

October 2007



Pipes



Serving the globe

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Pipes

BSE Sensex: 17,614

S&P CNX: 5,184

22 October 2007

COMPANY NAME	PG.	
Jindal Saw (Buy, Rs586)	20	We believe that Indian saw-pipe companies are well placed to serve the increasing global demand for linepipes. While the global opportunity for Lsaw and Hsaw pipes over the next five years is pegged at US\$60b, the domestic opportunity over the next 3-4 years is projected at Rs228b. Indian pipe companies boast robust order books, translating into good revenue visibility and valuations leave scope for significant upside. We initiate coverage on Jindal Saw and Welspun Gujarat, as well as Maharashtra Seamless – India's largest seamless pipe manufacturer, with a Buy rating.
Welspun Gujarat Stahl (Buy, Rs290)	28	
Maharashtra Seamless (Buy, Rs458)	35	

Indian companies best placed to exploit strong global demand: Global demand for linepipes over the next five years is estimated at 60m ton (211,042km). This translates into a US\$60b opportunity for Lsaw and Hsaw pipes. We believe that Indian pipe companies, with combined Lsaw capacity of 1.5m ton and Hsaw capacity of 2.2m ton, are best positioned to ride this unfolding global opportunity.

Domestic demand also likely to pick up: Merely 32% of the total petroleum products made in India are transported via linepipes. We believe that this is set to change. Crisil, an independent research house, expects investment up to Rs317b in the Indian linepipe infrastructure over the next 3-4 years. Pipes alone would constitute about 75% of this cost, translating into an opportunity of about Rs228b.

Good revenue visibility: On the back of quality orders in hand, we expect Indian pipe companies to record strong revenue growth over the next two years. The combined order book of the Indian pipe companies stands at about Rs118b and their aggregate revenue for FY07 was about Rs104b. We estimate 13.5% revenue growth to Rs118b for FY08, and over 40% revenue growth to Rs166b for FY09. Also, EBITDA margins of each of the companies would expand, with better operational efficiency.

Valuations – significant upside: Indian pipe companies offer high growth visibility – reflected in their strong order books. The size of the global opportunity available to them is substantial – reflected in global demand for pipes and bids participated in by the Indian pipe companies. This is still not fully built in stock valuations; there is still a lot of room for appreciation. Our top picks are **Jindal Saw** and **Welspun Gujarat**.

COMPARATIVE VALUATIONS (FY09 / CY08)

COMPANY	RECO	CMP (RS)	TARGET (RS)	MARKET CAP		EPS (RS)	P/E (X)	EV/ EBITDA (X)	EV/ SALES (X)	ROE (%)	ROCE (%)	UPSIDE (%)
				(RS B)	(US\$ B)							
Jindal Saw *	Buy	586	884	28.3	0.7	88.4	6.6	2.2	0.4	13.7	17.7	51.0
Welspun Gujarat	Buy	290	400	40.6	1.0	26.3	11.1	6.0	1.2	32.0	26.7	37.7
Maharashtra Seamless	Buy	458	708	32.5	0.8	47.2	9.7	5.5	1.2	22.6	29.1	54.7

* December ending

Indian companies best placed to exploit strong global demand

Global demand for linepipes over the next five years is estimated at 60m ton (211,042km). This translates into a US\$6b opportunity for Lsaw and Hsaw pipes. We believe that Indian pipe companies, with combined Lsaw capacity of 1.45m ton and Hsaw capacity of 2.2m ton, are best positioned to ride this unfolding global opportunity. Exports constituted almost 75% of sales for Indian pipe companies in FY07 and currently constitute nearly 70% of their combined order book.

EXPORTS CONSTITUTE ALMOST 75% OF INDIAN PIPE COMPANIES' COMBINED SALES...

KEY MATRICES	WELSPUN GUJ.	JINDAL SAW	MAN INDUSTRIES	PSL
Net Sales (Rs b)				
FY06	18.3	38.7	8.7	15.4
FY07	26.8	59.1	11.3	15.8
FY08E	37.8	37.7	18.0	24.2
Exports (Rs b)				
FY06	13.1	28.5	4.2	4.8
FY07	22.1	46.8	8.4	5.3
FY08E	31.5	23.2	12.6	10.3
Exports (%)				
FY06	71.4	73.6	47.9	31.4
FY07	82.4	79.1	74.1	33.2
FY08E	83.4	61.6	70.0	42.4

Source: Industry/Motilal Oswal Securities

... AND NEARLY 70% OF THEIR COMBINED ORDER BOOK

KEY MATRICES	WELSPUN GUJ.	JINDAL SAW	MAN INDUSTRIES	PSL
Total Orders (Rs b)	55.3	28.8	22.0	22.0
Export Orders	50.9	20.1	20.0	10.0
Export Orders (%)	92.0	69.9	90.9	45.5

Source: Industry/Motilal Oswal Securities

What are the key global demand triggers?

We believe the key triggers for global linepipe demand are:

- (1) **Rising crude prices and oil shortages:** Certain geographies across the globe are severely impacted by rising crude and gas prices.
- (2) **Rising demand for gas:** Global demand for gas is likely to rise to 156t cft in 2025 from 92t cft in 2002 – International Energy Outlook (IEO).
- (3) **Need to connect marginal oil fields with main hubs:** The unprecedented rise in the price of crude (from >US\$20/barrel in FY01 to around US\$75/barrel in FY07) has destabilized budgets of several countries worldwide. Securing energy requirements has assumed top priority, changing the dynamics of exploration & production (E&P).

The growing need for transportation of petroleum products and water is driving up global demand for linepipes

- (4) **Increase in refining capacity:** Rising demand for petroproducts has resulted in setting up of additional refining capacities in countries such as Malaysia, Sudan and Russia.
- (5) **Need to create water transport infrastructure:** The need to transport water from distant geographical sources to usage locations has led to huge demand growth for large diameter pipes (Hsaw/spiral pipes) globally, particularly in water-deficit countries in the Middle East such as Oman, Qatar and Saudi Arabia.
- (6) **Cost-effective, eco-friendly mode of transportation:** Global acceptance of linepipes as the most cost-effective and eco-friendly mode of transportation is raising the bar on its use for cross-country transportation of petroleum products and water.

GLOBAL DEMAND BREAKDOWN

GEOGRAPHICAL ZONE	NUMBER OF PROJECTS	TOTAL LENGTH IN KM	EQUIVALENT IN M TON	EQUIVALENT IN US\$M
Middle East and Asia	105	82,114	20.52	20,529
North America	167	59,875	14.96	14,969
Europe	46	22,729	5.68	5,682
Latin America	42	21,430	5.35	5,358
Australasia	18	12,658	3.16	3,165
Africa	28	12,236	3.05	3,059
Total	406	211,042	52.76	52,761

Further, Iran has a demand of 6m ton i.e. US\$60b over the next five years

Source: Industry

What gives Indian companies an edge?

Indian pipe companies account for about 17% of global capacity

Global pipe companies are operating at close to their peak capacity...

At about 4.9m ton, Indian pipe companies account for about 17.1% of estimated global capacity of about 29m ton. However, according to industry, a large share of this global capacity is theoretical (nameplate capacity). Only about 60% (i.e. 17.4m ton) capacity is believed to be operable – at most it could be stretched to 70% (about 20.3m ton). This is borne out by the fact that CY06 global production is estimated at about 16m ton (11m ton longitudinal + 5m ton spiral – Metal Bulletin Research, September 2006).

...and Indian companies account for 17% of global capacity

What this means is that global pipe companies are operating at close to their peak capacity. With demand remaining strong, pipe companies would witness firm prices for their products. Indian companies, which together command over 17% share of global capacity, would be big beneficiaries.

TOP PIPE COMPANIES, WHICH ACTIVELY COMPETE GLOBALLY

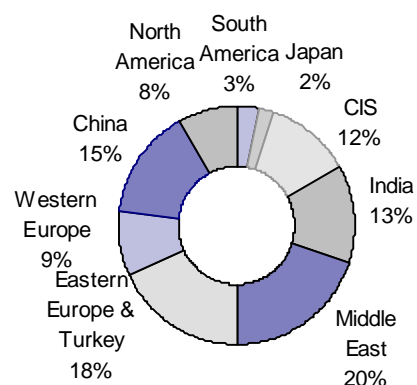
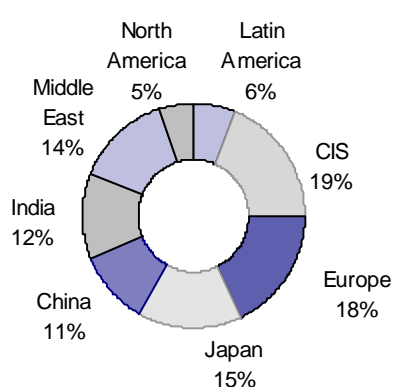
COMPANY	COUNTRY OF ORIGIN	MARKETS IN WHICH ACTIVE	TYPE OF PIPE	CAPACITY (M TON)
Sumitomo	Japan	Japan, CIS, China, USA, Saudi, SE Asia, Europe	Hsaw, Lsaw, ERW	3.0
Nippon Steel	Japan	Japan, CIS, China, USA, Saudi, SE Asia, Europe	Lsaw, Hsaw, ERW Seamless	2.8
JFE (Kawasaki)	Japan	Japan, CIS, China, USA, Saudi, SE Asia, Europe	Lsaw, Hsaw, ERW	2.5
V&M (Now Europ)	Germany	Europe, USA, Africa, CIS	Lsaw	2.5
Khartsyzsk Tube	Ukraine	CIS	Lsaw	1.8
Ilva	Italy	Europe, USA, Africa, CIS	Hsaw, Lsaw, ERW	1.6
Vyksa Steel	Russia	CIS	Hsaw, Lsaw	1.5
Jindal Saw	India	India, ME, USA, SE Asia	Lsaw, Hsaw	1.4
Volzsky Pipe	Russia	CIS	Hsaw	1.3
Ippsco	Canada	USA, Canada	Hsaw, ERW, OCTG	1.2
Seah Steel	Korea	SE Asia	Lsaw, Hsaw, ERW	1.2
PSL	India	India, ME, USA, SE Asia	Hsaw	1.2
Europipe	Germany	Europe, USA, Africa, CIS	Lsaw	1.1
Welspun Gujarat	India	India, ME, USA, SE Asia	Lsaw, Hsaw, ERW	1.4
Hyundai Pipe Co	Korea	SE Asia	Lsaw, Hsaw, ERW	1.0
Corus	UK	Europe	Lsaw, Hsaw, ERW	0.6
Welland Pipe	Canada	USA, Canada	Lsaw, OCTG	0.5
Confab Industrial	Brazil	North/South America	Lsaw	0.5
Man Industries	India	India, ME, USA, SE Asia	Lsaw, Hsaw	1.0
Oregon, Camrose	USA	USA, Canada	Hsaw, Lsaw	0.4
Berg	USA	USA, Canada	Lsaw	0.4
Total Global Installed Capacity				28.8
Total Indian Installed Capacity				4.9
Indian Capacity as a % of Global Capacity				17.1
Estimated CY06 Global Production				16.0
Max Global Operative Cap				20.1

