spells out clearly the guidelines on extending credit terms to customers, including monitoring the process and using related industry's practices as reference. This includes assessment and valuation of customers' credit reliability and periodic review of their financial status to determine the credit limits to be granted. Customers are also assessed based on their historical payment records. Where necessary, customers may also be requested to provide security or advance payment before services are rendered. The Group's policy does not permit non-secured credit risk to be significantly centralised in one customer or a group of customers.

The Group assesses on a forward-looking basis the expected credit losses ("ECLs") associated with its financial assets which are mainly debtors, amounts due from associated companies and joint ventures and bank balances, deposits and cash.

ECLs are probability-weighted estimates of credit losses. Credit losses are measured at the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset. At each balance sheet date, the Group assesses whether financial assets carried at amortised cost and at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. These events include probability of insolvency, significant financial difficulties of the debtor and default or significant delay in payments.

35. Financial risk management (continued)

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and includes forward-looking information.

The Group uses a provision matrix to measure the ECLs. In measuring the ECLs, assets are grouped based on shared credit risk characteristics and days past due. In calculating the expected credit loss rates, the Group considers historical loss rates for each category of customers and adjusts to reflect current and forward-looking macroeconomic factors affecting the ability of the customers to settle the receivables.

Trade receivables and contract assets are written off when there is no reasonable expectation of recovery, such as a debtor failing to engage in a repayment plan with the Group.

The Group's credit risk exposure in relation to debtors under SFRS(I) 9 as at 31 December 2022 and 2021 that have not been assessed on a contract-by-contract basis are set out in the provision matrix as follows:

		Trade receivables				
	Contract assets $'000	Current $'000	1 to 3 months $'000	3 to 6 months $'000	> 6 months $'000	Total $'000
2022						
Energy & Environment						
Expected loss rate	**-**	**0.5%**	**6.3%**	**17.9%**	**13.5%**	
Gross carrying amount	**-**	**347,020**	**33,957**	**2,617**	**12,470**	**396,064**
Loss allowance	**-**	**1,883**	**2,154**	**469**	**1,687**	**6,193**
Connectivity						
Expected loss rate	**2.2%**	**0.5%**	**2.4%**	**9.1%**	**19.9%**	
Gross carrying amount	**109,055**	**173,869**	**52,192**	**20,019**	**56,742**	**411,877**
Loss allowance	**2,402**	**834**	**1,239**	**1,815**	**11,294**	**17,584**
2021						
Energy & Environment						
Expected loss rate	-	0.5%	16.0%	8.7%	17.7%	
Gross carrying amount	-	371,999	10,442	2,862	13,669	398,972
Loss allowance	-	1,801	1,666	249	2,416	6,132
Connectivity						
Expected loss rate	1.7%	0.4%	2.7%	12.0%	35.5%	
Gross carrying amount	145,297	155,142	60,841	8,102	31,636	401,018
Loss allowance	2,402	684	1,664	970	11,245	16,965

For the remaining subsidiaries which transact with low volume of customers and customers are monitored individually for credit loss assessment, the receivables (including concession service receivable and contract assets) are assessed individually for lifetime expected credit losses at each reporting date. In calculating the expected credit loss, the Group uses a probability-weighted amount that is determined by evaluating a range of possible outcomes. The possible outcomes include an unbiased estimate of the possibility that a credit loss occurs and the possibility that no credit loss occurs even if the most likely outcome is no credit loss.

Individual customer will be evaluated periodically for its credit risk and the credit risk assessment is based on historical, current and forward-looking information such as:

- Historical financial and default rate of the customer
- Any publicly available information on the customer
- Any macroeconomic or geopolitical information relevant to the customer
- Any other objectively supportable information on the quality and abilities of the customer's management relevant for its performance

Urban Development
For investment properties, the Group manages credit risks arising from tenants defaulting on their rental by requiring the tenants to furnish cash deposits, and/or banker's guarantees. The Group also has a policy of regular review of debt collection and rental contracts are entered into with customers with an appropriate credit history.

In measuring the ECL, trade debtors and contract assets are grouped based on shared credit risk characteristics and days past due. The Group has therefore concluded that the expected loss rates for trade debtors are a reasonable approximation of the loss rates for the contract assets.

In calculating the ECL rates, the Group considers historical loss rates for each category of customers and adjusts to reflect current and forward-looking macroeconomic factors affecting the ability of the customers to settle the receivables.

Trade debtors and contract assets are written off when there is no reasonable expectation of recovery.

Debtors and amounts due from associated companies and joint ventures that are neither past due nor impaired are substantially companies with good collection track record with the Group or have strong financial capacity.

As at 31 December 2022 and 31 December 2021, there was no significant concentration of credit risks.

Asset Management
The Group minimises credit risk by dealing with companies with good payment track record and by placing cash balances with financial institutions.

In respect of credit exposure to the associated companies and joint ventures, the Group minimises credit risk through regular monitoring of the associated companies and joint ventures' financial standing.

As at 31 December 2022 and 2021, there are no significant financial assets that are past due and/or impaired.

(c) Liquidity Risk

Prudent liquidity risk management requires the Group to maintain sufficient cash and marketable securities, internally generated cash flows, and the availability of funding resources through an adequate amount of committed credit facilities. Group Treasury Department also maintains a mix of short-term money market borrowings and medium/long term loans to fund working capital requirements and capital expenditures/investments. Due to the dynamic nature of business, the Group maintains flexibility in funding by ensuring that ample working capital lines are available at any one time. As part of its liquidity management, the Group has built up adequate cash reserves and sufficient undrawn credit facilities to cover any short-term liquidity requirements so as to support its current operations including investing activities.

