

Tiong Woon Corp

**Singapore
Marine/Oil & Gas**
28 March 2007

The forgotten Oil & Gas Play

♦ **Poised to benefit from rising downstream demand**

With Shell's announcement of its multi-billion petrochemical cracker in Singapore in 2006 and ExxonMobil's expected announcement of their investment plans in the near future, we expect to see flows of between US\$6 and US\$8bn over the next few years into Singapore's oil refinery sector from Shell and ExxonMobil alone. Singapore's Economic Development Board (EDB) is targeting the number of Jurong Island plants to rise from the present 60-70 to 150 by 2010.

Tiong Woon Corporation (TWC) has transformed itself into a regional lifting solutions provider over the past few years. With its crane fleet of more than 200 assets, it ranks 11th in the world, in terms of its lifting capacity. Having made a concerted effort to shift its focus into the more lucrative oil & gas (O&G) industry, it is well-poised to ride the impending rise in demand for its services over the next few years.

♦ **Bintan yard to drive wider service offering and earnings**

TWC acquired a 65ha yard costing S\$4m in Bintan as of the end of 2006 to widen its service offerings to its clients. TWC's intention is to participate in the offshore O&G sector by offering a complete range of engineering, procurement and construction services. It will start by fabricating and delivering a range of offshore production facilities such as platforms and modules. The yard's facilities include a waterfront, workshops and living quarters - all ready to commence operations. With the currently tight situation at most yards, we see contributions coming through in FY08. It could even surprise on the upside if order flows gather momentum, thus acting as a price trigger in the process.

♦ **Middle East initiative could drive growth further**

TWC was awarded an investment license to run a wholly foreign-owned business entity in Saudi Arabia recently. TWC's Middle East growth strategy is to expand its fleet size in the market to about 50-100 strong with an increase in its lifting capacity from 50 to 300 tonnes over the next few years. It could potentially contribute to as much as 25% of its revenue with the same proportion of its total fleet deployed there eventually.

♦ **Very attractive valuation with significant upside. BUY**

Trading below its historical high of S\$0.61, TWC's price underperformance reflects sluggish past performance and a lack of market awareness. With its 1H07 profit up 153%, we believe its earnings momentum will pick up. Trading at very attractive earning multiples of 10.1x and 7.1x for FY07-08 respectively, we believe TWC deserves a 14.4x FY08 PE, (based on 0.4X PEG) which translates to a target price of S\$0.88. We initiate coverage with a BUY recommendation.

Year End June 30	2005	2006	2007F	2008F	2009F
Sales (\$ m)	70.5	69.2	91.2	161.2	206.5
Pre-tax (\$ m)	13.0	12.4	19.5	27.0	32.8
Net profit (\$ m)	8.5	8.8	14.3	20.5	24.9
EPS (cts)	3.8	2.6	4.2	6.1	7.4
EPS growth (%)	-5.7	-30.9	62.5	42.8	21.5
PER (x)	11.4	16.4	10.1	7.1	5.8
EV/EBITDA (x)	5.9	7.1	5.6	4.8	4.3
Yield (%)	0.7	0.7	1.2	1.6	1.9

BUY

Initiating Coverage

Analyst:

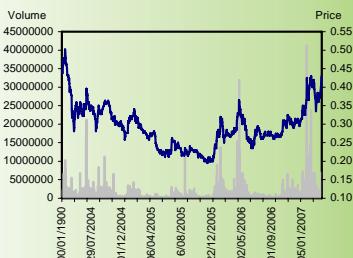
Sebastian HENG

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Price	\$0.43
Target	\$0.88
ST Index	3,234

Historical Chart



Performance	1m	3m	6m
Absolute (%)	8.9	38.7	62.3
Relative (%)	8.8	27.6	28.3

Stock Information

Ticker code	TWCN.SI
	TWC.SP
Market Cap (US\$m)	95.7
52-week high (\$)	0.430
52-week low (\$)	0.235
Shares issued (m)	337.6
6m avg. daily vol (US\$m)	1.6
Free float (%)	57.3

Major Shareholders (%)

Ang Choo Kim & Sons (42.7)

Key Indicators

ROE (%)	10.3
Net gearing (%)	28.7
NTA (\$)	0.27
Interest cover (x)	8.6

Earnings Drivers

TWC is positioned to benefit from upswing in downstream refinery spending

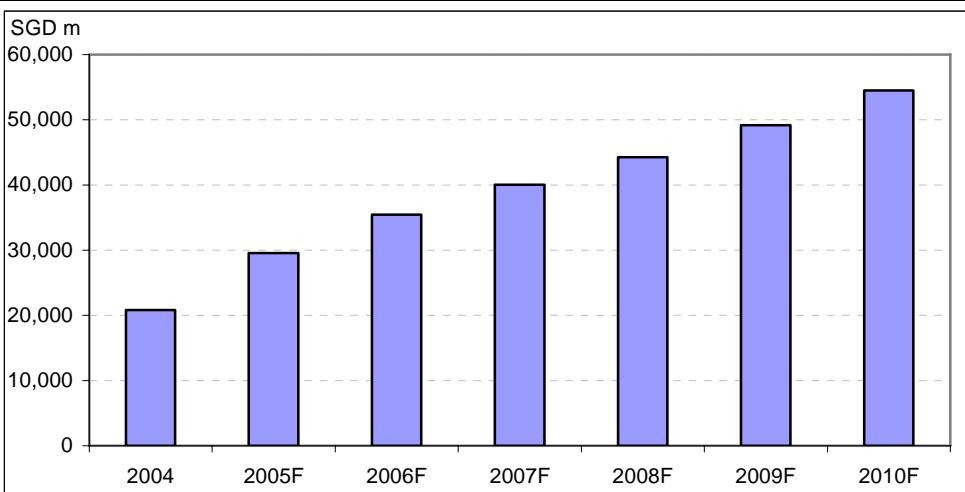
Poised to benefit from rising downstream demand

Singapore's chemical cluster has surpassed electronics as the largest contributor to Singapore's manufacturing output. With Shell's announcement of its US\$3bn petrochemical cracker in Singapore and ExxonMobil's expected announcement of their investment plans any time soon, we could see capital expenditures to the tune of US\$6-8bn in Singapore's oil refinery sector over the next few years from Shell and ExxonMobil alone. Singapore's EDB plans to continue its Jurong Island initiatives, which could see the island's present number of 60-70 plants increase to 150 by 2010.