Source: Industry, Metal Bulletin/Motilal Oswal Securities

BREAK-UP OF GLOBAL PIPE PRODUCTION (CY06)

LSAW: TOTAL ESTIMATED PRODUCTION = 11M TON

HSAW: TOTAL ESTIMATED PRODUCTION = 5M TON



Source: Industry/Motilal Oswal Securities

Unlike most large overseas pipe producers, Indian pipe companies are focused players

Indian pipe companies are focused players

Most large pipe producers in the world (Sumitomo, Nippon, JFE, Ilva, Ippsco, Hyundai, Corus, Oregon, and Camrose) are primarily steel players for whom pipe manufacturing is merely a secondary operation. In contrast, Indian pipe companies are specialized pipe manufacturers. They have: (1) scaled up operations ahead in anticipation of robust global demand; and (2) are included amongst the top 20 global pipe companies.

STANDALONE V/S SECONDARY PIPE COMPANIES ACROSS THE GLOBE

TOP STEEL COMPANIES WITH PIPE MAKING AS SECONDARY OPERATIONS	TOP STANDALONE PIPE COMPANIES
Sumitomo	V&M (now Europipe)
Nippon Steel Corporation	Khartsyzsk
JFE (Kawasaki)	Vyksa Steel
Ilva	Jindal Saw
Ippsco	Volzsky Pipe
Hyundai Pipe Co	Seah Steel Corporation
Corus	PSL
Oregon	Europipe
Camrose	Welspun Gujarat Stahl
	Welland Pipe
	Confab Industrial
	Man Industries

Source: Industry/Motilal Oswal Securities

Indian pipe companies face little competition in the overseas markets they serve

Indian pipe companies face little competition in the overseas markets

Indian pipe companies face little competition in the overseas markets they serve – the Middle East, USA, Africa and SE Asia. The USA offers a big opportunity for Indian pipe players on three counts: (i) substantial internal demand; (ii) existence of very few focused pipe mills domestically; and (iii) Japanese pipe exports facing trade restrictions.

While Russian and Chinese pipe capacities are required to meet domestic needs, Japanese players face trade restrictions in the US

Russia is likely to witness annual pipe demand of 2.5m ton, and most capacities in Russia and Ukraine are utilized to satisfy domestic demand in accordance with the government of Russia's directive. Likewise, capacities in China serve local demand. According to Simdex (2004 data), China has 1.5m ton of capacity, mostly spiral, a large part of which is not operable and is of poor quality. Japanese companies on the other hand, have about 8.3m ton of capacity, mostly nameplate, but face trade restrictions in the USA and are impacted by logistics/cost disadvantage versus Indian companies.

Cheaper labor and proximity to key markets give Indian pipe producers a cost advantage...

Indian pipe companies enjoy a cost advantage...

- ⌘ **Significant freight advantage:** Average freight cost to the Middle East is US\$40-55/ton from India as against US\$80-110/ton from Japan. To the US (Houston), freight cost is US\$125-150/ton from India as against upwards US\$200/ton from Japan (via Pacific).
- ⌘ **Inexpensive labor:** Cost of production in India is cheaper. There is adequate supply of inexpensive skilled labor. Additionally, some companies have integrated backward, making their operations more cost competitive.

CURRENT COST ADVANTAGE ENJOYED BY INDIAN PIPE COMPANIES

COST ADVANTAGE OF INDIAN PIPE COMPANIES FOR EXPORT SALES TO MIDDLE EAST

ITEM	INDIAN COMPANIES	FOREIGN COMPANIES
	COST US\$/TON	COST US\$/TON
Plate	900	900
Inward Freight on Plate	55	30
Import Duty	-	-
Production Cost	55	100
Outward Freight on Pipes	40	80
Total Cost	1,050	1,110
<i>Cost Advantage (%)</i>	<i>5.4</i>	<i>-</i>

COST ADVANTAGE OF INDIAN PIPE COMPANIES FOR SALES IN DOMESTIC MARKET

ITEM	INDIAN COMPANIES	FOREIGN COMPANIES
	COST US\$/TON	COST US\$/TON
Plate	900	900
Inward Freight on Plate	55	30
Import Duty @ 5%	45	-
Production Cost	55	100
Inward Freight on Pipes	-	80
Total FOB Cost	1,055	1,110
Duty @ 10%	-	111
Total Cost	1,055	1,221
<i>Cost Advantage (%)</i>	<i>13.6</i>	<i>-</i>

Source: Industry/Motilal Oswal Securities

...and the addition of 4m ton plate capacity in India would further enhance their competitiveness

...and 4m ton plate capacity addition would enhance competitiveness

Currently, SAIL is the only company, which makes HR plates (1m ton capacity). HR plates are a critical raw material for pipes and pipe manufacturers have to rely on imports to meet delivery schedules. However, three Indian pipe companies are in various stages of setting up HR plate capacity of about 4.3m ton.

- (1) **Jindal Steel & Power:** 1m ton capacity; 3.8 meters width; commercial production begun in August 2007
- (2) **Essar Steel:** 1.5m ton capacity; ~5 meters width; commercial production likely to begin in 2008
- (3) **Welspun Gujarat:** 1.8m ton capacity; ~5 meters width; likely to be on stream by December 2007

Once the new plate capacities are fully operational, Indian pipe makers would enjoy a cost advantage of about 10% in export sales and about 22% in domestic sales.

COST ADVANTAGE POST FULL COMMISSIONING OF 4M TON PLATE CAPACITY

COST ADVANTAGE FOR EXPORT SALES TO MIDDLE EAST

ITEM	INDIAN COMPANIES	FOREIGN COMPANIES
	COST US\$/TON	COST US\$/TON
Plate	900	900
Inward Freight on Plate	-	30
Import Duty	-	-
Production Cost	55	100
Outward Freight on Pipes	40	80
Total Cost	995	1,110
<i>Cost Advantage (%)</i>	<i>10.4</i>	<i>-</i>

COST ADVANTAGE FOR SALES IN DOMESTIC MARKET

ITEM	INDIAN COMPANIES	FOREIGN COMPANIES
	COST US\$/TON	COST US\$/TON
Plate	900	900
Inward Freight on Plate	-	30
Import Duty @ 5%	-	-
Production Cost	55	100
Inward Freight on Pipes	-	80
Total FOB Cost	955	1,110
Duty @ 10%	-	111
Total Cost	955	1,221
<i>Cost Advantage (%)</i>	<i>21.8</i>	<i>-</i>

Source: Industry/Motilal Oswal Securities

Domestic demand also likely to pick up

INDIA'S CURRENT PIPELINE NETWORK	
Crude	8,000km
Refined Products	6,000km
Gas	4,500km
Total	18,500km

Source: Industry/Motilal Oswal Securities

India's minuscule linepipe network of about 18,500km, chiefly in the western and north-eastern regions, for transporting crude oil, refined products and gas, compares poorly with that of France (1,70,000km network) and the US (3,29,600km). Merely 32% of the total petroleum products made in India are transported via linepipes. We believe that this is set to change. Crisil, an independent research house, expects investment up to Rs317b in the Indian linepipe infrastructure over the next 3-4 years. Pipes alone would constitute about 75% of this cost, translating into an opportunity of about Rs228b.

