

INDIA

Punj Lloyd

5 February 2007

PUNJ IN Outperform

Stock price as of 01 Feb 07	Rs	1,019.40
12-month target	Rs	1,315.00
Upside/downside	%	+29.0
Valuation - EV/EBITDA	Rs	1,315.00

GICS sector	capital goods	
Market cap	Rs m	53,263
30-day avg turnover	US\$ m	9.78
Market cap	US\$m	1,210
Number shares on issue	m	52.25

Investment fundamentals

Year end 31 Mar		2006A	2007E	2008E	2009E
Total revenue	m	16,846	50,001	73,257	89,816
EBITDA	m	1,909	3,333	6,118	8,361
EBITDA growth	%	-9.6	74.6	83.6	36.7
Recurring profit	m	814	2,029	3,682	5,445
Reported profit	m	555	1,554	2,574	3,808
Adjusted profit	m	538	1,539	2,574	3,808
EPS rep	Rs	17.34	29.76	49.29	72.92
EPS adj	Rs	18.56	29.48	49.29	72.92
EPS adj growth	%	513.7	58.8	67.2	48.0
PE adj	x	54.9	34.6	20.7	14.0
ROA	%	6.6	8.1	11.2	12.0
ROE	%	6.6	12.9	18.4	22.3
EV/EBITDA	x	30.6	17.5	9.5	7.0
Net debt/equity	%	39.6	42.8	81.1	84.4
Price/book	x	4.7	4.2	3.5	2.8

PUNJ IN rel SENSEX performance, & rec history



Source: Datastream, Macquarie Research, February 2007 (all figures in INR unless noted)

Analyst

Gopal Ritolia

91 22 6653 3055

gopal.ritolia@macquarie.com

Stellar growth ahead

Event

- We initiate coverage on Punj Lloyd (PL) with an Outperform rating and 12-month target price of Rs1,315. Our target price is derived from the average of mid-sized peer EV/EBITDA multiple of 10.5x on FY09E. PL is on the cusp of explosive growth driven by strong order inflows and a huge expansion in capability set.

Impact

- Graduating to the big league.** PL is consolidating its position as the second largest E&C player in India. The widening gap in revenues with respect to other mid-sized players is only a small part of the story. More importantly, it is increasing the capability gap. The Rs13bn offshore platform contract from ONGC is a case in point where it broke L&T's virtual monopoly in the sector.
- Fastest growth driven by huge order inflows.** PL has fully exploited the capex upsurge in the core areas of competence – pipeline and petrochemical projects in overseas markets and the uptick in domestic infrastructure spend. Book-to-bill ratio of 3.7x as at end 3QFY07, driven by order intake of Rs125bn over FY06-07 is expected to translate into 61% revenue CAGR over FY06-09E.
- Profits expected to double in two years.** Decline in depreciation and interest costs as the proportion of revenues should drive an expansion in net margins, driving 94% CAGR in profits over FY06-09E. Increasing asset utilization efficiency should drive an improvement in profitability ratios.
- Acquisition triggers new growth avenues.** Recently acquired SembCorp E&C has significant EPC experience in a large number of high growth sectors like upstream oil & gas, SEZs and airports where PL did not have a presence. This should result in significant expansion in the addressable market for PL.
- Geographic diversification reduces risk.** PL has the most diversified order book when compared to domestic E&C peers. Overseas projects account for more than one-third of its order book. This makes the order book resilient to vagaries of the capex cycle in a particular geography.

Price catalyst

- 12-month price target: Rs1,315.00 based on a EV/EBITDA methodology.
- Catalyst: Strong revenue growth driven by recent wins and continued order inflows from new sectors

Action and recommendation

- The stock trades at PER of 20.7x on FY08E earnings – a significant discount to L&T trading at an adjusted PER of 28.7x and a slight premium to mid-sized peers at 18.4x. We expect significant acceleration in growth as revenues from recent big ticket wins kick in. We recommend Outperform with a price target of Rs1,315, offering 29% upside from current levels.

Please refer to the important disclosures on inside back cover of this document, or on our website www.macquarie.com.au/research/disclosures.

Company profile

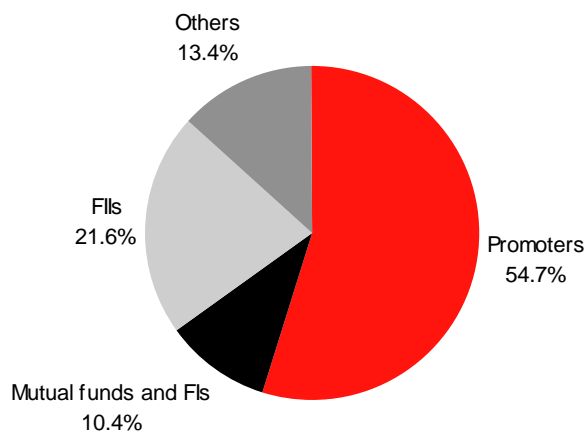
Punj Lloyd (PL) is a Delhi-based engineering construction company. Its main lines of business are offshore and onsite pipelines, oil & gas terminals, process facilities for the oil & gas industry and civil infrastructure construction. The company executes projects mainly in the Middle East, the Caspian Sea, South-East Asia and South Asia. It is gradually increasing its geographic presence and has recently won large orders in Africa.

It was incorporated in 1988 as Punj Lloyd Engineering Private Ltd. It was formed through the transfer of Punj Sons Pvt Ltd's engineering and general construction division, a part of the Punj group of companies, which has been operational since 1954. The name was subsequently changed to Punj Lloyd and the company first went public in 1992. The company was subsequently delisted and again went public in December 2005. Atul Punj is the current chairman & managing director. The promoter group holds a 54.67% stake in the company.

The company is focussed on the energy industry, undertaking projects for Indian and international energy majors across diverse geographies. It has significant expertise in pipeline construction; this segment contributed around half of FY06 consolidated revenues and 37% of the current order book.

To augment its engineering & project management skills and transform itself into a complete EPC player, the company recently acquired Singapore based SembCorp and its UK based subsidiary Simon Carves. SembCorp has significant E&C capabilities ranging from master planning to detailed engineering design to project & construction management across a wide variety of segments including speciality buildings, industrial parks, airports, jetties, mass rapid transport systems and tunnelling. Simon-Carves has significant EPC capabilities in petrochemical and refinery plants.

Fig 1 Shareholding pattern



Source: Company data, Macquarie Research, January 2007

Stellar growth ahead

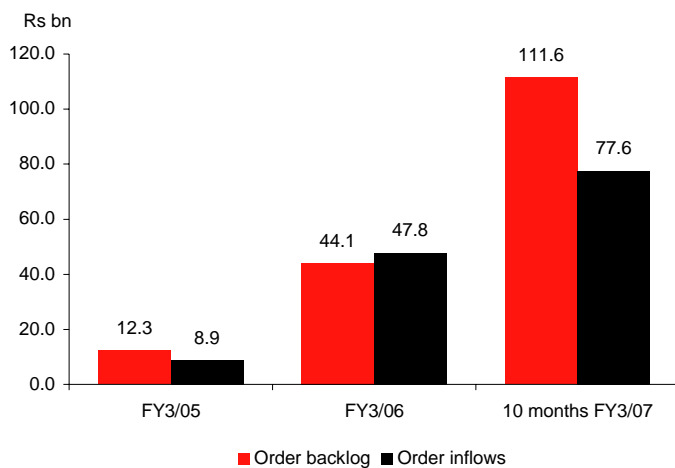
We initiate coverage on Punj Lloyd (PL) with an Outperform rating and 12-month target price of Rs1,315. Our target price is derived from an EV/EBITDA of 10.5x on FY09E. The target multiple is in line with adjusted EV/EBITDA multiples of mid-sized peers on FY08 and a 12.5% discount to industry leader, L&T.

PL is on the cusp of explosive growth, driven by a strong order book position and huge expansion in capability set. The company's growth outlook appears much brighter than those of its peers. We expect PL to enter the big league and pull ahead of mid-sized peers both in size and competencies. Also, lower dependence on domestic order inflows makes the growth momentum more robust. However, we would wait for more evidence of consistent execution at a higher scale before according a valuation premium to account for the superior growth.

Expect industry leading growth as order inflows are on a roll

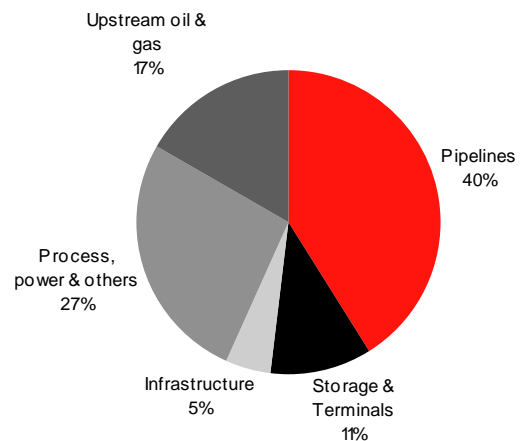
Punj Lloyd's order book has swelled over the last seven quarters. Order inflows worth Rs47bn in FY06 and Rs77.6bn in FY07 to date have resulted in a seven-fold increase in order book from Rs12.2bn at the beginning of FY06 to Rs102bn currently. This translates into 4.2x trailing twelve months revenues as at end 3QFY07.