Over the years, TWC has transformed itself into a regional lifting solutions provider. With its crane fleet of more than 200 assets, it ranks 11th in the world in terms of total tonne-metre lifting capacity. Together with its fleet of 159 movers, 21 tugs and barges, it is well-equipped to provide a one-stop lifting logistic solution to its end-clients.

TWC has made a concerted shift from the more competitive construction industry into the more lucrative O&G construction sector over the past five years. Given its more stringent requirements, the O&G industry tends to have higher barriers of entry, which translates into higher margins. With Singapore's construction industry entering a bull phase - driven by the Integrated Resorts and a buoyant property market, cranes are already in short supply. In tandem with the construction boom, downstream O&G construction activities are also expected to pick up over the next few years. TWC is well-positioned to benefit as it has scaled up its fleet from about 140-150 in 2003 to 218 as of 1H07. Hence, it is well-poised to capture the slew of opportunities that will avail themselves in Singapore and the Middle East.

Figure 1: Singapore chemical sector growth



Source: Singapore EDB

New Bintan yard will enable TWC to further value add to clients

Bintan yard to drive wider service offering and earnings

In order to broaden its service offerings to its clients, TWC purchased several parcels of waterfront land with a total approximate area of 643,074sm (about 65ha) with accompanying workshops and accommodation facilities for S\$4.0m on Bintan Island, Indonesia, in November 2006. This works out to about S\$6.0 per square metre – a reasonable price, in our opinion.

TWC is in the process of securing all the necessary approvals and permits from the relevant authorities for the following activities: -

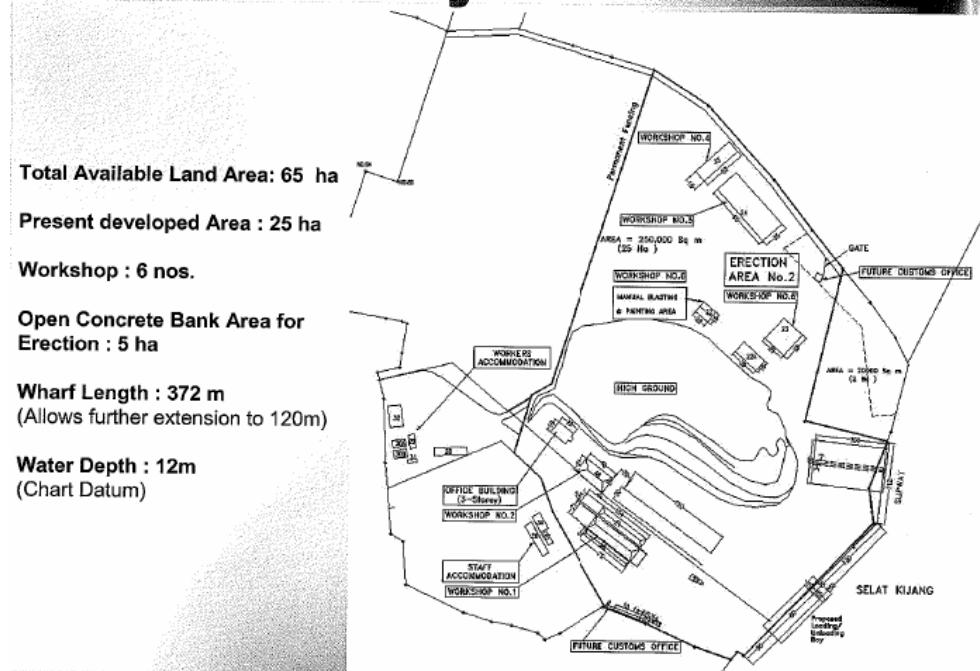
1. Fabrication and engineering works for O&G projects;
2. Shipyard;
3. Manufacturing of oil, gas and ship equipment;
4. Rig repair services; and
5. Platform services

The yard will be used to fabricate oil & gas-related products, and this is move is strategically in line with the group's objective of providing an integrated suite of services for lifting solutions.

TWC's intention is to participate in the offshore O&G fabrication sector by offering a complete range of engineering, procurement and construction services. It will start by fabricating and delivering a range of offshore production facilities comprising:

1. Platforms: Integrated production platforms, process platforms, drilling platforms, wellhead platforms and accommodation platforms;
2. Modules: Water injection modules, compression modules, power generation modules etc; and
3. FPSO (floating, production, storage and offloading) topside modules

Bintan Yard Layout



With a recently-hired management team and the physical infrastructure in place, we expect TWC's Bintan yard to provide another growth engine for the group by riding on the huge demand for oil & gas-related fabrication services in the region. This demand has resulted in the presently tight shipyard situation.

Middle East initiative could drive growth further

Middle East will provide new growth catalyst

TWC expects the Middle Eastern market to drive its next phase of growth for its lifting solutions business. TWC was the first Singapore company to be awarded an investment license to run a wholly foreign-owned business entity in Saudi Arabia

recently. The license was granted by the Saudi Arabian General Investment Authority (SAGIA), which allows TWC to engage in contractual executions of installation, lifting, maintenance services of equipment for oil, gas, petrochemicals and electrical power-related projects, along with marine transportation services in Saudi Arabia.

TWC's Middle East growth strategy is to expand its fleet size in the market to about 50-100 strong with an increase in lifting capacity from 50 to 300 tonnes. This is expected to cost around S\$20m and could contribute to as much as 25% of its revenue in a few years' time.

The Saudi Arabian construction market is expected to remain strong over the next few years. The Middle Eastern economies that are benefiting from the high oil prices have been aggressively channelling their surpluses into building infrastructure in order to diversify its economy away from over-reliance on oil. According to *Cranes Today*, despite having an estimated population of 3000 crane units in United Arab Emirates (UAE), demand continues to outstrip supply by 2 to 1. Mobile crane buyers continue to be frustrated by long lead times globally.

TWC's key market, Saudi Arabia, is experiencing an explosion of construction activities after benefiting from billions of windfall as result of rising oil prices. As the following tables highlight, billions of dollars are expected to be spent in the economy over the next few years in the areas of infrastructure, utilities and downstream oil and gas.