The government has initiated several measures that could create buoyant demand for linepipes:

Domestic demand too is likely to pick up

- ✦ **Search for crude:** The National Exploration Licensing Policy (NELP) has opened significant avenues for private participation in exploration and production (E&P). It aims to accelerate oil exploration onshore as well as offshore. It must be noted that India's investment in gas pipelines since independence (exception: HBJ pipeline) is near zero.
- ✦ **Infrastructure status:** In the 2007-2008 Union Budget, the government conferred infrastructure status to new gas pipeline projects under section 80IA of the Income Tax Act. This would entitle these units to tax deductions.
- ✦ **Gas consumption set to rise:** Currently, India produces merely 90m standard cubic meters of natural gas versus a daily domestic demand of 120m standard cubic meters. Demand is likely to increase to 193m standard cubic meters/day by 2010, and further to 400m standard cubic meters/day by 2020. International Energy Agency (IEA) projects India's gas consumption to grow at 5% from 2002 to reach 2.6t cft in 2025.
- ✦ **Recent natural gas discoveries:** Being more environment friendly and cheaper, natural gas is today's most preferred fuel. The government proposes to set up a national gas grid along the lines of the national power grid over the next two years. Phase I of the grid is likely to span 6,463km, comprising 13 sections, which could translate into an opportunity of Rs48b-Rs58b for Indian pipe companies. Phase II targets a further 5,817km, comprising 11 sections (Rs36b-Rs54b opportunity).
- ✦ **Increased water transport infrastructure:** Cris-Infac estimates demand for water to grow at 5% CAGR from 800b cubic meters to 1,100b cubic meters over FY05-10. The higher budgetary allocation for water supply (demand boost for Hsaw pipes, spiral variety) and sewerage systems (DI pipes) by respective state governments, proposals to increase water tariff (thereby contributing toward DI pipe costs) and development projects by the World Bank and Asian Development Bank would spur demand for pipes.

INDIA: PLANNED INVESTMENTS IN LINEPIPE PROJECTS

	LENGTH KM	STATES COVERED	INVESTMENT (RS B)
Reliance			
Goa-Hyderabad	652		
Kakinada-Hyderabad (Trunk)	469	Andhra Pradesh	20.0
Kakinada-Hyderabad (Spur)	278		
Hyderabad-Uran-Ahmedabad (Trunk)	941		
Karnataka-Maharashtra-Gujarat (spur)	244		
Chennai-Tuticorin Pipeline	670		
Chennai-Bangalore-Mangalore	660	TN, AP, Karnataka	24.0
Kakinada-Basudebpur-Haldia Gas Pipeline	1,100	AP, Orissa, WB	52.0
Sub-total	5,014		198.0
GAIL			
Dabhol-Panvel Pipeline	166	Maharashtra	13.3
Dahej-Uran (Trunk)	387	Gujarat, Maharashtra	18.3
Dahej-Uran (Spur)	112		
Kakinada-Chennai	25		
Jagdishpur-Haldia	876	Jharkhand, Orissa, WB	40.0
Kochi-Kanjirkkod-Bangalore/Mangalore	763	TN, Kerala, Karnataka	22.5
Sub-total	2,303		119.1
Total	7,317		317.1

Source: Crisil/Motilal Oswal Securities

Good revenue visibility

On the back of quality orders in hand, we expect Indian pipe companies to record strong revenue growth over the next two years. The combined order book of the Indian pipe companies stands at about Rs128.1b and their aggregate revenue for FY07 was about Rs104b. We estimate 13.5% revenue growth to Rs118b for FY08, and over 40% revenue growth to Rs166b for FY09. Also, EBITDA margins of each of the companies would expand, with better operational efficiency.

SALES GROWTH ACCOMPANIED BY MARGIN EXPANSION

KEY MATRICES	MAN INDUSTRIES	PSL	WELSPUN GUJ	JINDAL SAW
Net Sales (Rs b)				
FY07E	11.3	15.8	26.8	59.1
FY08E	18.0	24.2	37.8	37.7
FY09E	24.0	30.0	55.6	50.4
EBITDA Margin (%)				
FY07E	11.6	9.4	12.4	12.1
FY08E	11.7	10.5	16.0	16.3
FY09E	12.0	11.0	20.1	18.2
EBIT Margin (%)				
FY07E	10.1	6.6	10.7	10.8
FY08E	10.5	8.3	14.0	14.3
FY09E	11.0	9.3	16.7	16.5
PBT Margin (%)				
FY07E	7.4	5.4	8.2	15.7
FY08E	7.6	6.6	11.3	23.2
FY09E	7.6	7.5	13.3	15.2
PAT Margin (%)				
FY07E	4.9	3.9	5.3	5.8
FY08E	5.3	4.8	7.5	7.5
FY09E	5.0	5.0	8.8	8.8

Source: Industry/Motilal Oswal Securities

Current order book is strong...

Indian pipe companies have large orders in hand, indicating good revenue visibility over the next 12 months

All Indian pipe companies currently have large orders in hand, indicating good revenue visibility over the next 12 months.

STRONG ORDER BOOK PROVIDES GOOD REVENUE VISIBILITY (RS B)

KEY MATRICES	MAN INDUSTRIES	PSL	WELSPUN GUJ	JINDAL SAW	TOTAL
Total Orders	22.0	22.0	55.3	28.8	128.1
Completion By	Next 1 year	By May 08	By July 08	Apr/May 08	
FY08E Sales	18.0	24.2	37.8	37.7	117.7
Bids Participated In	50.0	50.0	100.0	75.0	275.0

Source: Industry/Motilal Oswal Securities

Welspun Gujarat's current order book stands at Rs55b (US\$1.4b; excluding orders converted in 2QFY08) after it recently bagged orders amounting to Rs18.5b (US\$459m)

for supply of linepipes (spiral as well as longitudinal) for oil and gas applications (one single order of Rs18.35b or US\$459m from Transcanada). Earlier it had received order amounting to Rs10.9b (US\$250m) of which Rs2b orders flowed from Kinder Morgan, a US-based oil & gas major; Rs7b from Latin America (Peru) and the rest from Reliance for its KG basin undersea pipelines.

Similarly Jindal Saw's order book stands at Rs28.8b (US\$0.7b; after taking into account orders completed into sales till date and excluding orders of its US subsidiary). In February 2007 it won its single largest order ~US\$355m (Rs1.5b) from Gulf South, USA, a gas transportation company.

Man Industries won a substantial order ~US\$225m (Rs9.7b) for supply of linepipes (Lsaw and Hsaw) from the US-based Kinder Morgan, catapulting its order book to Rs22b.

PSL's current order book stands at Rs22b (US\$0.5b).

RECENT LARGE ORDERS WON BY INDIAN COMPANIES

PARTICULARS	MAN INDUSTRIES	PSL	WELSPUN GUJ	JINDAL SAW
Name Of Customer	Kinder Morgan (USA)	Reliance (India)	Kinder Morgan Reliance, Transcanada	Gulf South (USA)
Order Size (US\$m)	225	21	710	355

Source: Industry/Motilal Oswal Securities

...and we expect robust order flows till FY09

We note that each of these companies has participated in bids, which will ensure growth beyond FY08 as well. Welspun Gujarat has bid for orders worth Rs100b (US\$2.3b); Jindal Saw has participated in bids worth Rs150b (US\$3.5b); Man Industries has bid for projects up to Rs50b (US\$1.2b), and PSL too has bid similarly.

BIDS PARTICIPATED

PARTICULARS	MAN INDUSTRIES	PSL	WELSPUN GUJ	JINDAL SAW
Amount (Rs b)	50.0	50.0	100.0	75.0
Strike Rate (%)	20 to 25	20 to 25	20 to 25	20 to 25

Source: Industry/Motilal Oswal Securities

Bid participations should ensure growth beyond FY08 as well

Entry barriers riddle new units

Worldwide, capacity additions in the pipe industry are limited. Given the high cost of setting up new facilities and intense competition from existing players, net profit margins for new players could range between 3.5-6%. This makes it unattractive for most potential entrants, for most of whom pipe manufacturing is not the principal business. Also, approval/certification by the American Petroleum Institute (API) is a pre-requisite to even be considered by overseas customers. Getting this approval is difficult and time-consuming.

Prequalification requirements would keep new supplies restricted

One of the main hurdles in setting up a greenfield Lsaw/Hsaw pipe facility is approval/certification by the American Petroleum Institute, API. The API monogram is a must for a pipe company to be even considered by overseas customers.

There are stiff entry barriers, which would discourage new entrants

Getting approvals from consumers, post API, too is a long-drawn process and takes 2-3 years from the date of commissioning the pipe unit. Approvals are granted only after stringent quality assessment and audit procedures are concluded. Though the approvals are facility specific, existing players running approved units usually gain approvals for additional units faster. Also, approvals are performance related.

A LONG GESTATION PERIOD

STAGE	TIME TAKEN
Commissioning of the plant	18 to 24 months
API approval	6 to 9 months
Domestic oil companies' approval	6 to 18 months
Global oil companies' approval	12 to 36 months

Source: Industry/Motilal Oswal Securities

Margins are unattractive for new units

Given that the cost of setting up a new unit have risen considerably, for new players net profit margins could range between 3.5-6%. This makes it unattractive for most potential entrants, for most of whom pipe manufacturing is not the principal business.

New plants/capacity expansions limited

Expectation of low margins has led to merely a few units being set up globally. We note Indian companies with port-based facilities figure largely amongst the new units that have been set up. Man Industries, Welspun Gujarat, Jindal Saw and PSL have set up units in the Kutch region of Gujarat near the Mundra and Kandla seaports. This has facilitated cheaper import of raw material (plates) and cheaper export of finished goods (pipes).

According to Metal Bulletin Research and industry, new capacities likely to come up in the next couple of years total about 2.7m ton (longitudinal) and about 2.8m ton (spiral). Plants such as Khartsyzsk, Severstal-Izhora 2, OMK and TMK (totaling about 1.1m ton) are

COUNTRIES WHERE LARGE PIPELINE NETWORKS ARE LOCATED



Source: Industry/Motilal Oswal Securities

coming up in Russia/Ukraine and are likely to be inward looking. Another 0.5m ton is likely to arise in Iraq (CY06-09). China has announced about 0.6m ton, much of which would cater to domestic demand, leaving the playing field open to Indian companies.