Fig 2 Order inflows and backlog position



Source: Company data, Macquarie Research, January 2007

Fig 3 Order inflows by sector in FY07



Source: Company data, Macquarie Research, January 2007

PL has enjoyed huge order inflows in FY07 on account of:

- Buoyancy in sectors of traditional strength like pipelines and terminals. These sectors have contributed about a half of order inflows during FY07. Expansion into newer geographies like Africa has helped the order intake momentum. During the year, the company has won large pipeline orders worth Rs13.3bn from the Libyan national oil company.
- Entry into new sectors like upstream oil & gas. Helped by SembCorp's significant expertise and prequalification, the company has broken L&T's virtual monopoly in domestic orders in this sector.
- Focus on bidding for large projects. The average size of projects won during FY07 amounts to US\$100m as compared to US\$30m prior to FY07. The company intends to further increase the average size to US\$200m.

The strong order book position and relatively shorter execution cycle of major orders as compared to infrastructure projects should translate into industry leading growth over the next couple of years. **We expect 61% CAGR in revenues over FY06-09E.**

Graduating to the big league

Punj Lloyd intends to become a large global E&C player and has set a target of becoming one of top five global EPC companies in the next five years. The target might be too steep to be realistic but it does underline PL's strategic intent. Together with SembCorp, Punj Lloyd has the widest range of EPC capabilities across sectors among Indian peers. It is increasing the capability gap vis-à-vis mid-cap peers and fast catching up with industry leader, L&T.

Fig 4 Order book and capability comparison of Indian E&C companies

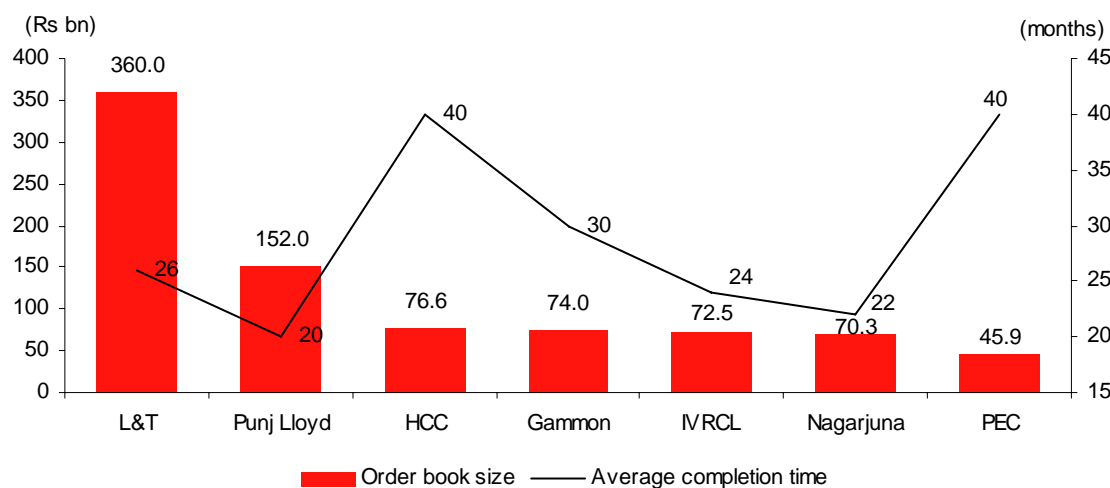
Company	Capabilities									
	Upstream oil & gas	Process plants	Pipelines & terminals	SEZs	MRTS	Airports	Thermal power	Hydropower	Civil	International orders
Punj Lloyd	x	x	x	x	x	x	x		x	x
L&T	x	x	x	x	x	x	x	x	x	x
HCC			x		x		x	x	x	
Gammon			x				x	x	x	x
PEC								x	x	
IVRCL									x	
Nagarjuna									x	x

Source: Macquarie Research, January 2007

The recent US\$290m EPC contract from ONGC for an offshore platform is an example of PL's growing stature as a complete E&C player. Prior to this win, L&T had a virtual monopoly on ONGC's offshore platform contracts – it was the only domestic player present in this segment. With this win, the company has broken into a large, high-margin segment with few domestic competitors.

Though FY06 revenues for PL are comparable to that of mid-sized peers, it enjoys a much larger order book position. Also the execution cycle is much shorter as projects in the company's main area of operation – pipelines, tankages and process plants – have a completion time of 15-24 months as compared to 24-30 months for infrastructure projects. This should result in the company pulling way ahead of mid-cap peers over the next couple of years with the revenue gap in line with capability difference.

Fig 5 Order book position and average execution time



Punj Lloyd order book is inclusive of its 100% owned sub Sembawang E&C.

HCC's order book excludes the Rs19bn Sawalkote hydropower project.

Source: Company data, Macquarie Research, January 2007

Geographical diversification reduces leverage to domestic capex cycle

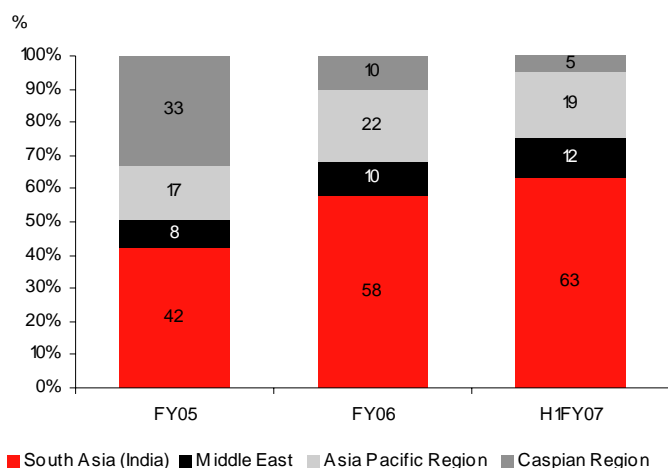
Punj Lloyd has the widest geographical footprint amongst Indian E&C companies. Overseas contracts make a significant contribution to PL's revenues and order inflows. International projects accounted for:

- ~40% of revenues during last two fiscal years – FY05 and FY06
- 41% to order inflows in FY07
- 37% of the current order book

This is by far the largest exposure to overseas markets for an Indian E&C player and is almost double that of next most diversified player, L&T where international projects account for ~20% of the revenues and order inflows.

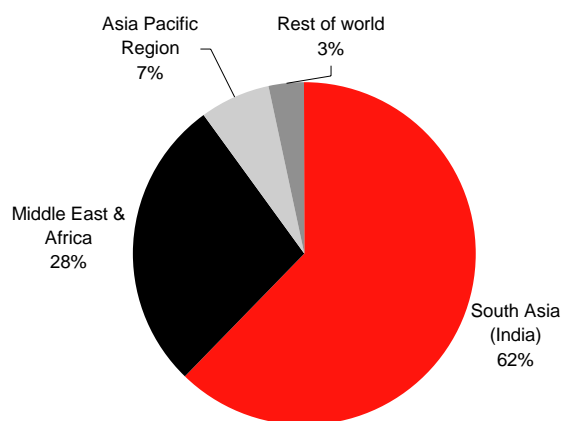
It has built significant local presence in the oil producing regions of Middle East, Caspian Sea and South East Asia. Recent large order wins in Libya would consolidate its position in Africa. Acquisition of SembCorp E&C would further strengthen its local presence in Southeast Asia and increase PL's coverage to new geographies like China, Iran and the UK.

Fig 6 Geographical break-up of revenues



Source: Company data, Macquarie Research, January 2007

Fig 7 Current order book composition by region



Source: Company data, Macquarie Research, January 2007

Wider geographical coverage not only expands the exploitable opportunity set but also decreases the leverage to domestic investment cycle. Any delay in fresh project awards by domestic agencies can be compensated by international order inflows, thereby reducing volatility in order intake. Also, a wider choice of projects allows more headroom in bidding for projects with better profitability.

Order inflow momentum to sustain as addressable market increases

To augment its engineering & project management skills and transform itself into a complete EPC player, PL acquired Singapore based SembCorp E&C (since renamed Sembawang E&C) and its UK based subsidiary Simon Carves for a consideration of Rs1173m.

Sembawang E&C together with its subsidiaries have significant capabilities ranging from master planning to detailed engineering design to project & construction management across a wide variety of segments including:

- Upstream oil & gas
- Petrochemical and refinery process plants
- Speciality buildings, industrial parks and SEZs
- Airports, jetties and seaports
- Mass rapid transport systems

Before this acquisition, PL's main competency lay in pipelines & storage construction for oil & gas sector and civil and infrastructure sectors. This acquisition significantly broadens the spectrum of capabilities for the company. Order inflows over the last two years have been driven by the traditional strongholds of the company. We expect the newer sectors to drive order flow momentum over the medium term. The recent large ONGC contract is a case in point. These sectors are expected to commit fresh investments of Rs2,340bn over the next three years in the domestic market.

Fig 8 New domestic opportunities addressable over next three years

Sector	Investments (Rs bn)	% addressable	Order flows (Rs bn)
ONGC capex	400	40	160
Reliance petrochemical and E&P	200	40	80
Others	250	40	100
Ports	400	50	200
Airports	90	50	45
Urban Infrastructure	750	60	450
SEZs and speciality buildings	250	80	200
Total	2340	360	1235

Source: Macquarie Research, January 2007

PL can exploit the newly acquired capabilities in the overseas markets as well. For example, Simon-Carves has been selected as the EPC contractor for GBP154m ethanol plant in the UK. Simon-Carves can now farm out a part of construction to PL rather than outsourcing the entire job as was the case earlier.

Enhanced capabilities would also help **Dayim Punj Lloyd Engineering** – the 49% owned JV with Prince Khalid Bin Bandar Bin Sultan of Saudi Arabia – corner a bigger chunk of the US\$33bn investment proposed for the King Abdullah City near Jeddah. Sembawang's skills in speciality buildings, sewerage systems and MRTs would be especially useful. In addition to this mega project, the prince would help the JV identify opportunities in the oil & gas, petrochemical and urban infrastructure sectors as well.