TWC's recently-awarded licence and its market presence will enable it to maximise benefits as building activities gather momentum in the next few years.

Figure 2: Sample of Saudi Arabia's project pipeline

Value (US\$b)	Projects
\$123.0	Electricity grid expansion
\$93.0	Building of desalination plants and pipelines
\$6.0	Housing Projects
\$5.0	Hospitals & healthcare
\$2.0	Education facilities
\$3.0	Building causeway link

Source: *Business Week*

Figure 3: Sample of recent Saudi projects awarded

Value (US\$m)	Description
\$8,000	Building of Prince AbdulAziz Economic City
\$400	Dow Chemical Company & Devy Technology selected by the Dammam 7 Petrochemical Company to develop a butanol plant
\$16,000	Dow Chemical Company awarded the development of the Ras Tanura Refinery Upgrade project in the Eastern Province.
\$973	GE awarded contract to supply 23 gas turbines to three power plants in the kingdom's eastern and central regions.
\$2,200	Fluor Corporation awarded contract to provide engineering, procurement services, and construction management for the utilities and offsite facilities for the Saudi Kayan Petrochemical Complex.
\$7,000	Worley Parsons awarded contract to work on Sipchem's Phase III olefins and derivatives complex.
\$150	Huntsman & Al-Zamil sign a contract for the development of the New Ethyleneamines Plant.
\$6,000	ConocoPhilips and Kellogg Brown and Root awarded for two full-conversion refineries.
\$14	US Based Flowserve awarded contract to build pump repair facility.
\$1,760	4 consortia qualify for Saudi Landbridge Project.
\$240	Ma'aden to construct new sulphuric acid complex.
\$3,200	SABIC announced an agreement with Kayan Petrochemicals Company to establish a petrochemical project based in Jubail Industrial City.
\$1,100	Flour Canada awarded contract for the construction of an acetic acid and vinyl acetate monomer plant.

Source: US-Saudi Arabian Business Council

TWC's share price has underperformed its peers

Lagging share price performance

TWC's share price performance has lagged behind its closest comparable, Tat Hong and its O&G peers. We attribute its performance to a few factors:

1) Lack of stock coverage: There is minimal stock coverage at the moment. We hope that our initiation will lead to a greater market awareness of the stock that will, in turn, lead to its re-rating.

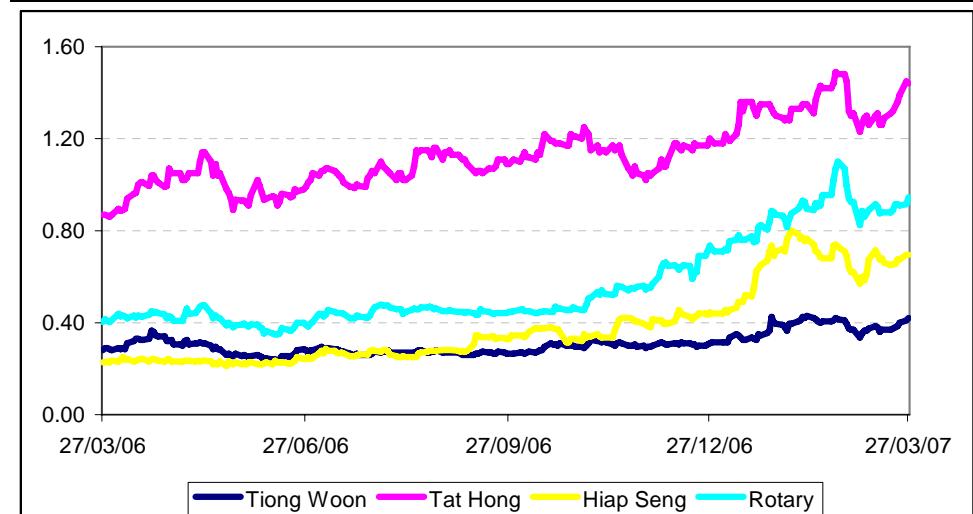
2) Lagging fundamental performance over the past three years: Unlike its closest peer, Tat Hong, which had seen its profits rise from S\$13.9m to S\$44.3m from FY04-06, TWC's earnings had been flat, from a profit of S\$9.6m to S\$8.8m from FY04-06. We attribute this outcome to the group's consolidation of its operations as it was shifting its focus into the O&G sector. We believe we are on the cusp of an upswing in its earnings momentum as the benefits of its recent fleet increase are starting to show. This is evidenced by its recent 1H07 earnings that jumped 153%.

Figure 4: Table of relative share price performance

	1 mth	3 mths	6 mths	12 mths
Tiong Woon Corp Hldg Ltd	7.6	37.1	60.4	51.8
Tat Hong Holdings Ltd	-0.7	20.0	32.1	65.5
Hiap Seng Engineering Ltd	0.7	56.2	111.4	206.2
Rotary Engineering Ltd	-5.0	28.6	111.6	134.2
Straits Times Index	0.1	9.2	26.5	29.2