NEW PIPE MILLS COMING UP

	COUNTRY	CAPACITY (TON PER ANNUM)	START DATE
Lsaw new mill			
Baosteel	China	400,000	CY07
Khartsyzsk	Ukraine	200,000	CY07
Arabian Pipes	Saudi Arabia	300,000	Early CY07
Europipe/Ahwaz	Iran	400,000	CY07
Europipe/V&M	Brazil	90,000	NA
Severstal-Izhora 2	Russia	450,000	NA
Iraq Industry of Minerals	Iraq	350,000	CY06-09
OMK	Russia	350,000	NA
Jindal Saw	India	200,000	By Sep 08
Sub total		2,740,000	
Hsaw new mill			
Berg	USA	200,000	Mid 2008
TMK	Tussia	70,000	1QCY07
Alison	China	150,000	CY07
Borusan Mannesman	Turkey	200,000	CY07
Borusan Mannesman	Central Asia	200,000	CY08
Oregon Steel	USA	220,000	4QCY06
Iraq Industry of Mineral	Iraq	150,000	CY06-09
PSL	USA	300,000	Middle of FY09
Jindal Saw	India	350,000	By Sep 08 & Sep 09
Ippsco	Canada	125,000	Mar 08
Welspun Gujarat	USA	300,000	Middle of FY09
Man Industries	USA	300,000	FY09
Seah/Posco	USA	250,000	Mid CY08
Sub total		2,815,000	
Total		5,555,000	

Source: MBR/Industry/Motilal Oswal Securities

Valuations – significant upside

Our top picks are Jindal Saw and Welspun Gujarat

Indian pipe companies offer high growth visibility – reflected in their strong order books. The size of the global opportunity available to them is substantial – reflected in global demand for pipes and bids participated in by the Indian pipe companies. This is still not fully built in stock valuations; there is still a lot of room for appreciation. Our top picks are **Jindal Saw** and **Welspun Gujarat**.

Jindal Saw offers 51% upside...

We expect **Jindal Saw** to record an EPS of Rs88.4 in FY09. We estimate its book value at the end of FY09 at Rs626.9/share and RoE for the year at 13.7%. The stock trades at 8.2x FY07E EPS of Rs71.2 (5.4x EV/EBITDA), 10.7x FY08E EPS of Rs54.8 (3.6x EV/EBITDA) and 6.6x FY09E EPS of Rs88.4 (2.2x EV/EBITDA). We recommend **Buy**, with a price target of Rs884 (P/E of 10x, EV/EBITDA of 4.1x FY09E).

...while Welspun Gujarat offers 37.7% upside

We believe **Welspun Gujarat** will post an EPS of Rs26.3 in FY09. We estimate its book value at the end of FY09 at Rs210.9/share and RoE for the year at 32%. The stock trades at 38x FY07 diluted EPS of Rs7.6, 19.2x FY08E EPS of Rs15.2 and 11.1x FY09E EPS of Rs26.3 (6x EV/EBITDA). We recommend **Buy** with a price target of Rs400 (P/E of 15x, EV/EBITDA of 7.9x FY09E).

COMPARATIVE VALUATIONS (FY09 / CY08)

COMPANY	RECO	CMP (RS)	TARGET (RS)	MARKET CAP		EPS (RS)	P/E (X)	EV/ EBITDA (X)	EV/ SALES (X)	ROE (%)	ROCE (%)	UPSIDE (%)
				(RS B)	(US\$ B)							
Jindal Saw *	Buy	586	884	28.3	0.7	88.4	6.6	2.2	0.4	13.7	17.7	51.0
Welspun Gujarat	Buy	290	400	40.6	1.0	26.3	11.1	6.0	1.2	32.0	26.7	37.7
Maharashtra Seamless	Buy	458	708	32.5	0.8	47.2	9.7	5.5	1.2	22.6	29.1	54.7

* December ending

Risks and concerns

- ✂ Pipeline orders are project related, any delay in taking off/cancellation could be negative.
 - ✂ **Mitigation:** Indian pipe companies presently have orders in hand for up to 12 months. They have also participated in several bids, which will likely get converted into more orders.
- ✂ Size of the opportunity is potentially huge. Global supply situation is likely to be tight and acceptance of spiral pipes for usage in the US, Middle East and India opens the doors wide for the available spiral capacity in India. This may result in ideal capacity for Indian pipe companies.
 - ✂ **Mitigation:** Overall demand for line pipes is buoyant. Industry sources aver that over 200,000 km pipeline projects are likely to be awarded in the next five years. In CY06 total global production of line pipes amounted to about 16m ton, which is about 55% of global capacity.
- ✂ China, Russia and Japan have a propensity to set up very large capacities and may outbid Indian companies, cannibalizing their sales and impacting their margins.
 - ✂ **Mitigation:** Indian pipe companies are focused; linepipes are their primary business v/s global firms that run this business as a secondary business. All pipe projects follow the global bidding process; Indian companies being globally competitive win a majority of the orders.
 - ✂ **Why global demand will be positive for India:** (1) In China and Russia, virtually all pipe production would go into satisfying domestic demand. As a consequence, the lucrative markets of the Middle East and the US are left to Indian and Japanese companies. (2) Indian companies have freight advantage v/s Japanese firms, and are favored for orders from the US and the Middle East.
- ✂ Any unexpected increase in prices of HR plates and/or HR coils could seriously impact profits as sale price contracts are sans cost escalation clauses.
 - ✂ **Mitigation:** Companies normally make back-to-back bookings of all essential raw materials like coil and/or plate to protect the price, which has been taken into consideration while making bids.
- ✂ **Implementation risks:** (1) inability to procure key inputs; (2) manage timely delivery of end products; (3) face logistics bottlenecks/port congestions.
 - ✂ **Mitigation:** Indian pipe companies are focused on their pipe business and have, in the past, demonstrated an ability to tide over all stated problems.

Company-specific risks and concerns

Jindal Saw

Failure to implement ongoing projects in time could impact financials.

Mitigation: Jindal Saw's projects are in an advanced stage of implementation. The company does not foresee a delay in implementation.

Welspun Gujarat Stahl

Non-implementation of its plate/coil mill project in time could impact FY09 profits. With plate production likely to increase in India (Essar Steel, Jindal Steel and Power to increase supply), plate prices could fall, impacting Welspun's profits ahead.

Mitigation: Welspun's plate mill project is running on schedule. We have assumed nominal margins from plate and pipe operations in FY09.

Maharashtra Seamless

Procuring billets, its key RM, could be a concern, which could impact profits and margins. Its billet requirement is increasing in tandem with its scale of operations.

Mitigation: Adequate supply of billets is available in India to meet the company's requirement. Further, it has the option to resort to imports, which it has done previously.

Companies

BSE Sensex: 17,614

S&P CNX: 5,184

22 October 2007

COMPANY NAME	PG.
Jindal Saw (Buy, Rs586)	20
Welspun Gujarat Stahl (Buy, Rs290)	28
Maharashtra Seamless (Buy, Rs458)	35

Jindal Saw

STOCK INFO.	BLOOMBERG
BSE Sensex: 17,614	JSAW IN
S&P CNX: 5,184	REUTERS CODE
	JIND.BO

22 October 2007

Buy

Initiating Coverage

Rs586

Y/E DECEMBER	2006*	2007E#	2008E	2009E
Net Sales (Rs m)	38,731	59,144	37,674	50,398
EBITDA (Rs m)	4,066	7,167	6,151	9,196
NP (Rs m)	1,669	3,446	3,072	4,959
EPS (Rs)	34.5	71.2	54.8	88.4
EPS Growth (%)	61.4	41.4	51.7	30.6
BV/Share (Rs)	178.3	409.2	544.1	626.9
P/E (x)	17.0	8.2	10.7	6.6
P/BV (x)	3.3	1.4	1.1	0.9
EV/EBITDA (x)	10.2	5.4	3.6	2.2
EV/Sales (x)	1.1	0.7	0.6	0.4
RoE (%)	17.3	16.6	9.7	13.7
RoCE (%)	13.3	18.1	13.0	17.7

* Y/E September; # 15 months ended December 2007

Total pipe solutions company, resilient business model: Jindal Saw offers total pipe solutions – Lsaw, seamless, DI and Hsaw pipes under one umbrella. Its business model mitigates risk of a slowdown in any of its business segments. Its diversified multi-product, multi-location strategy provides it with a resilient business model.

Encouraging prospects, volume growth to match strong demand: Anticipating substantial worldwide demand for pipes, Jindal Saw has built in adequate capacities in all its product categories. This would drive volume growth over the next two years.

Robust order book, outstanding bids to ensure high sales growth: Jindal Saw has an outstanding order book of Rs28.8b (US\$0.7b, not taking into account orders for US mill), all of which has to be completed by April/May 2008. This almost covers the first half of CY08, providing strong revenue visibility. The company has also participated in bids worth Rs75b (US\$1.8b), which would ensure continuous order flow.

Valuations attractive; Buy: The stock trades at 8.2x FY07E EPS of Rs71.2 (5.4x EV/EBITDA), 10.7x FY08E EPS of Rs54.8 (3.6x EV/EBITDA) and 6.6x FY09E EPS of Rs88.4 (2.2x EV/EBITDA). We recommend **Buy**, with a price target of Rs884 (P/E of 10x, EV/EBITDA of 4.1x FY09E).