Information relating to the maturity profile of loans is given in Note 23. The following table details the liquidity analysis for derivative financial instruments and borrowings of the Group and the Company based on contractual undiscounted cash inflows/(outflows).

	Within one year $'000	Within one to two years $'000	Within two to five years $'000	After five years $'000
Group				
2022				
Gross-settled forward foreign exchange contracts				
- Receipts	2,239,200	340,320	1,989	-
- Payments	(2,245,274)	(348,948)	(1,979)	-
Gross-settled cross currency swaps				
- Receipts	40,823	42,137	54,162	1,511
- Payments	(34,464)	(31,116)	(44,748)	(1,260)
Net-settled interest rate swaps				
- Receipts	96,204	65,152	55,964	-
- Payments	(1,808)	(1,879)	(4,493)	(3,208)
Net-settled HSFO forward contracts				
- Receipts	23,578	319	-	-
- Payments	(40,480)	-	-	-
Net-settled Dated Brent forward contracts				
- Receipts	19,414	1,022	-	-
- Payments	(3,196)	(3,573)	(204)	-
Net-settled JKM forward contracts				
- Receipts	-	-	-	-
- Payments	(51,074)	(4,766)	-	-
Net-settled ICE Brent Crude forward				
- Receipts	10,707	2,507	-	-
- Payments	(159)	-	-	-
Net-settled electricity futures contracts				
- Receipts	1,855	143	-	-
- Payments	(17,090)	-	-	-
Borrowings	(4,227,532)	(2,084,210)	(4,014,400)	(1,496,071)
Financial guarantees	(747,134)	-	-	-

35. Financial risk management (continued)

	Within one year $'000	Within one to two years $'000	Within two to five years $'000	After five years $'000
2021				
Gross-settled forward foreign exchange contracts				
- Receipts	4,734,239	309,972	318,068	-
- Payments	(4,683,873)	(306,151)	(311,080)	-
Gross-settled cross currency swaps				
- Receipts	16,035	17,960	26,006	959
- Payments	(26,676)	(25,890)	(31,473)	(2,345)
Net-settled interest rate swaps				
- Receipts	3,248	10,945	25,618	220
- Payments	(37,930)	(12,300)	(18,119)	(22,517)
Net-settled HSFO forward contracts				
- Receipts	98,110	14,978	281	-
- Payments	(1,424)	(286)	-	-
Net-settled Dated Brent forward contracts				
- Receipts	1	23	-	-
- Payments	(101)	(77)	(46)	-
Net-settled electricity futures contracts				
- Receipts	27	-	-	-
- Payments	(213,941)	(23,822)	-	-
Borrowings	(4,840,394)	(1,800,142)	(4,182,515)	(1,575,900)
Financial guarantees	(958,085)	-	-	-
Company				
2022				
Gross-settled forward foreign exchange contracts				
- Receipts	**1,284,472**	**340,320**	**1,989**	**-**
- Payments	**(1,291,652)**	**(348,948)**	**(1,979)**	**-**
Gross-settled cross currency swaps				
- Receipts	**40,823**	**42,137**	**54,162**	**1,511**
- Payments	**(34,464)**	**(31,116)**	**(44,748)**	**(1,260)**
Net-settled interest rate swaps				
- Receipts	**75,884**	**52,798**	**43,665**	**-**
- Payments	**(1,344)**	**(1,728)**	**(2,962)**	**-**
Borrowings	**(2,973,264)**	**(987,162)**	**(2,778,095)**	**(843,721)**
Financial guarantees	**(462,579)**	**-**	**-**	**-**
2021				
Gross-settled forward foreign exchange contracts				
- Receipts	4,330,930	309,972	318,068	-
- Payments	(4,310,546)	(306,151)	(311,080)	-
Gross-settled cross currency swaps				
- Receipts	16,035	17,960	26,006	959
- Payments	(26,676)	(25,890)	(31,473)	(2,345)
Net-settled interest rate swaps				
- Receipts	2,238	10,290	22,338	220
- Payments	(24,908)	(8,305)	(10,703)	-
Borrowings	(3,418,745)	(968,075)	(2,618,595)	(966,128)
Financial guarantees	(655,005)	-	-	-

In addition to the above, creditors (Note 21) of the Group and the Company have a maturity profile of within one year from the balance sheet date.

(d) **Capital Risk**

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern and to maintain an optimal capital structure so as to maximise shareholder value. In order to maintain or achieve an optimal capital structure, the Group may adjust the amount of dividend payment, return capital to shareholders, issue new shares, obtain new borrowings or sell assets to reduce borrowings. The Group's current strategy remains unchanged from the previous financial year. The Group and the Company are in compliance with externally imposed capital undertakings for the financial year ended 31 December 2022. Externally imposed capital undertakings are mainly debt covenants included in certain loans of the Group and the Company requiring the Group or certain subsidiaries of the Company to maintain net gearing to total equity not exceeding ratios ranging from 2.00 to 3.00 times.

Management monitors capital risk based on the Group's net gearing. Net gearing is calculated as net debt divided by total equity. Net debt is calculated as total term loans (Note 23) and total lease liabilities (Note 9) less bank balances, deposits & cash (Note 20).