Source: bloomberg

Figure 5: Downstream oil & gas share price performances



Source: Bloomberg

VALUATION

An undervalued gem

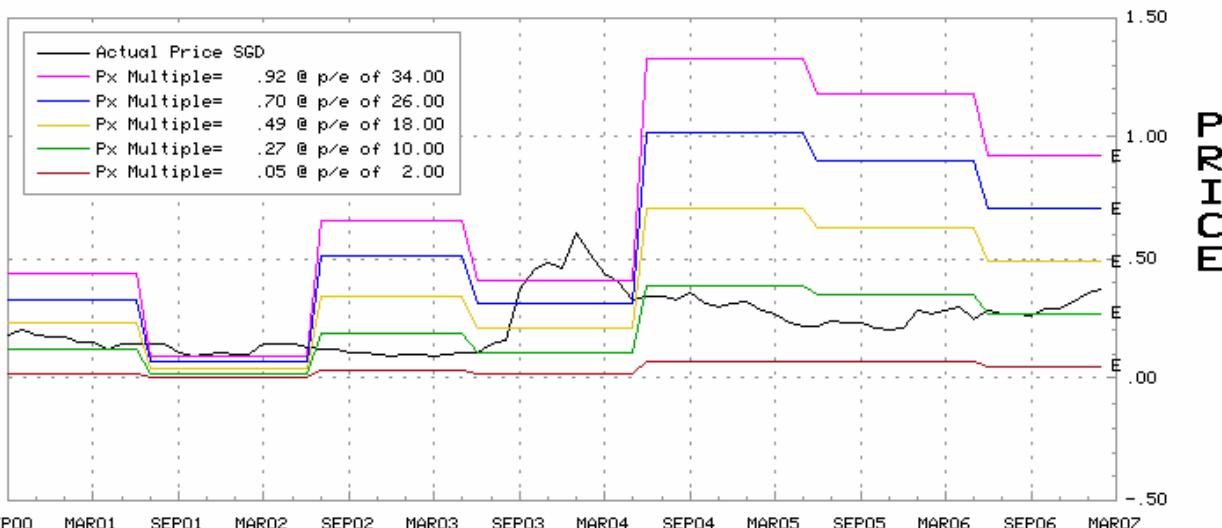
TWC's valuation is at an unjustifiable discount to the market

The stock's relative underperformance and with its improving prospects have resulted in TWC trading at very attractive valuations. Trading at 10.1x and 7.1x for FY07-08 respectively, TWC looks very undervalued as it is trading at almost half the earnings multiple of its nearest comparable, Tat Hong. Singapore-listed O&G players, in particular, the other downstream players like Rotary and Hiap Seng, are priced between 10-11x FY08 PE.

Relative to its growth prospects, TWC trades at an undemanding multiple as we expect the group to grow at a three-year EPS CAGR of 41% (2005–08). There is potential for an earnings upgrade, given that TWC's Bintan yard could benefit from an increasing order flow from regional refinery spending.

We believe TWC deserves a 14.4x FY08 PE, (based on PEG of 0.4x) which translates to a target price of S\$0.88. We initiate coverage with a BUY recommendation.

Figure 6: Historical P/E Band



Source: Bloomberg

Figure 7: Sector comparables

	Share price (Icl curr)	Shares outstanding (m)	Market cap (Icl curr)	Market cap (US\$m)	PE	EPS growth	Price/ book	Net ROE (%)	Net Margin (%)	Gearing (%)	Div Yield (%)
Tiong Woon Corp	0.43	337.6	145.2	95.7	16.4	10.1	7.1	62.5	42.8	1.7	12.5
Tat Hong	1.45	455.8	661.0	435.7	14.8	16.7	12.9	(11.2)	28.7	3.2	23.2
Hiap Seng	0.73	303.8	220.2	145.2	37.4	13.9	10.4	169.5	33.7	4.2	13.2
Rotary Engineering	0.95	567.8	536.6	353.7	56.2	14.9	11.1	276.6	34.8	3.9	29.0
Boom Logistics	3.50	170.6	597.1	393.6	16.1	13.5	11.9	19.3	12.7	3.4	18.7
Tutt Bryant	1.52	129.8	197.2	130.0	4.0	13.5	10.8	(70.2)	24.8	2.2	na
										5.9	16.2
											3.8

Based on consensus estimates

Sources: Bloomberg; Kim Eng

TWC ranks 11th in the world by lifting capacity

Company Background

One of Singapore's most established engineering groups

TWC was founded in 1978 as a partnership to offer crane and transport services to the local construction industry in Singapore by the current Chairman, Mr Ang Kah Hong's father, Mr Ang Choo Kim. Tiong Woon CT was formed in 1980 by the children of Mr Ang Choo Kim to assume operations of the partnership. The effort was led by Chairman & CEO Mr Ang Kah Hong who has been instrumental in leading and growing the group to its present stature over the past 27 years.

TWC has evolved from a one hydraulic truck crane company that primarily services the Singapore market into a regional player with a fleet of 218 cranes. It presently ranks as the 11th-largest crane leasing company in the world by lifting capacity.

Operationally, the group has also grown in complexity. In order to differentiate itself, TWC has transformed itself from a crane service provider into an integrated specialist heavy-lift solutions provider. In addition to its crane fleet, TWC is also supported by its fleet of 159 units of trucks/trailers/prime movers and its 21 strong tug and barge fleet.

With the recent acquisition of its Bintan fabrication yard, TWC can now offer a more comprehensive suite of services to its O&G clients, given its added fabrication and engineering capabilities.

Figure 8: World ranking of crane companies by lifting capacity

No.	Company	Based	IC Index
1	Lampson International	USA	1,038,007
2	Mammoet	Netherlands	948,296
3	Maxim Crane Works	USA	554,400
4	All Erection & Crane Rental	USA	463,421
5	Essex Crane Rental	USA	411,000
6	Sarens	Belgium	305,922
7	Hovago Cranes	Netherlands	244,127
8	Group Mediaco Lifting	France	189,645
9	Tat Hong Holdings	Singapore	173,520
10	AmQuip Corporation	USA	161,925
11	Tiong Woon Crane and Transport	Singapore	145,100
12	Sarilar Heavy Lift & Transport	Turkey	138,836
13	MIC Corporation	Japan	130,638
14	Prangl	Austria	121,980
15	Sanghvi Movers	India	121,320
16	Sterling Crane	Canada	119,835
17	Barnhart Cranes & Rigging	USA	112,595
18	Al Jaber Heavy Lift and Transport	UAE	110,400
19	Weldex	Scotland	102,950
20	Schmidbauer	Germany	102,000
21	Uchimiya Transportation & Engineering	Japan	100,569
22	Havator Group	Finland	98,008
23	Ainscough Crane Hire	UK	81,819
24	Deep South Crane & Rigging Company	USA	73,718
25	M D Moody & Sons	USA	72,122
26	CST Consorzio Sollevamenti Transport	Italy	71,109
27	Guay	Canada	67,116
28	Felbermayr Transport und Hebetechnik	Austria	66,240
29	Boom Logistics	Australia	58,777
30	Laramie Enterprises	USA	58,713

Source : Crane International

Presently, TWC's service offerings encompass the following:

1. Engineering & management services for turnkey projects;
2. Planning, design & execution stages of integrated lifting & haulage requirements;
3. Transportation, lifting and installation of process equipment on-site; and
4. Project management expertise in the areas of: a) lifting & transport configurations; b) Operations and safety; c) Technical drawings & calculations; and d) manpower planning and deployment.