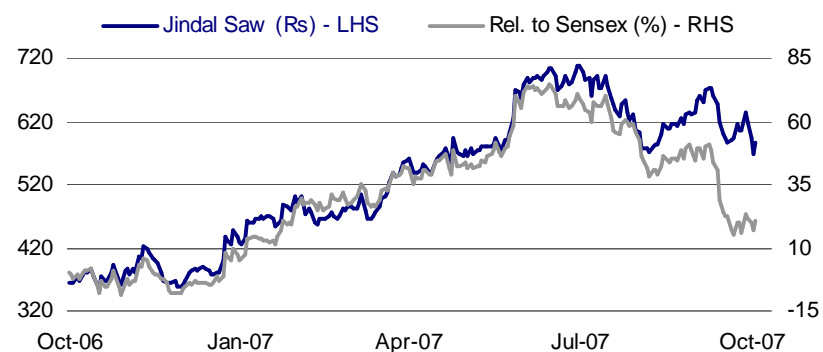
KEY FINANCIALS

Shares Outstanding (m)	48.4
Market Cap. (Rs b)	28.3
Market Cap. (US\$ b)	0.7
Past 2 yrs. Sales Growth (%)	29.4
Past 2 yrs. NP Growth (%)	28.7
Dividend Payout (%)	0.0
Dividend Yield (%)	0.8

STOCK DATA

52-Week Range (H/L - Rs)	728/349
Major Shareholders (as of June 2007)	%
Promoters	42.2
Domestic Institutions	19.0
FII/FDIs	17.2
Others	21.6
Average Daily Turnover	
Volume ('000 shares)	114.8
Value (Rs million)	60.7
1/6/12 Month Rel. Performance (%)	-15/-21/21
1/6/12 Month Abs. Performance (%)	-10/5/61

STOCK PERFORMANCE (ONE YEAR)



Jindal Saw is the only company in India that offers total pipe solutions

Total pipe solutions company, resilient business model

Jindal Saw is the only company in India that offers total pipe solutions. It has a diverse portfolio – Lsaw pipes, seamless pipes, DI pipes and Hsaw pipes – and manufactures all these categories of pipes at its various units. The company has a unique business model – a diversified multi-product, multi-location strategy – which mitigates the risk of a slowdown in any of its business segments. Though we do not foresee a slowdown at any of its strategic business units (SBUs) ahead, we believe the business model is equipped to counter any business risk that should arise.

While Lsaw/Hsaw pipes are cross-country linepipes utilized to transport critical inputs such as oil & gas and water, DI (ductile iron spun pipes) find use in the laying of sewage networks as well as water transportation circuits within city limits. The chief purchasers of these products are government bodies and municipal corporations that require DI pipes for their respective public utility water supply and sewage schemes. Seamless pipes are used in engineering, and oil & gas sectors.

JINDAL SAW: DIVERSIFIED PRODUCT PORTFOLIO

	LONGITUDINAL SAW PIPES (LSAW)	SPIRAL/HELICAL SAW PIPES (HSAW)	SEAMLESS (DI-CI)	DUCTILE/CAST IRON WELDED (ERW)	ELECTRIC RESISTANCE
Application	<ul style="list-style-type: none"> ⌘ Oil & Gas ⌘ Transportation 	<ul style="list-style-type: none"> ⌘ Oil & Gas Transportation ⌘ Water Transportation 	<ul style="list-style-type: none"> ⌘ E & P ⌘ General Engineering ⌘ Boilers ⌘ Automotive 	<ul style="list-style-type: none"> ⌘ Water Transportation ⌘ Sanitation & Housing 	<ul style="list-style-type: none"> ⌘ Oil & Gas ⌘ Water Distribution
Size	16' to 50" diameter	18' to 100" diameter	1/2" to 14" diameter	3' to 39" diameter	1/2" to 22" diameter
Main Players	<ul style="list-style-type: none"> ⌘ Jindal Saw ⌘ Welspun Gujarat Stahl ⌘ Man Industries 	<ul style="list-style-type: none"> ⌘ Jindal Saw ⌘ PSL ⌘ Welspun Gujarat Stahl ⌘ Man Industries 	<ul style="list-style-type: none"> ⌘ Jindal Saw ⌘ ISMT ⌘ Maharashtra Seamless ⌘ BHEL ⌘ Remy Metals Gujarat 	<ul style="list-style-type: none"> ⌘ Jindal Saw ⌘ Electrosteel Castings ⌘ Lanco Kalahasti ⌘ Kesoram Industries ⌘ Kapilansh Dhatu ⌘ Kalinga Tubes 	<ul style="list-style-type: none"> ⌘ Welspun Gujarat Stahl ⌘ Maharashtra Seamless
Key Differentiator	<ul style="list-style-type: none"> ⌘ Used under high pressure conditions (onshore/offshore) ⌘ Demand directly related to investments in Oil & Gas sector 	<ul style="list-style-type: none"> ⌘ High pressure conditions (onshore) ⌘ Demand directly related to investments in Oil & Gas sector and water projects 	<ul style="list-style-type: none"> ⌘ Wide application in oil related and non-oil industries 	<ul style="list-style-type: none"> ⌘ Ductile is rapidly replacing Cast Iron steel pipes 	<ul style="list-style-type: none"> ⌘ Limitation on size, thickness and grade ⌘ SAW/DI/Seamless are the replacement

Source: Company/Motilal Oswal Securities

It has added (and is adding) capacity in anticipation of the strong global demand...

Encouraging prospects, volume growth to match strong demand

Over the next 3-4 years, global demand (includes India), for Lsaw/Hsaw pipes is estimated at 200,000km and involves an investment of almost US\$60b. Anticipating such demand, Jindal Saw has built up adequate saw pipe capacity, which should drive volume growth over the next two years. However, its Hsaw mill capacity being low (lower v/s Lsaw), the company is going ahead with expansion plans to increase this capacity to 350,000 ton in FY08 from the current 150,000 ton. Otherwise, it could lose out to competitors in terms of spiral pipe orders.

JINDAL SAW: INCREASING SAW PIPE CAPACITY / PRODUCTION (TON/ANNUM)

PARTICULARS	FY06	FY07E	FY08E	FY09E
Combined Lsaw & Hsaw Production	343,000	450,000	500,000	700,000
<i>Growth (%)</i>		31.2	11.1	40.0
Lsaw				
Installed Capacity	800,000	800,000	1,000,000	1,000,000
Production	321,000	384,000	400,000	500,000
<i>Capacity Utilization (%)</i>	40.1	48.0	40.0	50.0
Hsaw				
Installed Capacity	150,000	150,000	350,000	500,000
Production	22,000	66,000	100,000	200,000
<i>Capacity Utilization (%)</i>	14.7	44.0	28.6	40.0

Source: Company/Motilal Oswal Securities

Demand for seamless pipes is growing at 20% globally (includes the Indian market). The energy segment is the biggest consumer of seamless tubes. Demand for oil is expected to grow at 1.6% CAGR during FY05-25 and that for gas at 2.3% during the same period. This expected demand should push up E&P activity.

Jindal Saw's seamless pipes plant at Nashik has been built using technology sourced from Mannesmann Demag Huttetechnik-Meer of Germany. The company has already initiated the process of expanding capacity of its seamless plant by installing a PQF mill designed and supplied by SMS Germany. It plans to invest about Rs2.5b toward increasing seamless capacity by 2.5x, from 100,000 ton to 250,000 ton; the new capacity is expected to be functional by end-FY08.

JINDAL SAW: INCREASING SEAMLESS PIPE CAPACITY / PRODUCTION (TON/ANNUM)

PARTICULARS	FY06	FY07E	FY08E	FY09E
Installed Capacity	100,000	100,000	250,000	250,000
Production	40,000	87,500	100,000	200,000
<i>Capacity Utilization (%)</i>	40.0	70.0	40.0	80.0

Source: Company/Motilal Oswal Securities

The current demand for DI pipes is estimated at about 300,000 ton per annum and DI pipes are fast replacing CI pipes owing to inherent benefits such as robustness, resistance to pressure, incidental damage in shipping, installation and services, long life of around 100 years, and better corrosion resistance compared to products such as CI spun pipes, PVC (polyvinyl chloride) pipes and HDPE (high density polyethylene) pipes.

DI pipes are mainly used for water transportation and sanitation systems in the housing segment within city limits. The water supply and sanitation system is presently undergoing structural changes. Higher budgetary allocations by municipal corporations toward water and sewage and developmental projects in India, undertaken by the World Bank and Asian Development Bank, are likely to serve as key demand drivers for DI pipes. We expect DI pipe demand to grow at 15% annually for the next 3-4 years.

India has 16% of the world's population but merely 4-5% of the world's water resources. We note that until now, India has been slow in implementing water supply projects owing to funding concerns. However, with multilateral agencies like the World Bank and Asian Development Bank recognizing the need for additional pipeline infrastructure coupled with the increased focus by government bodies, DI pipe demand should be buoyant.