	Group	
	2022 $'000	2021 $'000
Net debt	**9,237,629**	8,400,306
Total equity	**11,913,340**	12,441,361
Net gearing ratio	**0.78x**	0.68x

(e) **Fair Value of Financial Instruments and Investment Properties**

The Group classifies fair value measurement using a fair value hierarchy that reflects the significance of the inputs used in making the measurement. The fair value hierarchy has the following levels:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
- Level 3 - Inputs for the asset or liability that are not based on observable market data (unobservable inputs). Fair value is determined by reference to the net tangible assets of the investments.

The following table presents the assets and liabilities measured at fair value.

	Level 1 $'000	**Level 2 $'000**	**Level 3 $'000**	**Total $'000**
Group				
2022				
Financial assets				
Derivative financial instruments				
- from continuing operations	-	273,051	-	273,051
- from discontinued operations	-	5,143	-	5,143
Call option	-	-	192,522	192,522
Investments				
- Investments at fair value through other comprehensive income				
- from continuing operations	494,706	1,409	277,279	773,394
- from discontinued operations	-	-	26,603	26,603
- Investments at fair value through profit or loss				
- from continuing operations	34,618	-	674,707	709,325
- from discontinued operations	-	16,745	55,350	72,095
Short term investments				
- Investments at fair value through other comprehensive income				
- from continuing operations	48,097	-	-	48,097
- from discontinued operations	3,118	-	-	3,118
- Investments at fair value through profit or loss	685	-	-	685
	581,224	296,348	1,226,461	2,104,033
Financial liabilities				
Derivative financial instruments				
- from continuing operations	-	256,204	-	256,204
- from discontinued operations	-	13,639	-	13,639
	-	269,843	-	269,843
Non-financial assets				
Investment Properties				
- Commercial and hospitality, completed	-	-	1,349,265	1,349,265
- Commercial, under construction	-	-	2,933,828	2,933,828
- Associates at fair value through profit or loss	-	-	246,677	246,677
	-	-	4,529,770	4,529,770

35. Financial risk management (continued)

	Level 1 $'000	Level 2 $'000	Level 3 $'000	Total $'000
Group				
2021				
Financial assets				
Derivative financial instruments	-	186,294	-	186,294
Call option	-	-	171,520	171,520
Investments				
- Investments at fair value through other comprehensive income	502,310	-	226,052	728,362
- Investments at fair value through profit or loss	71,314	20,791	627,197	719,302
Short term investments				
- Investments at fair value through other comprehensive income	26,834	-	-	26,834
- Investments at fair value through profit or loss	269	-	-	269
	600,727	207,085	1,024,769	1,832,581
Financial liabilities				
Derivative financial instruments	-	348,112	-	348,112
Non-financial assets				
Investment Properties				
- Commercial and residential, completed	-	-	1,495,780	1,495,780
- Commercial, under construction	-	-	2,760,648	2,760,648
- Associates at fair value through profit or loss	-	-	142,238	142,238
	-	-	4,398,666	4,398,666
Company				
2022				
Financial assets				
Derivative financial instruments	**-**	**173,642**	**-**	**173,642**
Investments				
- Investments at fair value through other comprehensive income	**-**	**-**	**19,430**	**19,430**
	-	**173,642**	**19,430**	**193,072**
Financial liabilities				
Derivative financial instruments	**-**	**-**	**140,354**	**140,354**
2021				
Financial assets				
Derivative financial instruments	-	67,499	-	67,499
Investments				
- Investments at fair value through other comprehensive income	-	-	24,100	24,100
	-	67,499	24,100	91,599
Financial liabilities				
Derivative financial instruments	-	-	102,061	102,061

In 2021, the fair value measurement of certain investments amounting to $82,443,000 were transferred from Level 2 to Level 3 due to use of inputs not based on market observable data in the valuation techniques.

The following table presents the reconciliation of financial instruments measured at fair value based on significant unobservable inputs (Level 3).

	Group		Company	
	2022 **$'000**	2021 $'000	**2022** **$'000**	2021 $'000
At 1 January	**1,024,769**	712,761	**24,100**	22,196
Purchases	**131,668**	41,002	**-**	-
Sales	**(11,374)**	(47,625)	**-**	-
Fair value (loss)/gain recognised in other comprehensive income				
- from continuing operations	**(29,785)**	(100,790)	**(4,670)**	1,904
- from discontinued operations	**(488)**	3,571	**-**	-
Fair value gain recognised in profit or loss				
- from continuing operations	**113,379**	316,867	**-**	-
- from discontinued operations	**28,043**	-	**-**	-
Reclassification				
- Disposal group and assets classified as held for sale	**(82,649)**	-	**-**	-
- Associates/Joint Ventures	**(22,671)**	14,139	**-**	-
- Transfer to Level 3	**-**	82,443	**-**	-
- Others	**-**	235	**-**	-
Exchange differences	**(4,975)**	2,399	**-**	-
Distribution	**-**	(193)	**-**	-
Return on capital	**-**	(40)	**-**	-
At 31 December	**1,145,917**	1,024,769	**19,430**	24,100

The following table presents the reconciliation of investment properties measured at fair value based on significant unobservable inputs (Level 3).

	Group	
	2022 **$'000**	2021 $'000
At 1 January	**4,256,428**	3,674,075
Development expenditure	**216,799**	229,581
Fair value gain	**131,711**	238,458
Disposal	**(41,204)**	-
Reclassification		
- Stocks (Note 15)	**-**	3,544
Exchange differences	**(280,641)**	110,770
At 31 December	**4,283,093**	4,256,428

The fair value of financial instruments categorised under Level 1 of the fair value hierarchy is based on published market bid prices at the balance sheet date.