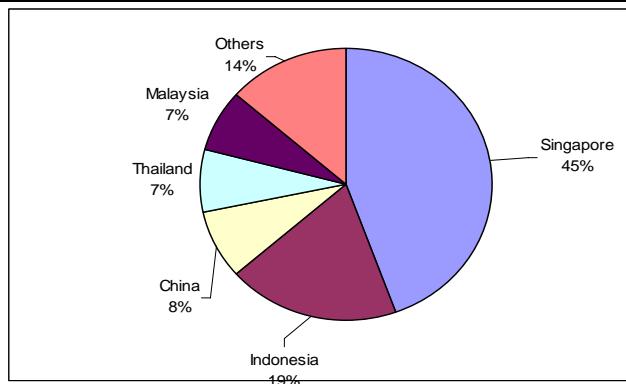
The increasing diversity....

TWC's business has a good regional spread

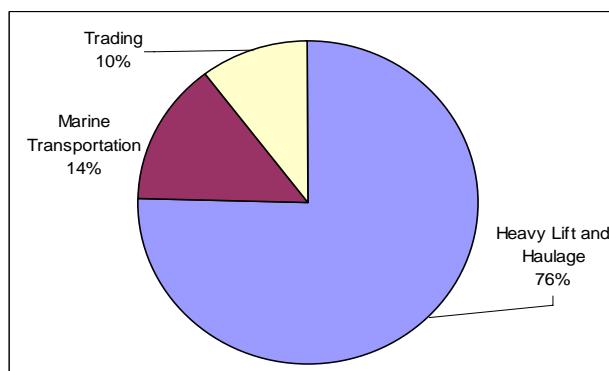
TWC has expanded its geographical reach over the years.

As of FY2006, Singapore accounts for 45% of its total revenue, Indonesia about 19%, with another 8% from China, and 7% each from Malaysia and Thailand. The remaining 14% of revenue was derived from areas like the Middle East.

From a business point of view, in FY06, Heavy Lift & Haulage constituted 76% of its total revenue, while 14% was derived from its Marine Transportation segment. Trading contributed the remaining 10% to group revenue.

Figure 9: FY06 Revenue segment breakdown by country

Source: Company, Kim Eng estimates

Figure 10: FY06 Revenue segment breakdown by business

Source: Company, Kim Eng estimates

Figure 11: Crane fleet statistics

	Capacities(ton)	Units
Hydraulic Cranes	50-500	93
Crawler Cranes	50-1,250	93
Rough Terrain Cranes	20-80	23
Lorry Cranes	10-20	9
TOTAL		218

Source: Company

Figure 12: Transport fleet statistics

Prime Movers	35
Lowbeds	33
Commetto trailers/Self propelled trailers	9
Trailers	78
Tow Trucks	4
TOTAL	159

Source: Company

Figure 13: Transport fleet statistics

Tugs/Barges	Units
Tugs	9
Barges	12
TOTAL	21

Source: Company

Financial Review

Low net gearing despite being asset driven

Balance sheet is relatively strong for an asset driven company

ROEs expected to rise on the back of improving outlook

Like most other long-established engineering companies in Singapore, TWC is a relatively conservatively-run company. Given that it is an asset-driven group of companies, its balance sheet remains in a comparatively healthy position with a net gearing of 40%, as at 1H07.

Strong earnings rebound reflected by 1H07 to drive ROEs

TWC's 1H07 bottomline was up by 153% to S\$7.1m, underpinned by a revenue growth of 52%. All segments saw significant profit improvement with Heavy Lift & Haulage up by 55% to S\$6.1m, Marine Transportation up by 428% to S\$2.4m and Trading up by 774% to S\$0.4m. An overall positive operating environment supported by strong demand gave rise to the increase in both turnover and margins.

Margins-wise, its gross margin grew to 37% in 1H07 from 34% in the previous period. Better cost management further improved its pre-tax margin from 15.2% to 20.0% for the same period.

Being an asset-driven company, TWC's FY06 ROE of 10.2% was decent, but not spectacular. Compared with its competitor, Tat Hong, whose exceptional ROE of 17.2% achieved in the last fiscal period, suggest that TWC would have the potential to improve returns in the near future. With the jump in earnings expected in FY07 (supported by 1H07's profit jump), we expect its ROE to climb to about 14.6% in FY07 and 17.6% in FY08.

Figure 14: 1H07 Results review

Turnover (\$\$mn)	1H07	1H06	Variance
Heavy Lift and Haulage	29.1	24.4	19%
Marine Transportation	8.6	3.9	121%
Trading	6.4	0.6	946%
Total Turnover	44.1	29.0	52%
Pretax			
Heavy Lift and Haulage	6.1	3.9	55%
Marine Transportation	2.4	0.5	428%
Trading	0.4	0.0	774%
Total Pretax	8.8	4.4	100%
Income tax	(1.7)	(1.3)	31%
MI	(0.1)	(0.3)	-80%
PATMI	7.1	2.8	153%

Source: Company, Kim Eng estimates

Figure 15: Segmental turnover

YE June	FY05	FY06	FY07e	FY08F	FY09F
(S\$mn)					
TURNOVER					
Heavy Lift and Haulage	54.1	52.1	61.1	76.4	87.8
Marine Transportation	7.6	10.0	17.3	20.7	23.2
Trading	8.8	7.1	12.8	14.1	15.5
Bintan Yard	0.0	0.0	0.0	50.0	80.0
Total	70.5	69.2	91.2	161.2	206.5
Operating profit					
Heavy Lift and Haulage	10.8	11.6	13.6	17.6	20.6
Marine Transportation	0.5	0.4	5.0	6.0	6.7
Trading	0.5	0.3	0.8	0.8	0.9
Bintan Yard	0.0	0.0	0.0	2.5	4.4
Other gains	2.9	1.5	1.6	1.8	2.0
Total	14.6	13.8	21.0	28.7	34.7
Interest expense	(1.6)	(1.4)	(1.6)	(1.7)	(1.9)
Pre-associate Profit	13.0	12.4	19.5	27.0	32.8
Associate Contribution	0.0	0.0	0.0	0.0	0.0
Pretax Profit	13.0	12.4	19.5	27.0	32.8
Tax	(3.0)	(3.4)	(4.9)	(6.2)	(7.5)
Minority Interests	(1.5)	(0.2)	(0.3)	(0.3)	(0.4)
Net Profit	8.5	8.8	14.3	20.5	24.9
EPS (S cts)	3.8	2.6	4.2	6.1	7.4