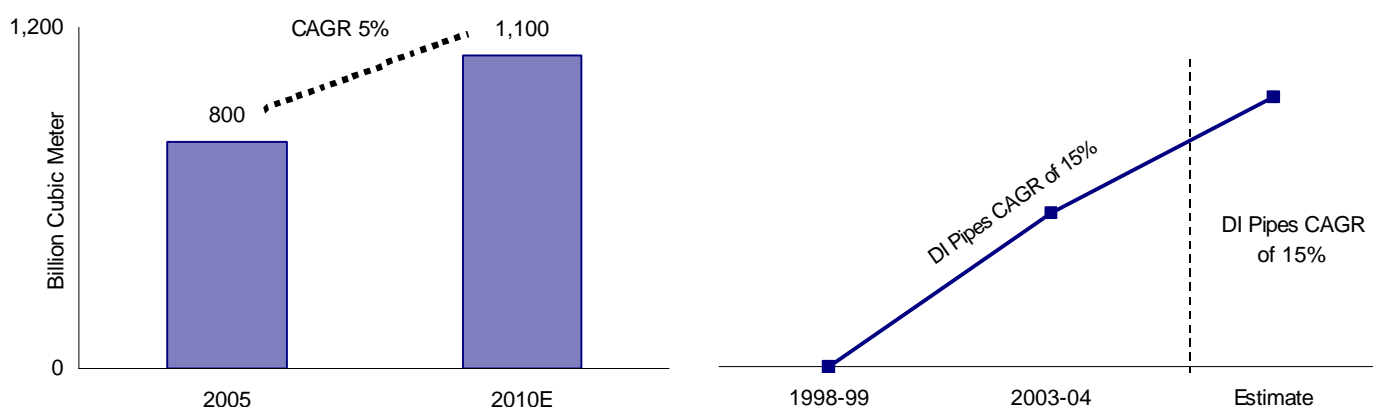
JINDAL SAW: INCREASING DI PIPE PRODUCTION (TON/ANNUM)

PARTICULARS	FY06	FY07E	FY08E	FY09E
Intalled Capacity	200,000	200,000	200,000	200,000
Production	91,000	126,000	176,000	200,000
Capacity Utilization (%)	46	63	88	100

Source: Company/Motilal Oswal Securities

INCREASING DEMAND FOR WATER...

... DRIVING UP DI PIPE DEMAND



Source: Cris-Infac

Robust order book, outstanding bids to ensure high sales growth

...and has a robust order book, providing good revenue visibility

Jindal Saw has an outstanding order book of Rs28.8b (US\$0.7b, not taking into account orders for US mill), all of which has to be completed by April/May 2008. This covers the first half of CY08, providing strong revenue visibility. The company has also participated in bids worth Rs75b (US\$1.8b), which would ensure continuous order flow.

US operations sold off – cash to be used for reducing debt

It has hived off its US operations for which it would receive US\$200m

Jindal Saw has hived off its US operations to group entity, JSW Steels, which valued the enterprise at an EV of US\$900m. Netting off for cash and taxes, Jindal Saw will receive approximately US\$200m. Of this, the company will utilize about US\$73m to augment its domestic pipe capacity – a new Lsaw plant of 200,000 ton capacity and a new Hsaw plant with 150,000 ton capacity. Exact locations of these two plants and deployment of the remaining cash are being worked out. Presently, the cash will be used for reducing debt.

The proceeds would be used to reduce debt

The rationale for sale of US operations is ownership. Jindal Saw's net ownership in the US operations was merely 30%. To further improve efficiencies, the company was required to invest significant cash in assets (not completely owned by Jindal Saw), and it did not have the resources for a total buyout. The company adopted a strategy of selling off its partly owned assets to create new, totally owned assets. Jindal Saw would continue to service the US markets via its Indian operations and sales of its spiral pipes would not be constrained. However, there would be restrictions on the sale of its longitudinal variety in US for three years (this deal is effective from 1 October 2007).

Approvals to ensure bid participation and continuous order flow

While its established track record would help ensure continuous order flow...

Amongst the largest pipe manufacturers in Asia outside Japan, Jindal Saw is the first Indian company to make Lsaw/Hsaw pipes. It has already made and supplied over 11,000km of linepipes since inception in 1984. It has accreditation from most of the oil & gas majors including British Gas, Saudi Aramco, Bechtel, Hyundai, China National Petroleum Corporation, Shell Global Solutions, AGIP, Pemex, Egyptian Natural Gas Co, Indian Oil Corporation, Gail, Petronet LNG, ONGC, Reliance, HPCL and BPCL, among others.

Margin expansion via cost cutting and operational efficiency

...cost cutting and operational efficiency would enable margin expansion

By deploying various strategies such as commissioning a sinter plant (commissioned: February/March 2007; capacity: 1,200 ton/day) in its DI facility, setting up a waste heat recovery based captive power plant of 15MW to utilize coke oven gases (likely to get commissioned in the second half of FY07) and by enhancing the production capacity of seamless division by installing the PQF mill (by June/July 2008), Jindal Saw would see its margins expanding, going forward. This exercise would cost the company Rs4.5b.

JINDAL SAW: EXPANDING MARGINS (RS M)

	FY04	FY05	FY06	FY07E	FY08E	FY09E
Gross Sales	11,269	23,930	40,806	62,257	39,657	53,050
Excise Duty	412	792	2,075	3,113	1,983	2,653
Net Sales	10,856	23,138	38,731	59,144	37,674	50,398
YoY Growth (%)		113.1	67.4	52.7	-36.3	33.8
EBITDA	1,347	2,671	4,066	7,167	6,151	9,196
EBITDA Margin (%)	12.4	11.5	10.5	12.1	16.3	18.2
EBIT	1,128	2,317	3,547	6,411	5,401	8,296
EBIT Margin (%)	10.4	10.0	9.2	10.8	14.3	16.5
Reported Net Profit	581	1,005	1,671	7,451	7,082	4,969
% of Net Sales	5.4	4.3	4.3	12.6	18.8	9.9
YoY Growth (%)		72.9	66.3	345.8	-5.0	-29.8

Source: Motilal Oswal Securities

Valuations attractive; Buy

Buy with a target price of Rs884 – 51% upside

The stock trades at 8.2x FY07E EPS of Rs71.2 (5.4x EV/EBITDA), 10.7x FY08E EPS of Rs54.8 (3.6x EV/EBITDA) and 6.6x FY09E EPS of Rs88.4 (2.2x EV/EBITDA). We recommend **Buy**, with a price target of Rs884 (P/E of 10x, EV/EBITDA of 4.1x FY09E).

Company background

Jindal Saw, a constituent of the US\$4b OP Jindal group, became operational in 1984. The erstwhile Saw Pipes Ltd, it is largely engaged in manufacturing and coating of submerged arc welded pipes (longitudinal & spiral), popularly known as saw pipes. In fact, the company has pioneered the manufacturing of saw pipes in India.

From a single product organization, Jindal Saw has grown to be a 'Total Pipe Solutions' company today. The business operations of the company are structured as **saw pipes, seamless tubes and ductile iron spun pipes**. Each business operates independently.

Product portfolio overview

Saw pipes: The company is in the business of making large diameter saw pipes (Lsaw and Hsaw) using the both the UOE and the JCO processes. Saw pipes are extensively used in the energy sector for cross-country transportation of oil and gas. Demand for Lsaw and Hsaw pipes is driven by oil & natural gas exploration and the transportation segment.

Lsaw i.e. longitudinal submerged arc welded pipes, vary from 16" OD to 56" OD and up to 38mm thickness whereas Hsaw i.e. helical submerged arc welded pipes, vary from 20" to 108" OD and up to 18mm thick. Its saw pipe units are located at Kosi Kalan in UP, Nanakapaya and Samaghogha in Mundra, Gujarat.

Seamless tubes & pipes: This unit produces tubes & pipes from various grades of stainless steel, carbon steel and alloy steel. Hot finished carbon and alloy steel seamless tubes & pipes vary in diameter from 44.5mm-168.3mm, the wall thickness ranging from 3.5mm-168.3mm. The cold finished stainless steel seamless tubes & pipes vary in diameter from 6mm-73mm, the wall thickness ranging from 0.6mm-6.0mm. OCTG product casings vary in OD from

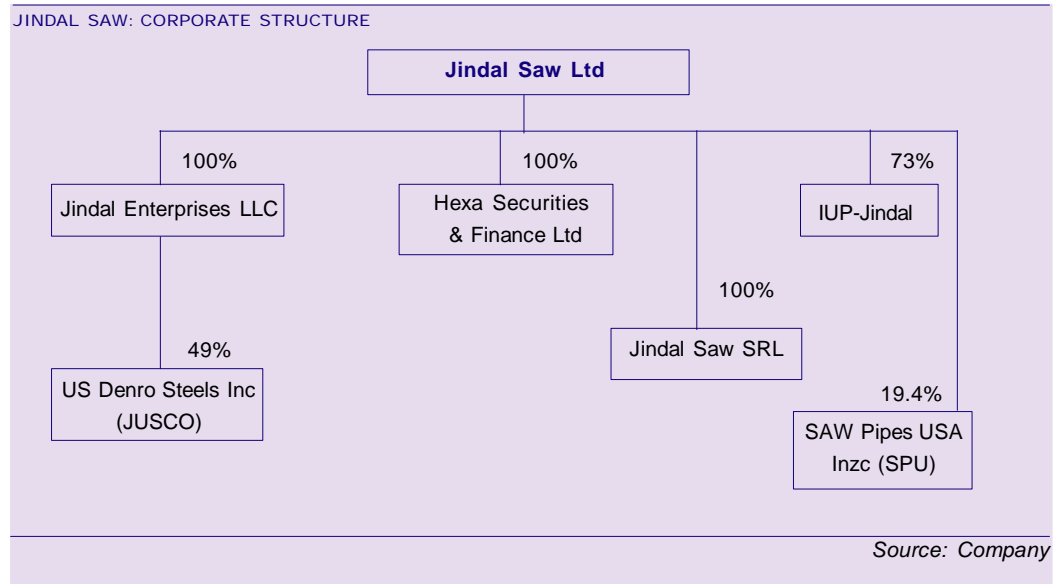
4.5" to 6.0" while OCTG pipes vary in diameter from 2.0" to 4.5". Seamless pipes & tubes are made at Nashik in Maharashtra. Carbon, alloy and stainless steel seamless tubes, manufactured by the conical piercing process, are used in the oil as well as non-oil segments. The energy segment is the biggest consumer of seamless tubes.