Focus on large projects increases scalability

The company has increased focus on increasing the average ticket size of individual orders. The company had an average ticket size of US\$30m prior to the current fiscal year. FY07 orders have an average ticket size of US\$100m. Large orders have accounted for 87% of the total inflows in FY07. The company intends to increase the average contract size to US\$200m. Increase in size of individual projects reduces scalability issues as management resources required per dollar of revenue decreases.

Fig 9 Pre-dominance of large ticket orders in FY07 inflows

Project	Cost (Rs bn)	Location	Agency	Award date
Heera Redevelopment project	13.0	Mumbai	ONGC	Jan-07
Hydrocracker unit	8.6	Haldia	IOCL	Nov-06
500 MW Chhabra Thermal power plant	8.2	Rajasthan	State PSU	Aug-06
Doha urban pipeline relocation project	8.0	Doha, Qatar	Qatar Petroleum	Nov-06
Tripoli to Melita gas pipeline	6.9	Tripoli, Libya	Sirte Oil Co	Aug-06
El Khoms Tripoli gas pipeline	6.5	Tripoli, Libya	Sirte Oil Co	Aug-06
Pipeline & electrical lines	3.6	Kazakhstan	Agip KCO Kazakhstan	Jun-06
Naphtha cracker storage facilities	3.5	Panipat	IOCL	Sep-06
Offsites and utilities for Yemen LNG	3.2	Yemen	Yemgas	Aug-06
Lalsot to Kota Road in Rajasthan	3.0	Rajasthan	RIDCOR	Jun-06
Hydrogen generation unit	3.0	Haldia	IOCL	Nov-06
Total large projects	67.5		as % of total inflows	87.0

Source: Company data, Macquarie Research, January 2007

Financials

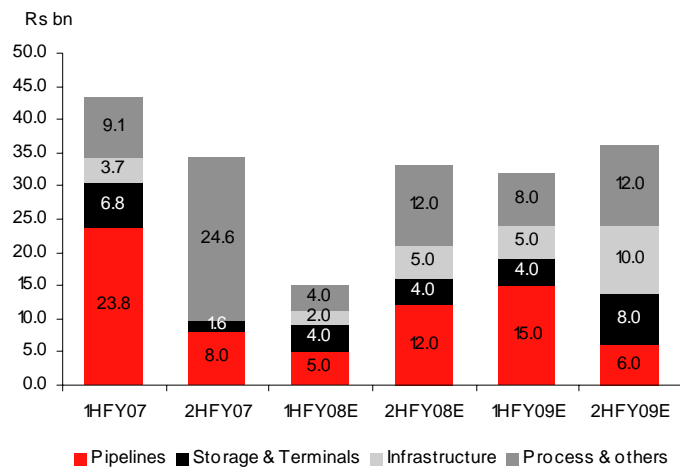
We estimate revenue CAGR of 61% over FY06–09

PL has witnessed huge order inflows of Rs125bn over the last seven quarters, driven by an uptick in oil & gas investments both in the domestic and global markets. The company has a strong order book position of Rs102bn which translates into 4.2x trailing twelve months revenues as at end 3QFY07.

We have assumed an order inflow of Rs116bn over FY08-09 in our model. There exist upsides to our inflow assumptions as we expect the order intake momentum to remain strong over FY08-09 driven by:

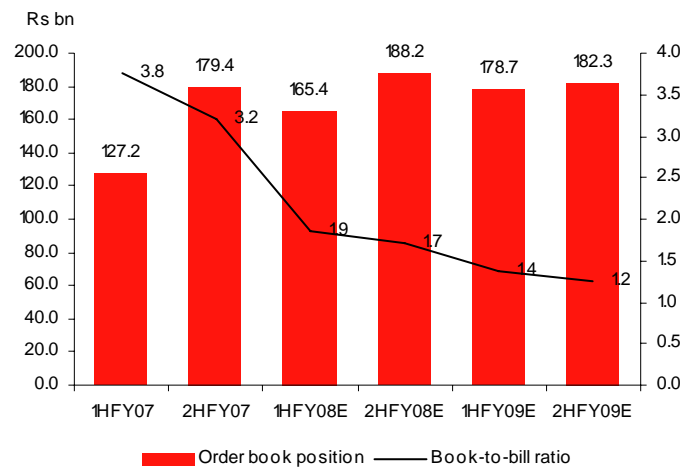
- Continued upturn in the domestic capex cycle
- Strong outlook for oil & gas investments in Middle East and Africa
- Expansion of addressable market for PL as skill sets increase

Fig 10 Order intake over FY07-09E



Source: Company data, Macquarie Research, January 2007

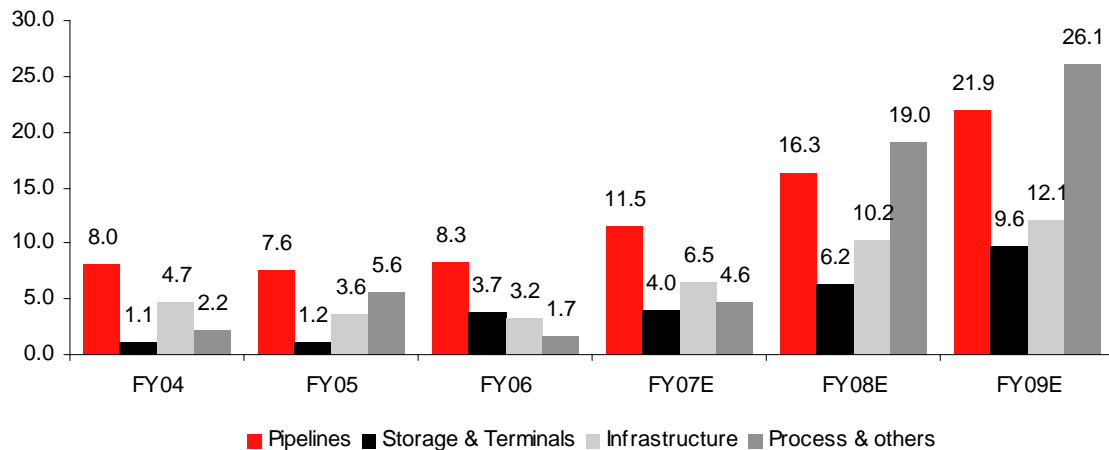
Fig 11 Order book position



Source: Company data, Macquarie Research, January 2007

Driven by strong current order book position, continued robustness in order inflows and shorter execution cycle of 15-20 months in the largest segment of pipeline and oil & gas sector, we expect revenue CAGR (excluding Sembawang E&C revenues) of 61% over FY06-09E.

Fig 12 Revenues by segment



Source: Company data, Macquarie Research, January 2007

EBITDA growth to track revenue growth

We estimate EBITDA margins (excluding Sembawang E&C) to remain stable at FY06 levels. With order inflows driven by pipeline and process plant projects and PL's continued focus on these sectors, we expect revenues from the relatively low margin infrastructure and civil projects to remain below 20% over FY07E-09E. Increasing complexity and ticket size of projects in the core segments are likely to drive an increase in margins. However, expansion into new geographies and segments could potentially put pressure on margins. Hence, we estimate margins to stay stable in the forecast period. Consequently, EBITDA CAGR during FY06-09E at 59.8% should track revenue growth over the period.

Fig 13 Revenue mix

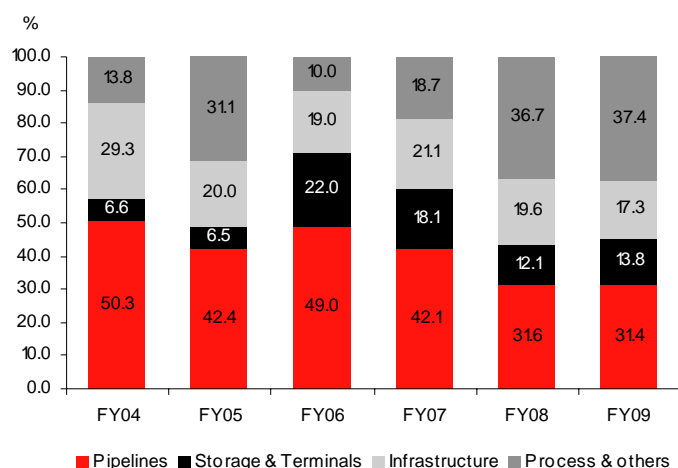
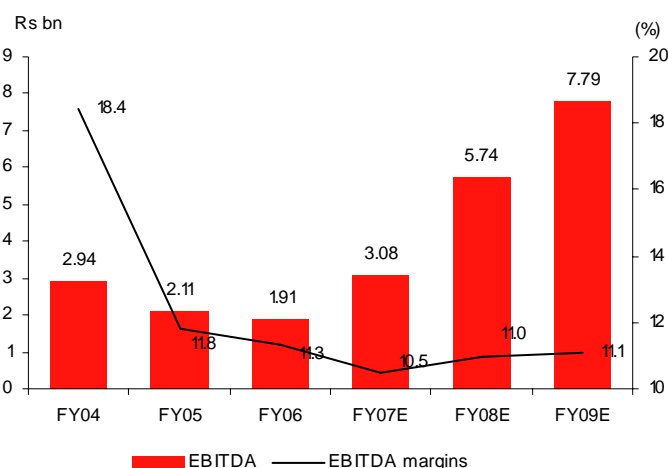


Fig 14 EBITDA margins



Source: Company data, Macquarie Research, January 2007

Source: Company data, Macquarie Research, January 2007

Sembawang E&C profit contribution a while away

PL acquired Sembawang E&C (SEC) in June 2006 for expanding its competency set rather than adding to the bottom line. SEC has a large revenue base but very low profitability as it farms out actual construction contracts and only does the engineering and construction management in-house. Profitability was also hit by the fact that the company was in sell-off mode for a couple of years prior to the acquisition. CY05 revenues at Rs32.2bn were much higher than that of PL but the company had virtually no profits.