Source: Company, Kim Eng estimates

Sector Outlook

Rising Refinery Capital Costs

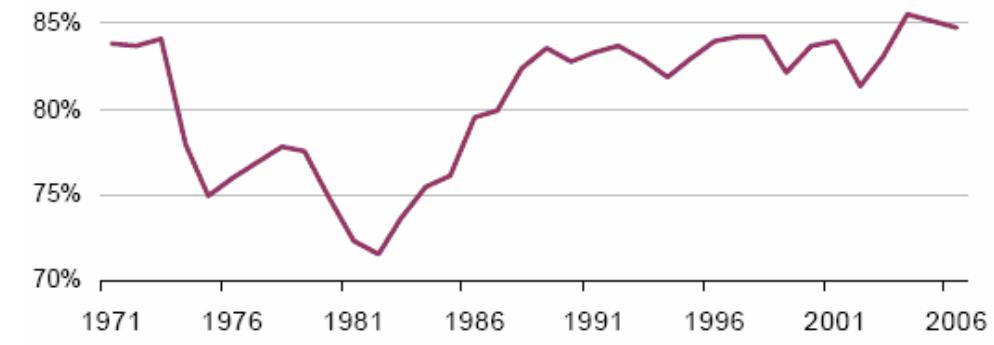
Capital investment in refineries has increased

Industry cost estimates for a newbuild cracking refinery in Europe, or the US, have risen to US\$20,000 per barrel per day (b/d) of capacity from around US\$15,000, according to the International Energy Agency's (IEA) latest "Medium Term Oil Market Report". Consequently, the capital investment needed for a 200 kb/d refinery has surged to about US\$4.0bn from around US\$3.0bn. This reflects the rising costs of raw materials, as well as the tight oil service and fabrication markets. Furthermore, the tighter product specifications now prevalent in many countries require additional processing and hydro-treating of fuel streams, further increasing costs. In addition to the tighter fuel quality regulations, enhanced environmental emission regulations have also increased refinery capital costs. Recent evidence suggests that escalating cost pressures for refinery construction has led to the cancellation or postponement of projects, and is one of the factors we consider for the viability of future projects. Industry estimates indicate that a new 200 kb/d refinery, costing US\$4.0bn, requires average margins in excess of US\$6.50/bbl for the next 20-25 years to achieve a 10% internal rate of return.

Most will probably have to be built outside Europe and US

The recent increase in construction costs suggests that new-build refineries may still be uneconomical in Europe and the US, despite historically high margins. Asian countries, like China, have access to lower-cost domestic construction industries, which can reduce capital costs of a new refinery by as much as a third, thus boosting regional prospects for new refineries.

Figure 16: Global refinery utilisation



Source: IEA

Likely Delays in Refinery Expansion Plans

Industry will be expected to experience longer lead times due to tight market conditions

Refinery expansion plans have historically required around three years from the final capital investment decision to start up. In the current tight market conditions in the oil service and fabrication industries, some refinery construction firms have full order books for the next two to three years. It appears likely that 2010-2011 is a more realistic start-up for new-build refineries under consideration today. Depending on the scale and complexity of the projects being considered, we expect to see longer lead times of between three to five years.

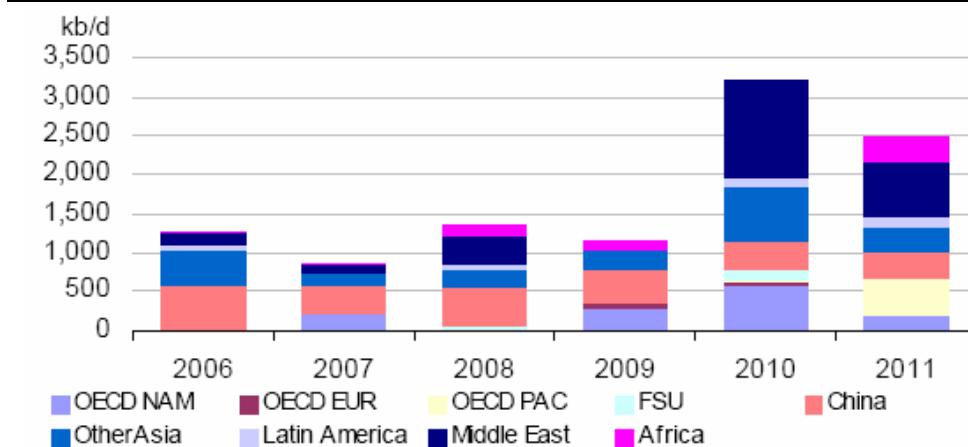
Given the significant delays that can occur from obtaining permits and other regulatory hurdles, grass-root refinery project timing and viability is the hardest factor to assess. The poor financial track record of the refining sector, coupled with rising capital costs, suggests that a significant number of proposed projects will remain in the planning stages.

**New capacity
expected to come
on stream...**

There is a total of some 15.1 mb/d of new capacity announced for completion before 2011. However, many of these grass-root refineries are not expected to be completed in time due to a combination of political, nationalistic, competitive and strategic reasons. IEA expects 10.3 mb/d in net additions to refinery capacity during the 2006-2011 period, which is significantly lower than the planned expansions.