DI or ductile iron pipes: A recent addition to Jindal Saw's product portfolio is DI or ductile iron pipes. DI pipes manufactured by the company vary in diameter from 80mm-1,000mm, the standard length being 5.5 meters and 6 meters. The product conforms to both Indian Standard ISO 8329 and International Standard ISO 9001, which enables the company to cater to the Indian and global markets. DI pipes are utilized to transport water and sewage; the main buyers of these products are government bodies and state municipal corporations that require to install them for their various public water supply and sewage schemes.

The ductile iron pipe facility is located at Samaghogha in Mundra, close to the Mundra and Kandla ports. This facility includes a coke oven battery plant (installed capacity: 200,000 ton/annum); a blast furnace (installed capacity: 250,000 ton/annum) and a DI facility (installed capacity: 200,000 ton/annum). The company has also set up a sinter plant at Samaghogha to enable usage of iron ore fines instead of lumps.

Corporate structure & subsidiaries

Hexa Securities & Finance Company Limited and Jindal Enterprises, Llc USA are subsidiaries of Jindal Saw Limited. It has also floated a joint venture – IUP Jindal Metals and Alloys with Imphy Ugin Precision, a division of Arcelor, France, and holds 73% stake. The objective of setting up the joint venture is to manufacture high-precision metal for use in the electronics industry and other applications.



INCOME STATEMENT (RS MILLION)

Y/E MARCH	2005	2006	2007E	2008E	2009E
Net Sales	23,138	38,731	59,144	37,674	50,398
Change (%)	113.1	67.4	52.7	-36.3	33.8
EBITDA	2,671	4,066	7,167	6,151	9,196
Change (%)	98.3	52.2	76.3	-14.2	49.5
% of Net Sales	11.5	10.5	12.1	16.3	18.2
EBITDA Margin (%)	11.5	10.5	12.1	16.3	18.2
Depreciation	354	519	756	750	900
EBIT	2,317	3,547	6,411	5,401	8,296
Interest	985	1,290	1,252	860	852
Other Income	180	281	150	200	200
PBT & EO Items	1,512	2,538	9,309	8,741	7,645
EO Items (net)	3	0	0	0	0
PBT	1,515	2,538	9,309	8,741	7,645
Tax	507	867	1,858	1,659	2,676
Rate (%)	33.5	34.2	20.0	19.0	35.0
Reported PAT	1,007	1,671	7,451	7,082	4,969
Adjusted PAT	1,005	1,671	3,451	3,082	4,969
Change (%)	72.9	66.3	106.5	-10.7	61.2
PAT Adj for Preference	1,007	1,669	3,446	3,072	4,959
PAT Margin (%)	4.3	4.3	5.8	8.2	9.9

BALANCE SHEET (RS MILLION)

Y/E MARCH	2005	2006	2007E	2008E	2009E
Equity Share Capital	471	484	484	561	561
Pref. Share Capital	1,000	1,000	1,000	1,000	1,000
Optionally Con Warrants	0	117	117	0	0
Reserves	6,451	8,031	19,203	29,962	34,609
Net Worth	7,922	9,632	20,804	31,523	36,170
Loans	11,979	16,217	13,645	9,175	9,675
Net Deferred Tax Liability	599	763	750	750	750
Minority Interest	0	151	156	161	161
Capital Employed	20,500	26,763	35,355	41,609	46,756
Gross Fixed Assets	8,665	11,207	14,255	17,155	19,655
Less: Depreciation	1,980	2,499	3,128	3,905	4,817
Net Fixed Assets	6,685	8,708	11,127	13,250	14,838
Capital WIP	1,177	1,546	500	600	600
Investments	868	836	850	850	850
Curr. Assets	16,782	27,976	37,835	37,715	44,535
Inventory	9,262	13,967	19,039	7,635	9,949
Debtors	3,335	7,608	12,153	6,709	8,975
Cash & Bank Balance	1,526	3,922	4,143	20,871	22,612
Loans & Advances	2,658	2,480	2,500	2,500	3,000
Current Liab. & Prov.	5,012	12,302	14,957	10,806	14,067
Creditors	3,754	9,930	11,140	7,741	10,356
Other Liabilities	887	1,477	2,917	2,064	2,762
Provisions	371	895	900	1,000	950
Net Current Assets	11,770	15,674	22,878	26,909	30,468
Misc. Exp. (not written off)	1	0	0	0	0
Application of Funds	20,500	26,764	35,355	41,609	46,756

E: M0St Estimates

RATIOS

Y/E MARCH	2005	2006	2007E	2008E	2009E
Basic (Rs)					
EPS	21.4	34.5	71.2	54.8	88.4
Growth (%)	35.1	61.4	106.4	-23.1	61.4
Cash EPS	28.9	45.3	169.7	139.6	104.6
Book Value	147.0	178.3	409.2	544.1	626.9
DPS	4.0	5.0	5.0	5.0	5.0
Payout (incl. Div. Tax.) (%)	0.2	0.1	0.0	0.0	0.1
Valuation (x)					
P/E		17.0	8.2	10.7	6.6
Cash P/E		12.9	3.5	4.2	5.6
Price/Book Value		3.3	1.4	1.1	0.9
EV/Sales		1.1	0.7	0.6	0.4
EV/EBITDA		10.2	5.4	3.6	2.2
Dividend Yield (%)		0.9	0.9	0.9	0.9
Profitability Ratios (%)					
RoE	12.7	17.3	16.6	9.7	13.7
RoCE	11.3	13.3	18.1	13.0	17.7
Turnover Ratios					
Debtors (Days)	53	72	75	65	65
Inventory (Days)	164	148	150	100	100
Creditor (Days)	67	106	110	120	120
Asset Turnover (x)	1.1	1.4	1.7	0.9	1.1
Leverage Ratio					
Debt/Equity (x)	1.6	1.8	0.7	0.3	0.3

CASH FLOW STATEMENT (RS MILLION)

Y/E MARCH	2005	2006	2007E	2008E	2009E
PBT before EO Items	1,512	2,538	9,309	8,741	7,645
Add: Depreciation	354	519	756	750	900
Interest	985	1,290	1,252	860	852
Less: Direct Taxes Paid	507	867	1,858	1,659	2,676
(Inc)/Dec in WC	-5,965	-1,509	-6,983	12,696	-1,818
CF from Operations	-3,622	1,971	2,477	21,387	4,903
(Inc)/Dec in FA	-2,180	-2,911	-2,130	-2,973	-2,488
(Pur)/Sale of Investments	-6	32	-14	0	0
CF from Investments	-2,186	-2,879	-2,144	-2,973	-2,488
Inc/(Dec) in Net Worth	3,710	468	4,005	3,965	0
Inc/(Dec) in Debt	4,349	4,238	-2,572	-4,470	500
Inc/(Dec) in Defferd Tax Liab.	133	164	-13	0	0
Less: Interest Paid	985	1,290	1,252	860	852
Dividend Paid	218	279	279	323	323
CF from Fin. Activity	6,990	3,302	-111	-1,687	-674
Inc/Dec in Cash	1,183	2,394	222	16,728	1,741
Add: Beginning Balance	345	1,526	3,922	4,143	20,871
Closing Balance	1,527	3,920	4,143	20,871	22,612

Welspun Gujarat Stahl

STOCK INFO.	BLOOMBERG
BSE Sensex: 17,614	WGS IN
S&P CNX: 5,184	REUTERS CODE
	WGSR.BO

22 October 2007

Buy

Initiating Coverage

Rs290

Y/E MARCH	2006#	2007	2008E	2009E
Net Sales (Rs m)	18,298	26,786	37,810	55,562
EBITDA (Rs m)	1,655	3,333	6,039	11,172
NP (Rs m)	614	1,428	2,829	4,904
EPS (Rs)	3.3	7.6	15.2	26.3
EPS Growth (%)	51.1	114.4	74.2	47.6
BV/Share (Rs)	76.8	92.5	135.9	210.9
P/E (x)	88.4	38.0	19.2	11.1
P/BV (x)	3.8	3.1	2.1	1.4
EV/EBITDA (x)	26.0	15.9	11.1	6.0
EV/ Sales (x)	2.4	2.0	1.8	1.2
RoE (%)	15.6	25.0	32.8	32.0
RoCE (%)	12.6	16.0	19.5	26.7

Fifteen months ended March 2006

KEY FINANCIALS

Shares Outstanding (m)	139.8
Market Cap. (Rs b)	40.6
Market Cap. (US\$ b)	1.0
Past 2 years Sales Growth (%)	21.0
Past 2 years NP Growth (%)	52.5
Dividend Payout (%)	0.1
Dividend Yield (%)	0.3

STOCK DATA

52-Week Range (H/L - Rs)	353/68
Major Shareholders (as of June 2007)	%
Promoters	42.7
Domestic Institutions	14.9
FII/FDIs	16.9
Others	25.6
Average Daily Turnover	
Volume ('000 shares)	2,585.4
Value (Rs million)	478.3
1/6/12 Month Rel. Performance (%)	-3/105/258
1/6/12 Month Abs. Performance (%)	2/131/298

Adequate capacity to drive volume growth till FY09: Having anticipated ensuing global demand for pipes, Welspun Gujarat has built up reasonable capacities in Lsaw, Hsaw and ERW pipes, which will ensure volume growth over the next two years.