We expect margins to improve going forward as the PL streamline operations, progressively shifts engineering and design functions from high cost geographies like Singapore and the UK and bids for projects with better margins. However, this would take a while as the major proportion of revenues in the next couple of years would be driven by the existing Rs41bn low-margin order book. In addition, changes in order intake profile would take some time. This would also have an impact on revenue growth as well with the company potentially eschewing some low-margin projects.

Fig 15 Sembawang E&C revenues and EBITDA

	FY07E (10 months)	FY08E	FY09E
Revenues (Rs m)	20672	20963	19552
Revenue growth (%)		1.4	-6.7
EBITDA	250	374	568
EBITDA margins (%)	1.2	1.8	2.9

Source: Macquarie Research, January 2007

Net profit growth should lead revenue growth

Net margins (excluding Sembawang E&C) should expand by 210 bp over FY06-09E as interest and depreciation costs decline as proportion of revenues. Depreciation costs as proportion of revenues have been high in the past on account of low asset utilization. We expect this proportion to come down as asset efficiency increases going forward. Repayment of high interest rate bearing debt after recent capital raising would bring down interest costs. Consequently, we estimate net profits CAGR of 94% over FY06-09E driven by 210 bp expansion in net margins.

Fig 16 Consolidated profit & loss account

(Rs m)	FY05	FY06	FY07E	FY08E	FY09E
Revenues	17,900	16,846	50,001	73,257	89,816
Contract revenues ex SEC	17,035	15,982	28,714	51,694	69,665
Other operational revenues	584	564	200	200	200
Internet Services	281	301	415	399	399
Sembawang			20,672	20,963	19,552
Expenses	15,788	14,937	46,668	67,139	81,455
EBITDA	2,112	1,909	3,333	6,118	8,361
EBITDA excl SEC	2,112	1,909	3,083	5,744	7,793
Sembawang EBITDA			250	374	568
Depreciation & amortization	887	604	1,063	1,489	1,729
EBIT	1,225	1,306	2,270	4,629	6,632
Other Income	374	303	719	400	400
Interest	1,333	794	960	1,347	1,587
PBT	265	814	2,029	3,682	5,445
Tax	194	291	493	1,105	1,634
PAT	71	523	1,536	2,578	3,812
Share of associates profits	3	8	0	0	0
Minority profits	-2	-7	-3	4	4
Net profit	76	538	1,539	2,574	3,808
Interest on debt	66	15	15	0	0
Other extraordinary and non-recurring	864	2	0	0	0
Reported profit	1,006	555	1,554	2,574	3,808
EPS (Rs)	3.0	10.3	29.5	49.3	72.9
Margins (%)					
Overall EBITDA margins (%)	11.8	11.3	6.7	8.4	9.3
EBITDA excl SEC	11.8	11.3	10.5	11.0	11.1
SEC EBITDA			1.2	1.8	2.9
PBT margin	1.5	4.8	4.1	5.0	6.1
PAT margin	0.4	3.2	3.1	3.5	4.2
Tax rate	73.1	35.8	24.3	30.0	30.0
Growth (%)					
Revenues	12.3	-5.9	196.8	46.5	22.6
PL Revenues		-5.9	74.1	78.3	34.4
Overall EBITDA	-28.1	-9.6	74.6	83.6	36.7
PL EBITDA	-28.1	-9.6	61.5	86.3	35.7
SEC EBITDA				49.5	51.7
PAT	-92.8	604.7	186.2	67.2	48.0

Source: Company data, Macquarie Research, January 2007

Return ratios should improve as asset efficiency increases

Low asset utilization rates have had a dampening effect on the return ratios in the past. Slower order inflows in the past couple of years resulted in lower order book size as compared to the asset base created by the company. This impacted the turnover and return ratios. Strong order inflows over FY06-07 have corrected that situation and should drive efficiency in asset utilization.

Fig 17 Consolidated balance sheet

(Rs m)	FY05	FY06	FY07E	FY08E	FY09E
Sources of funds					
Shareholders' funds	5,102	11,215	12,710	15,224	18,972
Share Capital	252	522	522	522	522
Reserves & Surplus	4,850	10,693	12,188	14,702	18,450
Share premium account	2,539	7,977	7,977	7,977	7,977
Other reserves	2,310	2,716	4,210	6,725	10,473
Minority Interest	17	9	9	9	9
Total loan Funds	7,187	5,550	12,112	19,112	22,612
FCCB			5,563	5,563	5,563
Deferred tax liability	618	607	607	607	607
Total funds employed	12,924	17,381	25,438	34,952	42,200
Application of funds					
Gross block	7,413	9,070	14,570	17,070	19,570
Less: Depreciation	2,762	3,280	4,343	5,831	7,560
Net Block	4,651	5,790	10,227	11,238	12,010
Capital - Work In Progress	481	1,230	1,230	1,230	1,230
Net Fixed Assets	5,133	7,020	11,457	12,469	13,240
Preoperative Expenditure	98	156	156	156	156
Investments	259	416	1,916	1,916	1,916
Current Assets	11,288	15,464	19,775	34,574	45,974
Inventory	5,510	8,043	9,833	17,704	23,858
Debtors	3,364	4,024	5,900	9,914	13,360
Cash & bank balances	432	1,106	1,110	1,191	1,022
Other Current Assets	54	111	100	100	100
Loans & Advances	1,928	2,179	2,832	5,665	7,635
Current liabilities & provisions	3,855	5,676	7,867	14,163	19,086
Net Current Assets	7,433	9,788	11,908	20,411	26,888
Total funds applied	12,924	17,381	25,438	34,952	42,200
Balance sheet ratios					
Debt:Equity	1.4	0.5	1.0	1.3	1.2
Fixed Asset Turnover	3.8	2.9	2.8	4.6	5.8
Operating Cycle (days)	142.8	188.1	137.3	135.7	135.5
Inventory days	112.4	174.3	125.0	125.0	125.0
Debtor days	68.6	87.2	75.0	70.0	70.0
Loans & advance days	39.3	47.2	36.0	40.0	40.0
Current liabilities days	78.6	123.0	100.0	100.0	100.0
Return ratios					
EBIT/asset employed	8.5	6.9	8.8	12.5	13.7
ROE	2.2	6.6	12.9	18.4	22.3

Source: Company data, Macquarie Research, January 2007

Valuations

We have arrived at our 12-month price target of Rs1315 based on an EV/EBITDA multiple of 10.5x on FY09E EBITDA. The target multiple is in line with adjusted EV/EBITDA multiples of mid-sized peers on FY08 and a 12.5% discount to industry leader, L&T.

Fig 18 Peer Valuations

Company	Ticker	Price (Rs)	Rating	Target (Rs)	EV / EBITDA (x)		Adj EV / EBITDA (x)		PER (x)		Adj PER (x)	
					FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E
Larsen & Toubro	LT IN	1600	UP	1252	32.6	25.3	25.4	19.7	45.5	37.4	34.9	28.7
IVRCL	IVRC IN	427	OP	480	26.5	17.0	13.7	8.8	41.5	25.9	21.9	13.6
Nagarjuna Const	NJCC IN	215	OP	205	17.7	13.1	14.9	11.1	26.3	19.3	22.0	16.1
Hindustan Const	HCC IN	143	UP	111	19.7	15.1	18.4	14.1	44.8	32.7	41.1	30.0
Patel Engineering	PEC IN	464	OP	500	17.3	12.6	12.9	9.3	26.3	19.2	19.2	14.0
Average ex L&T					20.3	14.5	15.0	10.8	34.7	24.2	26.0	18.4
Punj Lloyd	PUNJ IN	1019	OP	1315	19.4	10.6	19.4	10.6	34.2	20.7	34.2	20.7

Prices as on February 1, 2007

UP : Underperform; OP : Outperform

Adjusted EV / EBITDA and PER calculated by stripping out subsidiary, BOT and real estate valuations

Source: Macquarie Research, January 2007

PL is on the cusp of explosive growth driven by strong order book position and huge expansion in capability set. Growth outlook for the company is much brighter as compared to peers. We expect the company to enter the big league and pull ahead of mid-sized peers both in size and competencies. Also, lower dependence on domestic order inflows makes the growth momentum more robust. However, we would wait for more evidence of consistent execution at a higher scale before according a valuation premium to account for superior growth.

Fig 19 Valuation summary

	(Rs m)
FY09E EBITDA	8,361
EV/EBITDA (x)	10.5
EV/EBITDA (x)	87,790
Debt as at end FY08E	19,112
Equity value	68,678
No. of shares (m)	52.2
Price (Rs)	1315

Source: Macquarie Research, January 2007

At our 12-month target price of Rs1,315, the stock would trade at a PER of 18.0x on FY09E.

Fig 20 PL's valuation metrics at our target price

	FY06	FY07E	FY08E	FY09E
EBITDA (Rs m)	1909	3333	6118	8361
PAT (Rs m)	523	1536	2578	3812
EPS (Rs m)	10.30	29.48	49.29	72.92
EV/EBITDA (x)	46.0	26.3	14.3	10.5
PER (x)	127.7	44.6	26.7	18.0

Source: Macquarie Research, January 2007

Key risks

Slower-than-expected ramp-up in road projects

PL has a large exposure to NHAI road projects in the states of Assam and Rajasthan with projects won before FY06 in these geographies totalling Rs21.2bn. Implementation was tardy in these projects due to right-of-way issues and as result revenue booking from these projects were low during 1HFY07. The management has indicated that these issues have since been resolved and we expect revenues from these projects to ramp up.