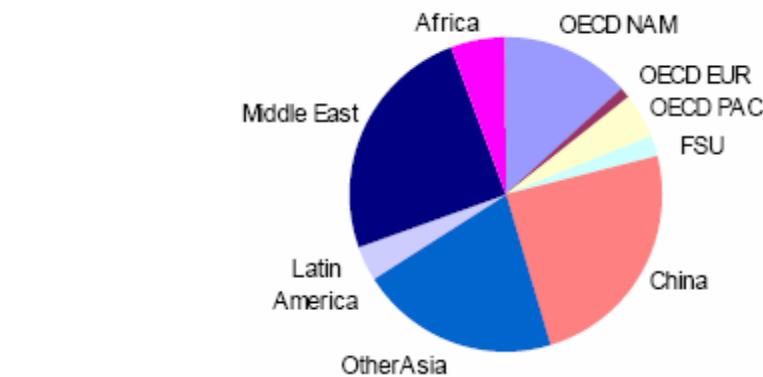
Refinery capacity growth is centred in Asia (4.6 mb/d), the Middle East (2.6 mb/d), and North America (1.4 mb/d). OPEC member countries are expected to account for 3.0 mb/d of new-build distillation capacity, which constitutes some 30% of total refining capacity additions. Similarly, national oil companies are involved in 7.1 mb/d of new capacity additions, around two-thirds of overall growth. The increase in Asian capacity is expected to occur primarily in China (2.5 mb/d) and India (1.7 mb/d).

Figure 17: Refinery capacity additions and expansions



Source: IEA

Figure 18: Refinery capacity additions and expansions



Source: IEA

**Utilisation expected
to remain strong in
the medium term**

It is also worth noting that there are further large increases to capacity proposed for the 2012-2015 period.

Global distillation capacity utilisation rates are expected to remain strong during the 2006-2009 period as capacity additions lag behind demand growth. However, there would likely be rapid increases in refinery capacity during the 2010-2011 period, suggesting that average utilisation rates would fall in this latter period.

Based on this scenario, TWC is well-poised to ride this downstream capacity expansion over the next few years, given its positioning as a regional O&G lifting solutions provider with operations in Singapore, Malaysia, Indonesia, China, Thailand and the Middle East. Its new Bintan yard will also enable it to participate in the rising O&G fabrication activities in the region.

Figure 19: Global oil demand & refining capacity estimates

	1990	1995	2000	2001	2002	2003	2004	2010	2020
Global oil demand (m bbl/d)	66,200	70,000	76,600	77,300	77,900	79,400	82,300	90,400	106,700
World refining capacity (m bbl/d)	74,532	76,509	81,961	82,840	83,562	83,930	84,592	98,536	116,303
Incremental oil demand (m bbl/d)		3,800	6,600	700	600	1,500	2,900	8,100	16,300
Incremental refining capacity (m bbl/d)		1,977	5,452	879	722	368	662	13,944	17,767
<i>Surplus of refining capacity (%)</i>	13	9	7	7	7	6	3	9	9

Source: ICF Consulting

The Singapore context

Singapore is a leading international centre for chemical

Singapore's positioning in global chemicals includes the following:

- One of the world's top oil refining centres;
- One of the top three oil trading and price discovery centres;
- Among the world's top 10 petrochemical hubs; and
- Among the world's top three bulk liquid ports

Cluster has now surpassed electronics as the top contributor to Singapore's manufacturing output

Singapore's chemicals sector (that includes petroleum, petrochemicals and specialty chemicals industries) has surpassed the electronics sector as the top contributor to domestic manufacturing output in 2006. Output had been growing at a compounded annual average rate of almost 24% from 2002 to 2006. Last year's output was worth S\$74.7b, or 33% of total manufacturing output.

Singapore's petrochemical industry has been growing rapidly due to the concerted effort by Singapore's EDB to promote the sector. It has been building on the country's strong base in petroleum refining, despite having no natural resources of its own. Since the mid-1990s, the government's strategy has been to move downstream, from petroleum refining to petrochemicals and chemicals production, so as to expand its industrial mix and integrate its existing base of oil refineries. As a result of this strategy, Singapore has benefited from the increased demand from China and India, and is likely to remain a key petrochemicals exporter over the medium to long term.

Jurong Island has been the physical platform facilitating the sector's growth. It was merged from several islands and has an area totaling 3,200ha. It has already attracted SGD22bn (US\$13.02bn) of investment and provides about 6,500 jobs and has 88 companies operating there. Currently, there are four refineries, two ethylene crackers, two aromatics complexes, several downstream units and considerable infrastructure operating in the island.

The Singapore Chemical Industry Council (SCIC) believes that the sector will continue to achieve double-digit growth over the next few years, driven by new plants like Ciba Specialty Chemicals, RohMax Oil Additives, Lucite International, Sumitomo Chemical and Huntsman. Shell and ExxonMobil are both planning to add new crackers. The Singapore government's goal is to attract a total of 150 companies by 2010, with a combined investment of SGD40bn (US\$23bn).

Rosy offshore market outlook

We expect oil prices to remain firm...

A healthy E&P market bodes well for downstream spending. Current crude prices of over US\$50/barrel augur well for the offshore exploration and production services sector. Crude prices have greatly exceeded the US\$15/barrel benchmark, the lowest economically-feasible price for oil firms to engage in exploration and production (E&P). In the medium term, the high global oil demand will continue to be driven by China's vigorous industrialisation and economic growth in India and Indonesia. Brent crude oil prices are expected to remain above US\$40/barrel in the next few years, which will further drive E&P activities.

Figure 20: Brent oil prices



Source: Bloomberg

....and E&P capex to increase

According to Lehman Brothers' Worldwide Exploration & Production Expenditure survey of more than 300 operators, it is expected that 2007's capex will rise by 9% to US\$268bn after jumping 20% and 30% in 2005 and 2006 respectively.

Internationally, national oil companies and large integrated oil firms are driving the demand for additional rigs and services, still healthy levels in our assessment. It is also noted that the final overall E&P budgets for 2005 and 2006 ended up higher than initial estimates as companies overspent and we expect that to recur in 2007. It is, however, unlikely that growth rates will come close to those experienced in 2005 and 2006.