The fair value of financial instruments categorised under Level 2 of the fair value hierarchy are fair valued under valuation techniques with market observable inputs. These include forward pricing and swap models utilising present value calculations using inputs such as observable foreign exchange rates (forward and spot rates), interest rate curves and forward rate curves and discount rates that reflects the credit risks of various counterparties.

35. Financial risk management (continued)

The following table presents the valuation techniques and key inputs that were used to determine the fair value of financial instruments and investment properties categorised under Level 3 of the fair value hierarchy.

Description	Fair value as at 31 December 2022 $'000	Valuation Techniques	Unobservable Inputs	Range of unobservable Inputs
Investments				
- from continuing operations	953,395	Net asset value, discounted cash flow and binomial option pricing	Net asset value*	Not applicable
			Discount rate	15.71% to 20.00%
			Growth rate	1.10% to 4.32%
			Discount for lack of control	15.00% - 23.30%
- from discontinued operations	81,953	Net asset value and discounted cash flow	Net asset value*	Not applicable
			Discount rate	9.00% - 19.00%
Call option	192,522	Discounted cash flow method and investment method	Transacted price of comparable properties (psf)	$1,586 - $3,617
			Capitalisation rate	3.40%
Associates at fair value through profit or loss	246,677	Net asset value	Net asset value	Not applicable
Investment properties				
- Commercial, completed	1,349,265	Investment method, discounted cash flow method and/or direct comparison method;	Discount rate	7.25% to 14.50%
			Capitalisation rate	4.25% to 10.00%
		Income capitalisation method	Net initial yield	5.70%
			Transacted price of comparable land plots (psm)	$3,974 to $5,610
			Transacted price of comparable properties (psf)	$239 to $1,304
- Commercial, under construction	2,933,828	Direct comparison method, discounted cash flow method, and/or residual value method	Discount rate	13.00% to 17.00%
			Capitalisation rate	4.00% to 10.00%
			Transacted price of comparable land plots (psm)	$6,569 to $9,163
			Transacted price of comparable properties (psf)	$2,376 to $3,617
			Gross development value ($'million)	$216 to $1,949

* *Fair value of unquoted equity instruments is determined by reference to the underlying assets value of the investee companies, which comprise mainly investment properties stated at fair value or assets measured using valuation techniques that take into account key inputs such as revenue multiples, long term growth rate and discount rate (see further details in Note 2.28(b)(ix)).*

Description	Fair value as at 31 December 2021 $'000	Valuation Techniques	Unobservable Inputs	Range of unobservable Inputs
Investments	853,249	Net asset value, discounted cash flow and binomial option pricing	Net asset value*	Not applicable
			Discount rate	9.00% - 20.00%
			Growth rate	4.26%
			Discount for lack of control	15.00% - 23.30%
Call option	171,520	Discounted cash flow method and investment method	Transacted price of comparable properties (psf)	$1,586 - $3,520
			Capitalisation rate	3.50%
Associates at fair value through profit or loss	142,238	Net asset value	Net asset value	Not applicable
Investment properties				
- Commercial and residential, completed	1,495,780	Investment method, discounted cash flow method and/or direct comparison method;	Discount rate	9.50% to 14.50%
			Capitalisation rate	4.25% to 10.50%
		Income capitalisation method	Net initial yield	6.45%
			Transacted price of comparable land plots (psm)	$4,690 to $7,504
			Transacted price of comparable properties (psf)	$266 to $3,004
			Terminal capitalisation rate	7.75%
- Commercial, under construction	2,760,648	Direct comparison method, discounted cash flow method, and/or residual value method	Discount rate	12.50% to 17.00%
			Capitalisation rate	4.00% to 10.00%
			Transacted price of comparable land plots (psm)	$7,129 to $9,192
			Transacted price of comparable properties (psf)	$2,468 to $3,171
			Gross development value ($'million)	$239 to $2,099

* *Fair value of unquoted equity instruments is determined by reference to the underlying assets value of the investee companies, which comprise mainly investment properties stated at fair value or assets measured using valuation techniques that take into account key inputs such as revenue multiples, long term growth rate and discount rate (see further details in Note 2.28(b)(ix)).*

The financial instruments and investment properties categorised under Level 3 of the fair value hierarchy are generally sensitive to the various unobservable inputs tabled above. A significant movement of each input would result in significant change to the fair value of the respective asset/liability.

The total fair value on investments of $1,035,348,000 as at 31 December 2022 comprises $753,350,000 which are valued based on net asset value. A reasonably possible alternative assumption is when the net asset value of investments increase/decrease by 5%, which would lead to a $37,668,000 increase/decrease in fair valuation.

Valuation process of investment properties is described in Note 8.

36. Segment analysis

The Group is organised into business units based on their products and services, and has five main segments as follows:

(i) Energy & Environment
The Energy & Environment segment is focused on business areas relating to the safe and efficient harvesting of energy sources, serving the offshore & marine industry with an array of vessel solutions and services, renewables, and providing cities with power, as well as solutions for waste and water & wastewater treatment. The segment comprises two reportable operating segments, being Offshore & Marine and Infrastructure & Others.

Offshore & Marine - Principal activities include offshore production facilities and drilling rig design, construction, fabrication and repair, ship conversions and repair and specialised shipbuilding. The operating segment has operations in Brazil, China, Singapore, the United States and other countries.

On 27 April 2022, Keppel Corporation Limited ("the Company") and Sembcorp Marine Ltd ("Sembcorp Marine") entered into definitive agreements for the proposed combination of Keppel Offshore & Marine Ltd ("Keppel O&M") and Sembcorp Marine. Concurrent with the proposed combination, the Company has entered into a definitive agreement with Baluran Limited and Kyanite Investment Holdings Pte Ltd, for the sale of Keppel O&M's legacy rigs and associated receivables to a new and separate entity ("Asset Co Transfer").