Slower-than-expected ramp up in these projects can impinge on performance over the next couple of quarters. However, the proportion of these orders in the total order book has reduced considerably as the company has won large orders in the oil & gas sector. Hence, leverage of these projects on revenue growth has also reduced. Also, increased emphasis by the planning authorities to complete the awarded projects rather than awarding new projects should help resolve any residual right-of-way issues.

Legacy issues in the balance sheet

Debtors on the balance sheet include an amount of Rs378m due from Spie Capag-Petrofac (SCPIL). PL had executed a pipeline project for SCPIL in Georgia. The company had raised variation orders of Rs1.49bn against SPCIL. SPCIL had raised counterclaims of Rs477m and served a notice to the company for terminating the contract. The company has initiated arbitration proceedings against the notice. The auditors have reserved an opinion on the outcome of the dispute.

The company had executed projects for IOCL on back-to-back subcontract from Petrofac International Limited (PIL). IOCL has withheld payment to PIL, which in turn has withheld payment of Rs297.7m to PL. The company has initiated arbitration proceedings against PIL. The company has taken a credit for interest on the outstanding amount of Rs14.6m in FY06 and Rs65.7m during FY05. The credit of interest is not in accordance with AS-9 on revenue recognition. The auditors have qualified the balance sheet with respect to these matters.

In addition to these qualifications, amounts withheld by customers and disputed by the company aggregating Rs766.3m are also included as part of debtors. As a result of these disputes, amounts totaling Rs1442m out of total debtors of Rs4,024m as per FY06 balance sheet are under arbitration proceedings. Any adverse rulings in these cases could result in write-off charges going forward. However, these charges would not have an impact on future cash flows or recurring profits.

Business segments

PL has four main construction divisions: 1) oil & gas pipelines, 2) Storage tanks & terminals, 3) process plants, and 4) infrastructure and civil works. The company has made an entry into the upstream oil & gas sector with a recent large contract win from ONGC. The company also has a small broadband business.

Pipelines are the largest segment, accounting for around half of FY06 revenues and 37% of 1HFY07 order backlog. Driven by strong order inflows from the road sector during FY05 and FY06, infrastructure & civil works has the second largest share in the order book at 30%. With right-of-way issue resolved for projects in the segment, we expect a pick-up in segment revenues from 2HFY07 onwards.

To augment its engineering & project management skills and transform itself into a complete EPC player, the company acquired Singapore based SembCorp E&C (since renamed Sembawang E&C) and its UK based subsidiary Simon Carves in June 2006.

Sembawang E&C has significant capabilities ranging from master planning to detailed engineering design to project & construction management across a wide variety of segments including speciality buildings, industrial parks, airports, jetties, mass rapid transport systems and tunnelling. Simon-Carves has significant EPC capabilities in petrochemical and refinery plants. This acquisition would result in significant expansion in addressable market for the company and help maintain the strong order intake momentum.

Pipelines – Best-in-class capabilities

PL has extensive execution experience in pipeline construction, having laid around 7,730km of cross-country pipelines in various regions across the world. It has capabilities to execute EPC projects in difficult terrains and adverse climatic conditions. It is one of the few companies anywhere in the world with expertise in laying large-diameter gas pipelines and operational experience in shallow water and swampy terrain.

Given the capital intensity of the business, the company has increased focus on larger length and larger diameter pipelines. Margins in this segment are significantly higher on account of the lower competition and the company's extensive experience in executing such projects.

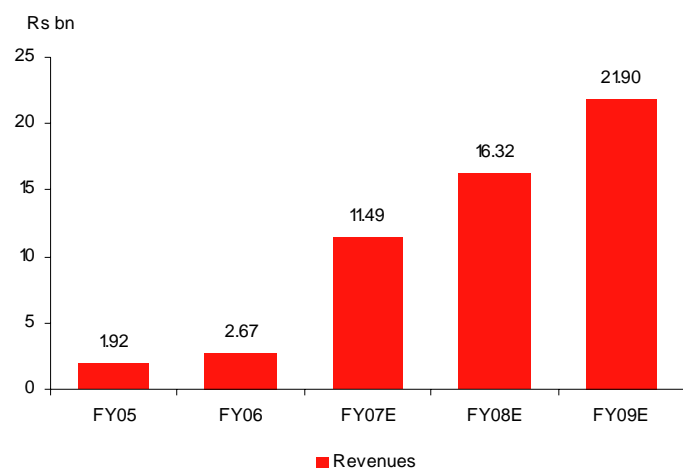
Fig 21 Major pipeline orders intake in FY07 – focusing on larger projects

Project Name	Cost	Location	Agency
Doha urban pipeline relocation project	8037	Doha, Qatar	Qatar Petroleum
Tripoli to Melita gas pipeline	6854	Tripoli, Libya	Sirte Oil Co
El Khoms Tripoli gas pipeline	6486	Tripoli, Libya	Sirte Oil Co
Pipeline from onshore facility	3573	Kazakhstan	Agip KCO - Agip Kazakhstan
Offsites and utilities for Yemen LNG project	3218	Yemen	Yemen LNG Co Ltd
Dabhol-Panvel pipeline	1642	Maharashtra	GAIL
Dahej Uran pipeline project	1383	Gujarat	GAIL

Source: Company data, Macquarie Research, January 2007

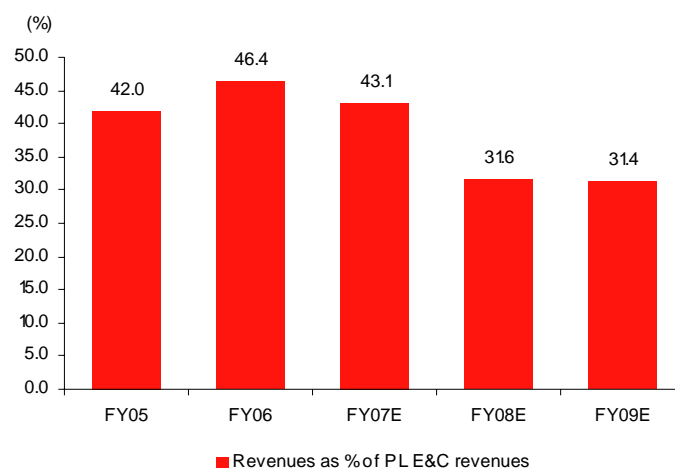
Pipelines are the largest segment, contributing around half of FY06 revenues. We expect pipelines to remain the most important segment for the company accounting for around two-fifths of revenues over the next couple of years. The segment contributed 41% to FY07 order inflows and 37% to 1HFY07 order backlog.

Fig 22 Pipeline revenues



Source: Company data, Macquarie Research, January 2007

Fig 23 Contribution to P&L overall E&C revenues



Source: Company data, Macquarie Research, January 2007

Storage tanks & terminals

In addition to best-in-class capabilities in pipeline laying, the company significant expertise in construction of storage & terminals. This enables it to offer a complete oil & gas transportation solution to clients. PL has constructed tankage and terminals with cumulative storage capacity of 6m cubic metres. The company has expertise to execute EPC contracts for various types of tanks and terminals used in the hydrocarbon sector, including cryogenic tanks for LNG and floating-roof storage tanks. The segment contributed to 22% to FY06. We expect this proportion to go down progressively as revenues from other segments grow faster. However, the segment would remain a key component of PL's capability in oil & gas sector.

Fig 24 Storage tank & terminals won during FY07

Project Name	Cost (Rs m)	Location	Agency
Naphtha cracker project storage facilities	3497	Panipat	IOCL
Dabhol LNG Terminal in JV with Whessoe UK	2093	Maharashtra	Ratnagiri Gas & Power
Bulk Liquid storage terminal	1638	Singapore	Horizon Terminal Ltd, UAE
Bulk Liquid storage	1170	Singapore	Helios Terminal Corporation

Source: Company data, Macquarie Research, January 2007

Process and power plants – thermal capacity addition plans augur well

EPC and turnkey execution capabilities in construction of process plants complete PL's expertise in oil & gas sector. The company has experience in executing contracts in a wide variety of application including gas compressor & process facilities, specialized process facilities for refineries like sulphur recovery, crude distillation, hydrocrackers and vacuum distillation units. The company can undertake the entire gamut of activities like fabrication of steel structures, erection of heavy equipment, piping, instrumentation, insulation and fireproofing services and civil works required for construction of process plants.

The company also has significant capabilities in thermal power plant construction. In this segment, it undertakes balance-of-work type of contracts where it can execute the entire construction contract except boilers and turbines. Contracts for new thermal power capacity totalling 40,000 MW are expected to be awarded over the next three years. Consequently, we expect robust order inflows from this segment.

The company has won large ticket size projects from this segment in FY07. The Rajasthan thermal power plant contract would help build pre-qualifications for much larger projects on the anvil.