Figure 21: 2007 E&P budget of select major oil companies

(US\$mn)	2006	2007
AGIP (Eni)	310	460
BP	3,600	4,300
Chevron	3,600	4,000
ConocoPhillips	3,250	3,300
ExxonMobil	2,450	2,600
Hess	910	1,150
Marathon Oil	1,150	1,040
Occidental Petroleum	1,350	1,425
Royal Dutch Shell	1,850	2,000

Source: Citigroup

Profit and Loss					
YE Jun (S\$m)	2005	2006	2007E	2008E	2009E
Sales	70.5	69.2	91.2	161.2	206.5
Cost of goods sold	(49.1)	(45.2)	(58.9)	(120.1)	(158.3)
EBITDA	21.4	24.0	32.3	41.1	48.3
Depreciation & amortisation	(9.7)	(11.7)	(12.9)	(14.1)	(15.6)
Operating Profit	11.7	12.3	19.4	26.9	32.7
Net interest	(1.6)	(1.4)	(1.6)	(1.7)	(1.9)
Interest income	0.0	0.0	0.0	0.0	0.0
Interest expense	(1.6)	(1.4)	(1.6)	(1.7)	(1.9)
Net investment income/(loss)	2.9	1.5	1.6	1.8	2.0
Net other non-op. JV+Assoc.	0.0	0.0	0.0	0.0	0.0
Net exceptional	0.0	0.0	0.0	0.0	0.0
Pretax income	13.0	12.4	19.5	27.0	32.8
Income taxes	(3.0)	(3.4)	(4.9)	(6.2)	(7.5)
Minority Interest	(1.5)	(0.2)	(0.3)	(0.3)	(0.4)
Net profit	8.5	8.8	14.3	20.5	24.9
EBITDA	21.4	24.0	32.3	41.1	48.3
EPS(\$\$)	3.8	2.6	4.2	6.1	7.4

Source: Company data, Kim Eng estimates

Cashflow					
YE Jun (S\$m)	2005	2006	2007E	2008E	2009E
Operating cash flow	21.4	16.9	15.2	10.4	20.8
Net Profit	8.5	8.8	14.3	20.5	24.9
Depreciation & amortisation	9.7	11.7	12.9	14.1	15.6
Change in working capital	(0.9)	(7.0)	(4.1)	(15.1)	(9.5)
Others	4.0	3.3	(7.9)	(9.2)	(10.2)
Investment cash flow	(3.0)	(24.9)	(21.2)	(21.3)	(21.4)
Net capex	(3.0)	(25.6)	(21.2)	(21.3)	(21.4)
Change in LT investment	0.0	0.8	0.0	0.0	0.0
Change in other assets	0.0	0.0	0.0	0.0	0.0
Cash flow after invt.	18.4	(8.0)	(5.9)	(10.9)	(0.7)
Financing cash flow	(14.2)	8.8	7.9	13.3	3.4
Change in share capital	0.0	22.9	0.0	0.0	0.0
Net change in debt	(12.2)	(11.9)	13.1	19.0	9.7
Change in other LT liab.	(2.1)	(2.2)	(5.2)	(5.7)	(6.3)
Net cash flow	4.2	0.9	2.0	2.3	2.8

Source: Company data, Kim Eng estimates

Balance Sheet					
YE Jun (S\$m)	2005	2006	2007E	2008E	2009E
Total assets	117.1	145.2	174.9	222.0	260.9
Current assets	29.8	36.0	45.7	72.8	91.7
Cash & ST investment	9.2	10.1	12.2	14.9	18.0
Inventories	0.7	0.5	0.7	1.2	1.5
Accounts receivable	18.8	23.6	31.0	54.9	70.3
Others	1.1	1.8	1.8	1.8	1.8
LT assets	87.2	109.2	129.2	149.2	169.2
LT investments	0.0	0.0	0.0	0.0	0.0
Associates	0.5	0.0	0.0	0.0	0.0
Net fixed assets	86.6	109.1	129.1	149.1	169.1
Others	0.2	0.1	0.1	0.1	0.1
Total liabilities	56.1	55.4	72.2	100.9	117.2
Current liabilities	28.3	26.0	33.3	43.1	49.7
Accounts payable	10.0	8.8	11.6	20.5	26.3
ST borrowings	17.4	15.1	18.7	18.7	18.7
Others	0.9	2.1	3.0	3.9	4.7
Long-term liabilities	27.8	29.4	38.9	57.8	67.5
Long-term debts	20.6	20.3	29.8	48.8	58.5
Others	7.2	9.1	9.1	9.1	9.1
Shareholder's equity	60.9	89.8	102.7	121.1	143.7
Paid-in capital	27.1	50.0	50.0	50.0	50.0
Reserve	28.4	35.8	48.5	66.6	88.7
Min Int	5.3	3.9	4.2	4.5	4.9

Source: Company data, Kim Eng estimates

Key Ratios					
YE Jun (S\$m)	2005	2006	2007E	2008E	2009E
Growth (%YoY)					
Sales	38.3	(1.9)	31.8	76.8	28.1
EBITDA	6.7	11.9	34.4	27.3	17.5
Pretax	19.4	(5.1)	57.4	38.6	21.4
NP	(5.7)	3.6	62.5	42.8	21.5
EPS	(5.7)	(30.9)	62.5	42.8	21.5
Profitability (%)					
EBITDA margin	30.4	34.7	35.4	25.5	23.4
EBIT margin	16.6	17.8	21.3	16.7	15.8
Pretax margin	18.5	17.9	21.4	16.8	15.9
Net Profit margin	12.1	12.8	15.7	12.7	12.0
ROA	7.3	6.1	8.2	9.2	9.5
ROE	15.3	10.3	14.6	17.6	17.9
Stability					
Gross debt/equity (%)	62.4	39.5	47.2	55.7	53.7
Net debt/equity (%)	48.0	28.7	36.0	44.2	42.1
Int. coverage (x)	7.2	8.6	12.4	15.6	17.3
Int. & ST debt coverage (x)	0.6	0.7	1.0	1.3	1.6
Cash flow int. coverage (x)	13.2	11.9	9.7	6.0	11.0
Cash flow int. & ST debt (x)	1.1	1.0	0.8	0.5	1.0
Current ratio (x)	1.1	1.4	1.4	1.7	1.8
Quick ratio (x)	1.0	1.3	1.3	1.6	1.8
Net debt (\$S\$m)	29.2	25.8	36.9	53.6	60.5
Per share data (Scts)					
EPS	3.8	2.6	4.2	6.1	7.4
CFPS	6.3	5.0	4.5	3.1	6.1
BVPS	18.0	26.6	30.4	35.9	42.6
SPS	20.9	20.5	27.0	47.8	61.2
EBITDA/share	6.4	7.1	9.6	12.2	14.3
DPS	0.3	0.3	0.5	0.7	0.8

Source: Company data, Kim Eng estimates

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