On 27 October 2022, the structure and terms of the proposed combination have been amended such that, 1) the merger of Keppel O&M and Sembcorp Marine will be effected by way of the acquisition by Sembcorp Marine of all the Keppel O&M Shares held by the Company (the "KOM Share Transfer") and 2) the completion of the Asset Co Transfer will proceed regardless of whether the KOM Share Transfer takes place.

In accordance with SFRS(I) 5 *Non-current Assets Held for Sale and Discontinued Operations*, the performance of Keppel O&M, as a separate reportable operating segment, excluding certain out-of-scope assets, are presented as discontinued operations for the period, with comparative information re-presented accordingly. Refer to Note 37 for further details.

Infrastructure & Others - Principal activities include power generation, renewables, environmental engineering and infrastructure operation and maintenance. The operating segment has operations in China, Singapore, Switzerland, the United Kingdom, and other countries.

(ii) Urban Development
Principal activities include property development and investment, as well as master development. The segment has operations in China, India, Indonesia, Singapore, Vietnam and other countries.

(iii) Connectivity
Principal activities include the provision of telecommunications services, retail sales of telecommunications equipment and accessories, development and operation of data centres and provision of logistics solutions. The segment has operations in China, Singapore and other countries.

(iv) Asset Management
Principal activities include management of private funds and listed real estate investment and business trusts. The segment operates mainly in Singapore.

(v) Corporate & Others
The Corporate & Others segment consists mainly of treasury operations, research & development, investment holdings and provision of management and other support services.

Management monitors the results of each of the above main segments for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on net profit or loss. Information regarding the Group's reportable operating segments is presented in the following table.

	Energy & Environment $'000	Urban Development $'000	Connectivity $'000	Asset Management $'000	Corporate & Others $'000	Elimination $'000	Total $'000
2022							
Revenue							
External sales	4,229,331	903,544	1,291,273	195,092	478	-	6,619,718
Inter-segment sales	34,841	526	13,135	13,639	87,918	(150,059)	-
Total	4,264,172	904,070	1,304,408	208,731	88,396	(150,059)	6,619,718
Segment Results							
Operating profit	86,044	288,166	62,057	91,014	27,196	10,730	565,207
Investment income	-	1,536	273	43,218	3,514	-	48,541
Interest income	65,705	36,215	6,592	760	423,959	(441,883)	91,348
Interest expenses	(56,547)	(66,563)	(14,709)	(36,802)	(402,719)	431,153	(146,187)
Share of results of associated companies and joint ventures	119,257	158,809	15,794	242,119	-	-	535,979
Profit before tax	214,459	418,163	70,007	340,309	51,950	-	1,094,888
Taxation	(44,306)	(146,447)	(23,134)	(27,211)	(4,051)	-	(245,149)
Profit from continuing operations for year	170,153	271,716	46,873	313,098	47,899	-	849,739
Attributable to:							
Shareholders of Company	172,549	281,762	37,236	310,922	36,490	-	838,959
Perpetual securities holders	-	-	-	-	11,600	-	11,600
Non-controlling interests	(2,396)	(10,046)	9,637	2,176	(191)	-	(820)
	170,153	271,716	46,873	313,098	47,899	-	849,739
Profit from discontinued operations, net of tax and NCI							87,658
Profit for the year attributable to shareholders of the Company							926,617
External revenue from contracts with customers							
- At a point in time	21,197	680,261	393,207	43,805	-	-	1,138,470
- Over time	4,208,134	153,245	894,600	151,287	475	-	5,407,741
	4,229,331	833,506	1,287,807	195,092	475	-	6,546,211
Other sources of revenue	-	70,038	3,466	-	3	-	73,507
Total	4,229,331	903,544	1,291,273	195,092	478	-	6,619,718
Other Information							
Segment assets*	11,161,774	11,978,928	3,431,961	4,291,601	13,044,000	(12,843,287)	31,064,977
Segment liabilities*	11,350,215	6,392,475	2,738,442	1,797,304	9,716,488	(12,843,287)	19,151,637
Net assets*	(188,441)	5,586,453	693,519	2,494,297	3,327,512	-	11,913,340

* *inclusive of disposal group classified as held for sale*

	Energy & Environment $'000	Urban Development $'000	Connectivity $'000	Asset Management $'000	Corporate & Others $'000	Elimination $'000	Total $'000
Investment in associated companies and joint ventures	1,119,697	2,250,570	100,684	3,320,911	-	-	6,791,862
Additions to non-current assets	639,425	344,047	236,983	236,830	1,117	-	1,458,402
Depreciation and amortisation	32,982	31,080	124,760	2,718	15,018	-	206,558
Impairment loss on non-financial assets	7,052	107	1,953	-	-	-	9,112
Allowance/(write-back) for expected credit loss and bad debt written-off	23,683	(776)	10,917	-	186	-	34,010

Geographical information

	Singapore $'000	China/ Hong Kong $'000	Brazil $'000	Other Far East & ASEAN countries $'000	Other countries $'000	Elimination $'000	Total $'000
External sales	5,465,913	916,228	-	172,458	65,119	-	6,619,718
Non-current assets	8,192,941	3,503,743	-	1,695,069	465,765	-	13,857,518

Other than Singapore and China, no single country accounted for 10% or more of the Group's revenue for the year ended 31 December 2022.