Fig 25 Big ticket process and power plant contract wins in FY07

Project Name	Cost (Rs m)	Location	Agency
Hydrocracker unit (1.7 mmtpa)	8640	Haldia	IOCL
Hydrogen generation unit (70,000 tpa)	2990	Haldia	IOCL
2X250 MW Chhabra thermal plant	8230	Rajasthan	Vidyut Utpadan Nigam Ltd

Source: Company data, Macquarie Research, January 2007

Infrastructure – revenues should pick up as implementation ramps up

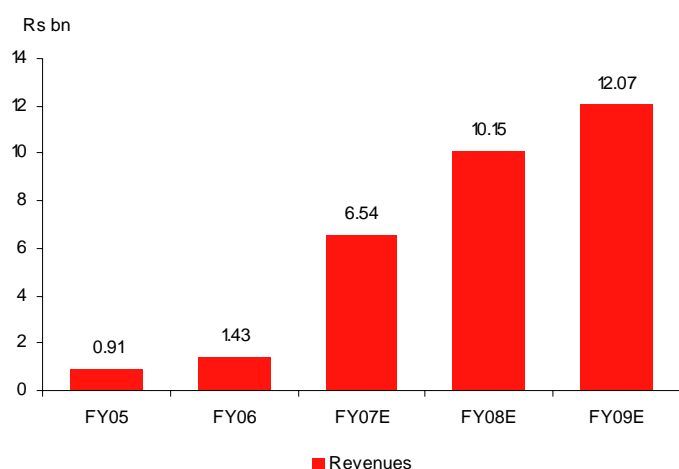
Infrastructure projects had the second largest share of the end-1HFY07 order book contributing 30% of the total order backlog. Highway projects in the state of Assam and Rajasthan accounted for bulk of the infrastructure order book. In addition to rich execution experience in NHAI road projects, it has also executed projects for the Delhi metro system. Sembawang's wide range of expertise in infrastructure and speciality building projects should help expand PL's span of activities in this sector.

Fig 26 Major ongoing infrastructure projects

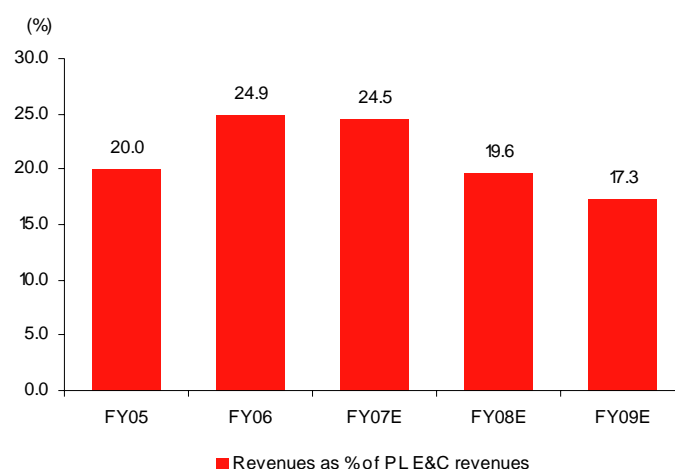
Project Name	Cost (Rs m)	Location	Agency
Assam road projects			
Guwahati-Nalbari NH-31 (AS-4)	1950	Assam	NHAI
Guwahati-Nalbari NH-31 (AS-5)	1750	Assam	NHAI
Nalbari-Bijni NH-31 (AS-8)	1420	Assam	NHAI
Nalbari-Bijni NH-31 (AS-9)	2000	Assam	NHAI
Lanka-Daboka NH-54 (AS-16)	2150	Assam	NHAI
Rajasthan road projects			
Kota-Chittorgarh (RJ-8) NH-76	4464	Rajasthan	NHAI
Hanumangarh to Ratangarh	2711	Rajasthan	RIDCOR
Ratangarh to Kishangarh	2275	Rajasthan	RIDCOR
Baran to Jhalawar	950	Rajasthan	RIDCOR
Lalsot to Kota Road in Rajasthan (LJ-1)	3020	Rajasthan	RIDCOR
Building structure for Medicity	860	Delhi	Global Health Pvt Ltd
Elevated via-duct in JV with Persys	710	Delhi	DMRC

Source: Company data, Macquarie Research, January 2007

Revenues from the sector were sluggish during 1HFY07 due to right-of-way issues in the Assam and Rajasthan highway projects. The management has indicated that these issues have been resolved and implementation should ramp-up in quarters ahead. We expect the company to concentrate on implementation in this sector and hence, order inflows are likely to remain sedate over the next three-four quarters before picking up. As a result, contribution of infrastructure revenues to total revenues is expected to decline over the next couple of years.

Fig 27 Infrastructure revenues

Source: Company data, Macquarie Research, January 2007

Fig 28 Contribution to P&L overall E&C revenue

Source: Company data, Macquarie Research, January 2007

Broadband services

The company has a small broadband division and owns around 15,000 km of optical fibre network near the National Capital Region. The division provides internet bandwidth, data centre and managed network solutions to both corporate and household sectors. The division is not performing well – it made losses of Rs74m on revenues of Rs310m in FY06. Performance has improved in FY07 – revenues have grown 39% YoY to Rs216m and losses have reduced to Rs29m during the 1HFY07. The company is exploring opportunities to hive-off this business.

Punj Lloyd (PUNJ IN, Outperform, Target price: Rs1,315.00)

Quarterly Results					Profit & Loss						
		3Q/07A	4Q/07E	1Q/08E	2Q/08E		2006A	2007E	2008E	2009E	
Revenue	m	14,333	15,771	18,618	18,621	Revenue	m	16,846	50,001	73,257	89,816
Gross Profit	m	3,647	4,034	4,374	4,389	Gross Profit	m	5,979	12,813	17,593	20,076
Cost of Goods Sold	m	10,686	11,736	14,244	14,232	Cost of Goods Sold	m	10,867	37,188	55,664	69,740
EBITDA	m	831	1,203	1,528	1,528	EBITDA	m	1,909	3,333	6,118	8,361
Depreciation	m	296	330	350	365	Depreciation	m	604	1,063	1,489	1,729
Amortisation of Goodwill	m	0	0	0	0	Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	0	0	0	0	Other Amortisation	m	0	0	0	0
EBIT	m	535	873	1,178	1,164	EBIT	m	1,306	2,270	4,629	6,632
Net Interest Income	m	-279	-299	-314	-329	Net Interest Income	m	-794	-960	-1,347	-1,587
Associates	m	0	0	0	0	Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0	Exceptionals	m	0	0	0	0
Forex Gains / Losses	m	0	0	0	0	Forex Gains / Losses	m	0	0	0	0
Other Pre-Tax Income	m	298	100	100	100	Other Pre-Tax Income	m	303	719	400	400
Pre-Tax Profit	m	554	673	964	934	Pre-Tax Profit	m	814	2,029	3,682	5,445
Tax Expense	m	-80	-202	-289	-280	Tax Expense	m	-291	-493	-1,105	-1,634
Net Profit	m	474	471	675	654	Net Profit	m	523	1,536	2,578	3,812
Minority Interests	m	6	-1	-1	-1	Minority Interests	m	15	4	-4	-4
Reported Earnings	m	483	474	674	653	Reported Earnings	m	555	1,554	2,574	3,808
Adjusted Earnings	m	479	470	674	653	Adjusted Earnings	m	538	1,539	2,574	3,808
EPS (rep)		9.25	9.08	12.90	12.51	EPS (rep)		17.34	29.76	49.29	72.92
EPS (adj)		9.18	9.01	12.90	12.51	EPS (adj)		18.56	29.48	49.29	72.92
EPS Growth yoy (adj)	%	72.2	249.9	159.4	97.9	EPS Growth (adj)	%	513.7	58.8	67.2	48.0
						PE (rep)	x	58.8	34.3	20.7	14.0
						PE (adj)	x	54.9	34.6	20.7	14.0
EBITDA Margin	%	5.8	7.6	8.2	8.2	Total DPS		0.00	0.00	0.00	0.00
EBIT Margin	%	3.7	5.5	6.3	6.2	Total Div Yield	%	0.0	0.0	0.0	0.0
Earnings Split	%	31.1	30.6	26.2	25.4	Weighted Average Shares	m	32	52	52	52
Revenue Growth	%	240.3	274.5	131.2	57.2	Period End Shares	m	52	52	52	52
EBIT Growth	%	63.8	167.4	267.3	114.7						
Profit and Loss Ratios					Cashflow Analysis						
		2006A	2007E	2008E	2009E		2006A	2007E	2008E	2009E	
Revenue Growth	%	-5.9	196.8	46.5	22.6	EBITDA	m	1,909	3,333	6,118	8,361
EBITDA Growth	%	-9.6	74.6	83.6	36.7	Tax Paid	m	-291	-493	-1,105	-1,634
EBIT Growth	%	6.6	73.9	103.9	43.3	Chgs in Working Cap	m	-1,681	-2,117	-8,421	-6,647
Gross Profit Margin	%	35.5	25.6	24.0	22.4	Net Interest Paid	m	-794	-960	-1,347	-1,587
EBITDA Margin	%	11.3	6.7	8.4	9.3	Other	m	303	719	400	400
EBIT Margin	%	7.8	4.5	6.3	7.4	Operating Cashflow	m	-554	482	-4,355	-1,106
Net Profit Margin	%	3.1	3.1	3.5	4.2	Acquisitions	m	-157	-1,500	0	0
Payout Ratio	%	0.0	0.0	0.0	0.0	Capex	m	-2,491	-5,500	-2,500	-2,500
EV/EBITDA	x	30.6	17.5	9.5	7.0	Asset Sales	m	0	0	0	0
EV/EBIT	x	44.7	25.7	12.6	8.8	Other	m	-128	18	-4	-4
Balance Sheet Ratios						Investing Cashflow	m	-2,775	-6,982	-2,504	-2,504
ROE	%	6.6	12.9	18.4	22.3	Dividend (Ordinary)	m	-60	-60	-60	-60
ROA	%	6.6	8.1	11.2	12.0	Equity Raised	m	5,701	0	0	0
ROIC	%	7.1	11.0	17.8	16.8	Debt Movements	m	-1,637	6,563	7,000	3,500
Net Debt/Equity	%	39.6	42.8	81.1	84.4	Other	m	0	0	0	0
Interest Cover	x	1.6	2.4	3.4	4.2	Financing Cashflow	m	4,004	6,503	6,940	3,440
Price/Book	x	4.7	4.2	3.5	2.8	Net Chg in Cash/Debt	m	674	3	82	-170
Book Value per Share		214.8	243.4	291.5	363.3						
					Balance Sheet						
		2006A	2007E	2008E	2009E		2006A	2007E	2008E	2009E	
Cash	m	1,106	1,110	1,191	1,022	Cash	m	1,106	1,110	1,191	1,022
Receivables	m	4,024	5,900	9,914	13,360	Receivables	m	4,024	5,900	9,914	13,360
Inventories	m	8,043	9,833	17,704	23,858	Inventories	m	8,043	9,833	17,704	23,858
Investments	m	2,595	4,748	7,581	9,550	Investments	m	2,595	4,748	7,581	9,550
Fixed Assets	m	7,020	11,457	12,469	13,240	Fixed Assets	m	7,020	11,457	12,469	13,240
Intangibles	m	0	0	0	0	Intangibles	m	0	0	0	0
Other Assets	m	268	257	257	257	Other Assets	m	268	257	257	257
Total Assets	m	23,056	33,305	49,115	61,286	Total Assets	m	23,056	33,305	49,115	61,286
Payables	m	5,387	7,348	13,230	17,829	Payables	m	5,387	7,348	13,230	17,829
Short Term Debt	m	0	0	0	0	Short Term Debt	m	0	0	0	0
Long Term Debt	m	5,550	6,550	13,550	17,050	Long Term Debt	m	5,550	6,550	13,550	17,050
Provisions	m	288	518	933	1,257	Provisions	m	288	518	933	1,257
Other Liabilities	m	607	6,169	6,169	6,169	Other Liabilities	m	607	6,169	6,169	6,169
Total Liabilities	m	11,832	20,585	33,881	42,305	Total Liabilities	m	11,832	20,585	33,881	42,305
Shareholders' Funds	m	11,215	12,710	15,224	18,972	Shareholders' Funds	m	11,215	12,710	15,224	18,972
Minority Interests	m	9	9	9	9	Minority Interests	m	9	9	9	9
Other	m	0	0	0	0	Other	m	0	0	0	0
Total S/H Equity	m	11,225	12,719	15,233	18,981	Total S/H Equity	m	11,225	12,719	15,233	18,981
Total Liab & S/H Funds	m	23,056	33,305	49,115	61,286	Total Liab & S/H Funds	m	23,056	33,305	49,115	61,286