Information about a major customer

Revenue of $2,045,861,000 is derived from a single external customer and is attributable to the Energy & Environment segment for the year ended 31 December 2022.

Note: Pricing of inter-segment goods and services is at fair market value.

36. Segment analysis (continued)

	Energy & Environment $'000	Urban Development $'000	Connectivity $'000	Asset Management $'000	Corporate & Others $'000	Elimination $'000	Total $'000
2021#							
Revenue							
External sales	3,560,370	1,628,768	1,260,152	162,046	-	-	6,611,336
Inter-segment sales	28,127	3,789	6,046	9,868	74,072	(121,902)	–
Total	3,588,497	1,632,557	1,266,198	171,914	74,072	(121,902)	6,611,336
Segment Results							
Operating profit/(loss)	(290,695)	992,963	86,488	112,880	222,950	4,737	1,129,323
Investment income	-	1,512	270	41,632	61,447	–	104,861
Interest income	60,391	36,797	304	147	366,147	(375,480)	88,306
Interest expenses	(106,732)	(52,342)	(19,094)	(30,752)	(331,925)	370,743	(170,102)
Share of results of associated companies and joint ventures	144,450	93,170	18,528	202,617	-	-	458,765
Profit/(loss) before tax	(192,586)	1,072,100	86,496	326,524	318,619	-	1,611,153
Taxation	3,767	(331,263)	(18,567)	(26,188)	(2,938)	-	(375,189)
Profit/(loss) from continuing operations for year	(188,819)	740,837	67,929	300,336	315,681	-	1,235,964
Attributable to:							
Shareholders of Company	(189,028)	762,915	63,953	301,296	308,332	-	1,247,468
Perpetual securities holders	-	-	-	-	3,401	-	3,401
Non-controlling interests	209	(22,078)	3,976	(960)	3,948	-	(14,905)
	(188,819)	740,837	67,929	300,336	315,681	-	1,235,964
Loss from discontinued operations, net of tax and NCI							(224,817)
Profit for the year attributable to shareholders of the Company							1,022,651
External revenue from contracts with customers							
- At a point in time	12,324	1,376,396	423,065	23,936	-	-	1,835,721
- Over time	3,548,046	181,183	833,360	138,110	-	-	4,700,699
	3,560,370	1,557,579	1,256,425	162,046	-	-	6,536,420
Other sources of revenue	-	71,189	3,727	-	-	-	74,916
Total	3,560,370	1,628,768	1,260,152	162,046	-	-	6,611,336
Other Information							
Segment assets*	11,481,452	13,954,820	3,606,910	3,989,870	12,205,731	(12,915,856)	32,322,927
Segment liabilities*	11,929,685	6,955,468	2,525,065	1,708,088	9,679,116	(12,915,856)	19,881,566
Net assets*	(448,233)	6,999,352	1,081,845	2,281,782	2,526,615	-	12,441,361

* *inclusive of disposal group classified as held for sale*

	Energy & Environment $'000	Urban Development $'000	Connectivity $'000	Asset Management $'000	Corporate & Others $'000	Elimination $'000	Total $'000
Investment in associated companies and joint ventures	626,848	2,281,122	151,162	2,991,126	-	-	6,050,258
Additions to non-current assets	62,998	274,447	349,995	34,098	6,698	-	728,236
Depreciation and amortisation	30,406	42,564	201,430	2,796	13,627	-	290,823
Impairment loss on non-financial assets	58,294	53,051	1,586	-	-	-	112,931
Allowance for expected credit loss and bad debt written-off	117,236	1,346	11,781	-	(132)	-	130,231
Loss on a financial guarantee on a loan granted to an associated company	146,024	-	-	-	-	-	146,024

Geographical information

	Singapore $'000	China/ Hong Kong $'000	Brazil $'000	Other Far East & ASEAN countries $'000	Other countries $'000	Elimination $'000	Total $'000
External sales#	4,856,690	1,526,698	-	159,197	68,751	-	6,611,336
Non-current assets	7,928,820	3,922,600	160,951	1,803,975	653,202	-	14,469,548

Other than Singapore and China, no single country accounted for 10% or more of the Group's revenue for the year ended 31 December 2021.

Information about a major customer

Revenue of $1,600,705,000 is derived from a single external customer and is attributable to the Energy & Environment segment for the financial year ended 31 December 2021.

Note: Pricing of inter-segment goods and services is at fair market value.

Comparative information has been re-presented due to a discontinued operation (Note 37).

37. Discontinued operations and disposal group and assets classified as held for sale and liabilities directly associated with disposal group and assets classified as held for sale

(i) Discontinued operations and disposal group held for sale and liabilities directly associated with disposal group classified as held for sale

Keppel Offshore & Marine Ltd ("Keppel O&M")

On 27 April 2022, the Company and Sembcorp Marine Ltd ("Sembcorp Marine") entered into definitive agreements for the proposed combination of Keppel Offshore & Marine Ltd ("Keppel O&M") and Sembcorp Marine (the "Proposed Combination"). The Proposed Combination involves the establishment of a new holding company (the "Combined Entity") which will combine the businesses of Keppel O&M and Sembcorp Marine via separate schemes of arrangement.

Concurrent with the Proposed Combination, the Company has entered into a definitive agreement with Baluran Limited ("Baluran") and Kyanite Investment Holdings Pte Ltd ("Kyanite"), for the sale of Keppel O&M's legacy rigs and associated receivables to a new and separate entity, Rigco Holding Pte Ltd (the "Asset Co Transaction").

On 27 October 2022, the structure and terms of the Proposed Combination have been amended such that, 1) the merger of Keppel O&M and Sembcorp Marine will be effected by way of the acquisition by Sembcorp Marine (and not the Combined Entity) of all the Keppel O&M Shares held by the Company (the "KOM Share Transfer") in consideration for the issuance by Sembcorp Marine of such number of new ordinary shares in the capital of Sembcorp Marine ("SCM Shares") representing 54% of the total number of SCM Shares ("Consideration Shares") and 2) the completion of the Asset Co Transfer will proceed regardless of whether the Keppel O&M Share Transfer takes place. Of which, the Company will distribute 49% of the total number of SCM Shares to its shareholders and remaining 5% of SCM shares (the "Retained Consideration Shares") transfer to a segregated account ("Proposed Distribution"). Post acquisition, Sembcorp Marine will be the "Combined Entity" owning a combination of its current business and KOM.

Accordingly, the assets and liabilities related to Keppel O&M for the Proposed Combination, excluding certain out-of-scope assets, had been presented in the balance sheet as "Disposal group classified as held for sale" and "Liabilities directly associated with disposal group classified as held for sale", and its results were presented separately on the consolidated statement of comprehensive income as "Discontinued operations" for the financial year ended 31 December 2022, with comparative information re-presented accordingly. The Group has also ceased the depreciation of $71,185,000 for the relevant assets classified under disposal group held for sale for the period since 27 April 2022. The disposal group was previously presented under the "Energy & Environment" reportable segment of the Group (Note 36).

On 8 December 2022, the resolutions relating to 1) the Proposed Transaction involving the Asset Co Transaction and the Proposed Combination of Keppel O&M and Sembcorp Marine which constitutes a major transaction and an interested person transaction, and 2) the Proposed Distribution, were duly passed at the extraordinary general meeting of the Company.

(a) The results of the discontinued operations are as follows:

	2022 $'000	2021 $'000
Revenue	**2,799,418**	2,013,377
Expenses*	**(2,683,140)**	(2,289,534)
Profit/(Loss) before tax from discontinued operations	**116,278**	(276,157)
Taxation	**(33,212)**	50,205
Non-controlling interests	**4,592**	1,135
Profit/(Loss) from discontinued operations, net of tax and non-controlling interests	**87,658**	(224,817)

* In accordance with SFRS(I) 5 *Non-current Assets Held for Sale and Discontinued Operations*, following the classification as disposal group classified as held for sale, the Group has ceased depreciation of $71,185,000 for the relevant assets classified under disposal group held for sale for the period since 27 April 2022. The 2022 results also include a partial writeback of $292,838,000 (before reversal of deferred tax credit of $38,919,000 recognised in taxation) impairment made in 2020 for certain legacy rig assets (Note 2.28(b)(i)(c)) and a gain from divestment of Keppel Smit Towage Pte Limited and Maju Maritime Pte Ltd of $74,495,000.

(b) The cash flows attributable to the discontinued operations are as follows:

	2022 $'000	2021 $'000
Operating cash flow	**115,472**	(522,898)
Investing cash flow	**92,204**	3,070
Financing cash flow	**260,362**	419,417
Net cash inflows / (outflows)	**468,038**	(100,411)

37. Discontinued operations and disposal group and assets classified as held for sale and liabilities directly associated with disposal group and assets classified as held for sale (continued)

(ii) Assets classified as held for sale and liabilities directly associated with assets classified as held for sale

(a) Marina East Water Pte. Ltd. ("MEW")
On 30 June 2022, Keppel Infrastructure Holdings Limited ("Keppel Infrastructure"), a wholly-owned subsidiary of the Company, and Keppel Infrastructure Fund Management Pte Ltd ("KIFM"), as Trustee-Manager of Keppel Infrastructure Trust ("KIT"), have signed a non-binding term sheet with the intention to enter into definitive agreements with respect to the sale and purchase of the Group's interest in MEW ("Proposed Transaction"). The Proposed Transaction is subject to customary closing conditions including approvals by shareholders and PUB, as well as the receipt of applicable regulatory approvals. Post the proposed transaction, MEW will be jointly-controlled by Keppel Infrastructure and KIT, with KIT receiving 100% of the economic interest.

In accordance to SFRS(I) 5 *Non-current Assets Held for Sale and Discontinued Operations*, the assets and liabilities of MEW have been presented separately as "assets classified as held for sale" and "liabilities directly associated with assets classified as held for sale" in the condensed consolidated balance sheet as at 31 December 2022.

	Group 31.12.2022		
	Disposal group $'000	**Assets classified as held for sale $'000**	**Total $'000**
Disposal group and assets classified as held for sale			
Fixed assets	2,629,084	-	2,629,084
Intangibles	11,739	-	11,739
Right-of-use assets	288,940	-	288,940
Associated companies and joint ventures	204,041	-	204,041
Deferred tax assets	68,989	-	68,989
Other non-current assets	395,020	334,545	729,565
Investments	101,816	-	101,816
Contract assets	2,435,618	-	2,435,618
Stocks	1,823,190	-	1,823,190
Debtors and other assets	822,058	8,232	830,290
Bank balances, deposits & cash	381,179	25,325	406,504
	9,161,674	**368,102**	**9,529,776**
Liabilities directly associated with disposal group and assets classified as held for sale			
Creditors and other liabilities	2,178,848	5,349	2,184,197
Provisions	112,559	-	112,559
Contract liabilities	774,157	-	774,157
Term loans	455,864	301,847	757,711
Lease liabilities	314,711	-	314,711
Taxation	25,137	1,106	26,243
Deferred tax liabilities	36,021	-	36,021
Other non-current liabilities	18,404	-	18,404
	3,915,701	**308,302**	**4,224,003**

38. New accounting standards

At the date of authorisation of these financial statements, the following new SFRS(I) and amendments to SFRS(I)s that are relevant to the Group and the Company were issued but not effective:

- Amendments to SFRS(I) 1-1 *Presentation of Financial Statements - Classification of Liabilities as Current or Non-current* (effective for annual periods beginning on or after 1 January 2024)

  The narrow-scope amendments to SFRS(I) 1-1 *Presentation of Financial Statements* clarify that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Classification is unaffected by the expectations of the entity or events after the reporting date (e.g. the receipt of a waiver or a breach of covenant). The amendments also clarify what SFRS(I) 1-1 means when it refers to the 'settlement' of a liability.