All figures in INR unless noted.

Source: Macquarie Research, February 2007

Important disclosures:

Recommendation definitions

Macquarie Australia/New Zealand

Outperform – return >5% in excess of benchmark return (>2.5% in excess for listed property trusts)
 Neutral – return within 5% of benchmark return (within 2.5% for listed property trusts)
 Underperform – return >5% below benchmark return (>2.5% below for listed property trusts)

Macquarie Asia

Outperform – expected return >+10%
 Neutral – expected return from -10% to +10%
 Underperform – expected return <-10%

Macquarie First South Securities (South Africa)

Outperform – return > 5% in excess of benchmark return
 Neutral – return within 5% of benchmark return
 Underperform – return >5% below benchmark return

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Recommendation proportions

	AU/NZ	Asia	RSA
Outperform	43.12%	58.91%	42.20%
Neutral	44.98%	22.92%	46.80%
Underperform	11.90%	18.17%	11.00%

For quarter ending 31 December 2006

Volatility index definition*

This is calculated from the volatility of historic price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.

* Applicable to Australian/NZ stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:
 Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
 Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*

ROA = adjusted ebit / average total assets

ROA Banks/Insurance = adjusted net profit / average total assets

ROE = adjusted net profit / average shareholders funds

Gross cashflow = adjusted net profit + depreciation

*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

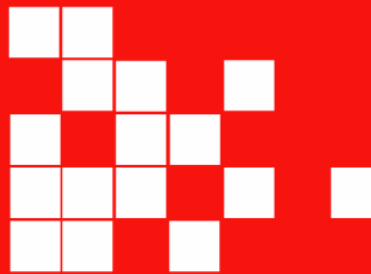
Analyst Certification: The views expressed in this research accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research. The analyst principally responsible for the preparation of this research receives compensation based on overall revenues, including investment banking revenues, of Macquarie Bank Ltd ABN 46 008 583 542 (AFSL No.237502)("Macquarie") and its related entities ("the Macquarie group") and has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations.

Disclaimers: Macquarie Securities (Australia) Ltd; Macquarie Europe Ltd; Macquarie Securities (USA) Inc; Macquarie Securities Ltd; Macquarie Securities (Singapore) Pte Ltd; and Macquarie Securities (New Zealand) Ltd are not authorised deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia), and their obligations do not represent deposits or other liabilities of Macquarie. Macquarie provides a guarantee to the Monetary Authority of Singapore in respect of Macquarie Securities (Singapore) Pte Ltd for up to SGD25m under the Securities and Futures Act (Chapter 289). Macquarie does not otherwise guarantee or provide assurance in respect of the obligations of any of the above mentioned entities. This research has been prepared for the general use of the wholesale clients of the Macquarie group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this research in any way. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. In preparing this research, we did not take into account the investment objectives, financial situation and particular needs of the reader. Before making an investment decision on the basis of this research, the reader needs to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of their particular investment needs, objectives and financial circumstances. There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment. This research is based on information obtained from sources believed to be reliable but we do not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. No member of the Macquarie group accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research.

Other Disclaimers: Securities research is issued and distributed by Macquarie Securities (Australia) Ltd (AFSL No. 238947) in Australia, a participating organisation of the Australian Stock Exchange; Macquarie Securities (New Zealand) Ltd in New Zealand, a licensed sharebroker and New Zealand Exchange Firm; Macquarie Europe Ltd in the United Kingdom, which is authorised and regulated by the Financial Services Authority (No. 193905); Macquarie Securities Ltd in Hong Kong, which is licensed and regulated by the Securities and Futures Commission; Macquarie Securities (Japan) Limited in Japan, a member of the Tokyo Stock Exchange, Inc. and Osaka Securities Exchange Co., Ltd and in Singapore, Macquarie Securities (Singapore) Pte Ltd (Company Registration Number: 198702912C), a Capital Markets Services licence holder under the Securities and Futures Act to deal in securities and provide custodial services in Singapore. Pursuant to the Financial Advisers (Amendment) Regulations 2005, Macquarie Securities (Singapore) Pte Ltd is exempt from complying with sections 25, 27 and 36 of the Financial Advisers Act. Economic research is issued and distributed in Australia by Macquarie; in New Zealand by Macquarie Securities (New Zealand) Ltd and in the United Kingdom by Macquarie Europe Ltd. Clients should contact analysts at, and execute transactions through, a Macquarie group entity in their home jurisdiction unless governing law permits otherwise. This research may be distributed in the United States only to major institutional investors and may not be circulated to any other person in the United States. Macquarie Securities (USA) Inc., which is a registered broker-dealer and member of the NASD, accepts responsibility for the content of each research report prepared by one of its non-US affiliates when the research report is distributed in the United States by Macquarie Securities (USA) Inc. All transactions by US investors involving securities discussed in this report must be effected through Macquarie Securities (USA) Inc. The information contained in this email is confidential. If you are not the intended recipient, you must not disclose or use the information in this email in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. Disclosures with respect to the issuers, if any, mentioned in this research are available at www.macquarie.com/research/disclosures. © Macquarie Group

Auckland Tel: (649) 377 6433	Bangkok Tel: (662) 694 7999	Hong Kong Tel: (852) 2823 3588	Jakarta Tel: (62 21) 515 1818	Johannesburg Tel: (27 11) 343 2258	Kuala Lumpur Tel: (60 3) 2059 8833
London Tel: (44 20) 7065 2000	Manila Tel: (63 2) 857 0888	Melbourne Tel: (613) 9635 8139	Mumbai Tel: (91 22) 6653 3000	New York Tel: (1 212) 231 2500	Perth Tel: (618) 9224 0888
Seoul Tel: (82 2) 3705 8500	Shanghai Tel: (86 21) 6841 3355	Singapore Tel: (65) 6231 1111	Sydney Tel: (612) 8232 9555	Taipei Tel: (886 2) 2734 7500	Tokyo Tel: (81 3) 3512 7900

Available to clients on the world wide web at www.macquarie.com/research and through Thomson Financial, Reuters and Bloomberg.