  The amendments could affect the classification of liabilities, particularly for entities that previously considered management's intentions to determine classification and for some liabilities that can be converted into equity.

- Amendments to SFRS(I) 1-12 *Income Taxes: Deferred Tax related to Assets and Liabilties arising from a Single Transaction* (effective for annual periods beginning on or after 1 January 2023)

The amendments to SFRS(I) 1-12 *Income Taxes* require companies to recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. They will typically apply to transactions such as leases of lessees and decommissioning obligations, and will require the recognition of additional deferred tax assets and liabilities.

The amendment should be applied to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, entities should recognise deferred tax assets (to the extent that it is probable that they can be utilised) and deferred tax liabilities at the beginning of the earliest comparative period for all deductible and taxable temporary differences associated with:

- right-of-use assets and lease liabilities, and
- decommissioning, restoration and similar liabilities, and the corresponding amounts recognised as part of the cost of the related assets.

The cumulative effect of recognising these adjustments is recognised in retained earnings, or another component of equity, as appropriate.

SFRS(I) 1-12 did not previously address how to account for the tax effects of on-balance sheet leases and similar transactions and various approaches were considered acceptable. Some entities may have already accounted for such transactions consistent with the new requirements. These entities will not be affected by the amendments.

- SFRS(I) 17 *Insurance Contracts* (effective for annual periods beginning on or after 1 January 2023)

  SFRS(I) 17, covering recognition and measurement, presentation and disclosure, will replace SFRS(I) 4 *Insurance Contracts* and apply to all types of insurance contracts (i.e., life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply. The overall objective of SFRS(I) 17 is to provide an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast to the requirements in SFRS(I) 4, which are largely based on grandfathering previous local accounting policies. The core of SFRS(I) 17 is the general model, supplemented by a specific adaptation for contracts with direct participation features (the variable fee approach) and a simplified approach (the premium allocation approach) mainly for short-duration contracts.

The management anticipates that the adoption of the above SFRS(I) and amendments to SFRS(I)s in future periods will not have a material impact on the financial statements of the Group and of the Company in the period of their initial adoption.

39. Subsequent events

(i) Subsequent to 31 December 2022, the Group divested its shipyard at 55 Gul Road, Singapore, including fixed infrastructure and equipment thereon through Keppel FELS Limited, wholly owned subsidiary of the Company, for a cash consideration of $95 million. The book value and net tangible value of the yard as at 31 December 2022 was $57 million. The financial effect of this disposal has been recognised within the discontinued operations in January 2023.

(ii) The Proposed Combination, as set out in Note 37(i), was approved on 16 February 2023 by the shareholders of Sembcorp Marine.

Based on the carrying values of Keppel O&M's legacy rigs and associated receivables, as described in Note 37(i), the Asset Co Transaction was completed on 27 February 2023 for a consideration of approximately $4,372 million satisfied in the following manner:

(a) issuance of 499,000 new ordinary shares in the capital of Rigco Holding Pte Ltd at the issue price of $1.00 per share;

(b) issuance of $120 million 10.0% perpetual securities by Rigco Holding Pte Ltd; and

(c) issuance of vendor notes of 4% per annum for a maximum tenure of 12 years in the same aggregate principal amount by Rigco Holding Pte Ltd of approximately $4,251 million.

No gain or loss was recognised in the profit or loss on the date of completion from the Asset Co Transaction.

The Proposed Combination was completed on 28 February 2023 and the Company has received:

I. 36,848,072,918 Consideration Shares amounting to approximately $4,237 million. Of which, 33,436,214,314 Consideration Shares (representing 49% of the enlarged capital of Sembcorp Marine) amounting to approximately $3,845 million has been distributed as dividend-in-specie to the Company's shareholders and the remaining 3,411,858,604 Consideration Shares (representing 5% of the enlarged capital of Sembcorp Marine) amounting to approximately $392 million, as Retained Consideration Shares placed into a segregated account; and

II. a Cash Component of $500,000,000 from Keppel O&M in settlement of interests and redemption amount for a partial redemption of intercompany perpetual securities.

Arising from the Proposed Combination, based on the value of assets and liabilities of Keppel O&M (as Disposal Group) for the Proposed Combination as of 28 February 2023, the gain on disposal recognised in the profit or loss on the date of completion is approximately $3,300 million. The gain on disposal is subject to adjustment for any reimbursement by the Company to Keppel O&M for certain expenditures incurred by Keppel O&M before the completion of the combination, relating to assets sold by Keppel O&M to Rigco Holding Pte Ltd to the extent that such expenditures are in excess of an agreed sum.

40. Significant subsidiaries, associated companies and joint ventures

Information relating to significant subsidiaries consolidated in these financial statements and significant associated companies and joint ventures whose results are equity accounted for is given in the following pages.