Research

Automobiles/Auto Parts

Kurt Sanger (Japan, Asia)	(813) 3512 7859
Liny Halim (Indonesia)	(6221) 515 7343
Toshisuke Hayami (Japan)	(813) 3512 7873
Eunsook Kwak (Korea)	(822) 3705 8644
Francis Eng (Malaysia)	(603) 2059 8986

Banks and Non-Bank Financials

Ismael Pili (Asia)	(65) 6231 2840
Nick Lord (Asia)	(852) 2823 4774
Christina Fok (China)	(852) 2823 3584
Chris Esson (Hong Kong)	(852) 2823 3567
Seshadri Sen (India)	(9122) 6653 3053
Liny Halim (Indonesia)	(6221) 515 7343
Kentaro Kogi (Japan)	(813) 3512 7865
Hwashin Lee (Korea)	(822) 3705 4994
Mark Barclay (Korea)	(822) 3705 8658
Young Chung Mok (Korea)	(822) 3705 8668
Chin Seng Tay (Malaysia, S'pore)	(65) 6231 2837
Gilbert Lopez (Philippines)	(632) 857 0898
Chris Hunt (Taiwan)	(8862) 2734 7526
Matthew Smith (Taiwan)	(8862) 2734 7514
Alastair Macdonald (Thailand)	(662) 694 7741

Chemicals/Textiles

Scott Weaver (China, Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Kitti Nathisuwan (Thailand)	(662) 694 7724

Conglomerates

Gary Pinge (Asia)	(852) 2823 3557
Gilbert Lopez (Philippines)	(632) 857 0898

Consumer

Ramiz Chelat (Asia)	(852) 2823 3587
Xiaopo Wei (China)	(852) 2823 4741
Unmesh Sharma (India)	(9122) 6653 3042
Sarina Lesmina (Indonesia)	(6221) 515 7339
Duane Sandberg (Japan)	(813) 3512 7867
Christina Lee (Korea)	(822) 3705 8670
Paul Hwang (Korea)	(822) 3705 8678
Woochang Chung (Korea)	(822) 3705 8667
Edward Ong (Malaysia)	(603) 2059 8982
Nadine Javellana (Philippines)	(632) 857 0890
Chris Clayton (Thailand)	(662) 694 7829

Emerging Leaders

Paul Quah (Hong Kong)	(852) 2823 4627
Saurabh Jain (India)	(9122) 6653 3046
Oliver Cox (Japan)	(813) 3512 7871
Robert Burghart (Japan)	(813) 3512 7853
Paul Hwang (Korea)	(822) 3705 8678
Woochang Chung (Korea)	(822) 3705 8667
Nadine Javellana (Philippines)	(632) 857 0890
Jeremy Chen (Taiwan)	(8862) 2734 7521
Scott Weaver (Taiwan)	(8862) 2734 7512

Insurance

Chris Esson (China, Taiwan)	(852) 2823 3567
-----------------------------	-----------------

Media

Ramiz Chelat (Asia)	(852) 2823 3587
Prem Jearajasingam (Malaysia)	(603) 2059 8989

Metals and Mining

Simon Francis (Asia)	(852) 2823 3590
Felix Lam (China, HK, Taiwan)	(852) 2823 3575
Rakesh Arora (India)	(9122) 6653 3054
Adam Worthington (Indonesia)	(6221) 515 7338
Christina Lee (Korea)	(822) 3705 8670

Oil and Gas

David Johnson (Asia)	(852) 2823 4691
Scott Weaver (China, Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Mark Barclay (Korea)	(822) 3705 8658
Edward Ong (Malaysia)	(603) 2059 8982
Kitti Nathisuwan (Thailand)	(662) 694 7724

Pharmaceuticals

Shubham Majumder (India)	(9122) 6653 3049
--------------------------	------------------

Property

Matt Nacard (Asia)	(852) 2823 4731
Eva Lee (Hong Kong, China)	(852) 2823 3573
Siddhartha Gupta	(9122) 6653 3048
Takashi Sakai (Japan)	(813) 3512 7884
Francis Eng (Malaysia)	(603) 2059 8986
Gilbert Lopez (Philippines)	(632) 857 0898
Tuck Yin Soong (Singapore)	(65) 6231 2838
Corinne Jian (Taiwan)	(8862) 2734 7529
Monchai Jaturanpinyo (Thailand)	(662) 694 7727

Technology

Warren Lau (Asia)	(852) 2823 3592
Suveer Chainani (India)	(9122) 6653 3045
Damian Thong (Japan)	(813) 3512 7877
David Gibson (Japan)	(813) 3512 7880
George Chang (Japan)	(813) 3512 7854
Yoshihiro Shimada (Japan)	(813) 3512 7862
Alex Jun (Korea)	(822) 3705 8653
Do Hoon Lee (Korea)	(822) 3705 8641
Michael Bang (Korea)	(822) 3705 8659
Patrick Yau (Singapore)	(65) 6231 2835
Cheryl Hsu (Taiwan)	(8862) 2734 7522
Daniel Chang (Taiwan)	(8862) 2734 7516
Dominic Grant (Taiwan)	(8862) 2734 7528
Jessica Chang (Taiwan)	(8862) 2734 7518
Nicholas Teo (Taiwan)	(8862) 2734 7523

Telecoms

Tim Smart (Asia)	(852) 2823 3565
Jake Lynch (China, Hong Kong)	(852) 2823 3583
Shubham Majumder (India)	(9122) 6653 3049
Richard Moe (Indonesia)	(662) 694 7753
Nathan Ramlar (Japan)	(813) 3512 7875
Joel Kim (Korea)	(822) 3705 8677
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Ramakrishna Maruvada (Singapore)	(65) 6231 2842
Dominic Grant (Taiwan)	(8862) 2734 7528
Richard Moe (Thailand)	(662) 694 7753

Transport & Logistics

Anderson Chow (China, Hong Kong)	(852) 2823 4773
Michael Chan (Asia)	(852) 2823 3595
Paul Huxford (Asia)	(65) 6231 2841
Eunsook Kwak (Korea)	(822) 3705 8644

Utilities

Sylvia Chan (Asia)	(852) 2823 3579
Adam Worthington (Indonesia)	(6221) 515 7338
Prem Jearajasingam (Malaysia)	(603) 2059 8989

Commodities

Jim Lennon	(4420) 7065 2014
Adam Rowley	(4420) 7065 2013
Bonnie Liu	(4420) 7065 2014
Henry Liu	(4420) 7065 2014

Data Services

Liz Dinh (Asia)	(852) 2823 4762
Brent Borger (Japan)	(813) 3512 7852

Economics

Roland Randall (Asean)	(852) 2823 3572
Bill Belchere (Asia)	(852) 2823 4636
Eli Polatinsky (Asia)	(852) 2823 4074
Richard Gibbs (Australia)	(612) 8232 3935
Paul Cavey (China)	(852) 2823 3570
Daniel McCormack (Int'l)	(612) 8232 2999
Richard Jerram (Japan)	(813) 3512 7855

Quantitative

Martin Emery (Asia)	(852) 2823 3582
Viking Kwok (Asia)	(852) 2823 4735
George Platt (Australia)	(612) 8232 6539

Strategy/Country

Tim Rocks (Asia)	(852) 2823 3585
Desh Peramunetilleke (Asia)	(852) 2823 3564
Jake Lynch (China)	(852) 2823 3583
Jal Irani (India)	(9122) 6653 3040
Peter Eadon-Clarke (Japan)	(813) 3512 7850
Eugene Ha (Korea)	(822) 3705 8643
Uday Jayaram (Malaysia)	(603) 2059 8988
Gilbert Lopez (Philippines)	(632) 857 0898
Tuck Yin Soong (Singapore)	(65) 6231 2838
Chris Hunt (Taiwan)	(8862) 2734 7526
Kitti Nathisuwan (Thailand)	(662) 694 7724

Find our research at

Macquarie:	www.macquarie.com.au/research
Thomson:	www.thomson.com/financial
Reuters:	www.rbr.reuters.com
Bloomberg:	MAC GO
Email macresearch@macquarie.com for access	

Sales

Regional Heads of Sales

Greg Gordon (Asia)	(852) 2823 3509
Peter Slater (Boston)	(1 617) 217 2103
Michelle Paisley (China, Hong Kong)	(852) 2823 3516
Ulrike Pollak-Tsutsumi (Frankfurt)	(49) 69 7593 8747
Daniel Fust (Geneva)	(41) 22 818 7710
Thomas Renz (Geneva)	(41) 22 818 7712
Ajay Bhatia (India)	(9122) 6653 3200
Stuart Smythe (India)	(9122) 6653 3200
Eugene Ha (Korea)	(822) 3705 8643
K.Y. Nam (Korea)	(822) 3705 8607
Derek Wilson (London)(N Asia)	(44) 20 7065 5856
Julien Roux (London)	(44) 20 7065 5887
Lena Yong (Malaysia)	(603) 2059 8888
Ismael Pili (Philippines)	(65) 6231 2840
Greg Norton-Kidd (New York)	(1 212) 231 2527
Luke Sullivan (New York)	(1 212) 231 2507

140107/ASIA.MA

Regional Heads of Sales cont'd

Mark Lawrence (New York)	(1 212) 231 2516
Sheila Schroeder (San Francisco)	(1 415) 835 1235
Giles Heyring (Singapore)	(65) 6231 2888
Mark Duncan (Taiwan)	(8862) 2734 7510
Angus Kent (Thailand)	(662) 694 7601
Dominic Henderson (Tokyo)	(813) 3512 7820
Nick Cant (Tokyo)	(813) 3512 7821
Charles Nelson (UK/Europe)	(44) 20 7065 2032
Rob Fabbro (UK/Europe)	(44) 20 7065 2031

Sales Trading

Anthony Wilson (Asia)	(852) 2823 3511
Mona Lee (Hong Kong)	(852) 2823 3519
Stuart Goddard (Europe)	(44) 20 7065 2033
Vijay Gussain (India)	(9122) 6653 3205
Howard Yoon (Korea)	(822) 3705 8601

Sales Trading cont'd

Robert Risman (New York)	(1 212) 231 2555
Isaac Huang (Taiwan)	(8862) 2734 7582
Kenichi Ohtaka (Tokyo)	(813) 3512 7830

Index Sales

Margaret Hartmann	(612) 8232 9834
-------------------	-----------------

Alternative Strategies

Convertibles - Roland Sharman	(852) 2823 4628
Depository Receipts - Robert Ansell	(852) 2823 4688
Derivatives - Vipul Shah	(852) 2823 3523
Futures - Tim Smith	(852) 2823 4637
Hedge Fund Sales - Darin Lester	(852) 2823 4736
Structured Products - Andrew Terlich	(852) 2249 3225