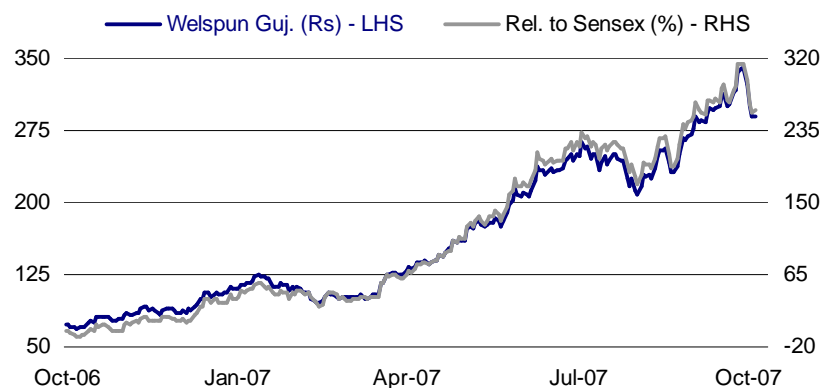
Strong order book, outstanding bids to ensure higher sales: The outstanding order book (Rs55b), to be executed by September 2008, would ensure earnings over the next one year. Moreover, the company's participation in bids (Rs100b) would ensure a continuous flow of orders till the end of FY09.

US venture to help feed US demand better: Besides providing volume growth, Welspun Gujarat's new US unit would ensure better servicing of the US market.

Plate mill to help save costs, expand margins from FY09: The company's new 1.2m ton plate and coil mill, likely to begin commercial production in March 2008, would reduce raw material cost and lead to margin expansion.

Valuations attractive; Buy: The stock trades at 38x FY07 diluted EPS of Rs7.6, 19.2x FY08E EPS of Rs15.2 and 11.1x FY09E EPS of Rs26.3 (6x EV/EBITDA). We recommend **Buy** with a price target of Rs400 (P/E of 15x, EV/EBITDA of 7.9x FY09E).

STOCK PERFORMANCE (ONE YEAR)



Welspun Gujarat is one of the largest pipe companies in India...

Adequate capacity to drive volume growth till FY09

Having anticipated overall demand potential for Lsaw/Hsaw pipes, Welspun Gujarat has built up reasonable capacities for Lsaw/Hsaw as well as ERW pipes. This should ensure volume growth over the next two years (see table below).

WELSPUN GUJARAT: INCREASING PRODUCTION (TON/ANNUM)

PARTICULARS	FY04	FY05	FY06	FY07E	FY08E	FY09E
Installed Capacity						
Lsaw			350,000	850,000	850,000	850,000
Hsaw			300,000	300,000	300,000	300,000
ERW			250,000	250,000	250,000	250,000
Total	380,000	730,000	900,000	1,400,000	1,400,000	1,400,000
Production	261,817	241,832	377,275	541,605	652,000	795,200
<i>Production Growth (%)</i>		-8	56	44	20	22
Capacity Utilization (%)	69	33	42	39	47	57

Source: Company/Motilal Oswal Securities

...and amongst the top-10 standalone pipe companies in the world

With the Anjar plant becoming operational, Welspun Gujarat has emerged as one of the largest pipe making companies in India and amongst the top-10 standalone pipe making companies in the world.

Strong order book, outstanding bids to ensure higher sales

It has an outstanding order book of Rs55b...

Welspun Gujarat has an outstanding order book of Rs55b (about US\$0.9b), comprising Rs25b longitudinal, Rs28b spiral and Rs2b ERW pipes. These orders have to be executed by September 2008, which would ensure growth for the next one year. Nearly 90% of this order book comprises exports, of which around 60% is for the North American markets. The company has bagged orders amounting to Rs29.3b (US\$709m) for supply of linepipes (spiral and longitudinal) for oil & gas applications. Of this, Rs18.35b came from Transcanada, Rs2b orders flowed from Kinder Morgan, a US-based oil & gas major, Rs7b from Latin America (Peru) and the rest from Reliance for its KG basin offshore under-sea pipelines.

...and has participated in bids worth Rs100b

Moreover, Welspun Gujarat has participated in bids worth Rs100b (or US\$2.3b), which would ensure a continuous flow of orders well into FY09. The company has a strike rate of 20-25%, and in certain orders it has minimal competition.

Approvals to ensure bid participation and continuous order flow

It is approved by 44 oil & gas majors across the globe...

Receiving and getting approvals/certification/accreditation from oil & gas companies is a prerequisite for getting orders. Welspun Gujarat is approved by about 44 oil & gas majors across the globe. Getting approvals takes time – 2-3 years from the date of commercial production and is a major entry barrier for new entrants. This is because pipes transport/carry critical materials such as oil & gas and inferior quality could prove dangerous to life and the environment. Users of pipes are wary of placing orders with new players and companies with established track record (like Welspun) score. In addition to Indian buyers such as Gas Authority of India Ltd, Indian Oil, ONGC, Reliance and BPCL, Welspun

Gujarat already has major global approvals in place (enumerated below), which enhances its chances of getting more orders.

WELSPUN GUJARAT: APPROVALS RECEIVED FROM OIL & GAS MAJORS

FY02	FY03	FY04	FY05	FY06
Elpaso	Unocal	Adco, UAE	Total, France	Knider Morgan
EGPC, Egypt	Bechtel	AGIP	Saudi Aramco	Great Nile Petroleum, Sudan
Gasco, Egypt	NPCC, Abu Dhabi	Gasco, UAE	Chevron, US	Hunt Oil Company
Petrojet, Egypt	Exxon, Mobil	Gazprom	Clough Eng, Australia	Energy Transfer
NAOC, Nigeria	Kaverner	Shell Petroleum	PGN, Indonesia	Talisman
MCDERMOTT	Saipem	PDO, Oman	MITCO, Malaysia	Occidental
Marathon, USA		PEDEC, Iran	Achilles, Norway	Anardarko
Kalanafit/NIOC, Iran		Qatar Petro	FPAL, UK.	Texas Gas
NIGC		SPDC, Nigeria	British Petroleum	
		Stolt Offshore, Nigeria, Technip	Petronas, Malaysia	

Source: Company/Motilal Oswal Securities

Impressive track record of supplying pipes

...and has an impressive track record of supplying pipes

Welspun Gujarat has an impressive track record – it has supplied pipes for the deepest offshore pipeline project (~3.2km) in the world at the Gulf of Mexico, USA. It has also executed a gas pipeline project for the US-based El Paso Energy, making it the first Indian company to execute a project of this nature in USA. It is also the first company in India to produce the highest recognized linepipe grade, the X-80.

WELSPUN GUJARAT: RECORD OF PIPELINE ORDERS EXECUTED

Some noticeable orders executed by the company in the past are:

✂	Deepest pipeline order in the Gulf of Mexico	US\$117m
✂	Biggest pipeline order in Iran	US\$100m
✂	PGN order in Indonesia	US\$111m
✂	Repeat order from PGN, Indonesia	US\$018m
✂	Russian company order in Algeria	US\$067m
✂	Repeat order from the Gulf of Mexico	US\$047m
✂	L&T order for GSPL, Gujarat	US\$79.54m
✂	Saudi Aramco order	US\$35m
✂	Exxon Mobil, USA	US\$113m
✂	Enterprise order	US\$142m
✂	AGP, Libya	Euro75m
✂	Kinder Morgan, USA	US\$61m

Source: Company/Motilal Oswal Securities

Setting up a 300,000 ton spiral pipe unit in the US

It is setting up a 300,000 ton spiral pipe unit in the US...

Welspun has opted out of its joint venture with Lone Star Technologies, US and is going alone with its plans to set up a US\$100m 300,000-ton spiral mill in Arkansas, US. The company took this decision after US Steel acquired Lone Star for about US\$2b in April 2007. Apart from providing volume growth, the new US unit would also ensure better servicing to pipe users in the US. Additionally, the new unit would help Welspun to save on

freight, which Indian companies currently have to pay for shipping their consignments to the US, as their plants are located in India.

Plate mill to help save costs, expand margins from FY09

...and a 1.2m ton plate and coil mill in India

Welspun is setting up a 1.2m ton plate and coil mill, commercial production of which will begin from March 2008. The project, once operational, would help reduce raw material cost and lead to margin expansion.

WELSPUN GUJARAT: NEW PLATE MILL TO ENABLE COST SAVING / MARGIN EXPANSION

ITEM	COST US\$/TON	PARTICULARS (RS M)	FY06	FY07	FY08E	FY09E
Slabs	600	Net Sales	18,298	26,786	37,810	55,562
Conversion	150	EBITDA	1,655	3,333	6,039	11,172
Total Cost	750	EBITDA (%)	9.0	12.4	16.0	20.1
CMP (Rs)	900					
Savings	150					

Source: Company/Motilal Oswal Securities

The new plate mill would reduce import dependence...

HR plates are the basic input for making pipes. Welspun Gujarat imports about 80% of its plate requirements from suppliers in Europe and the CIS (Dillinger, Voist Alpine, Posco & Azvostahl) as the maximum width available in India is about 3,200mm whereas the company uses plates in the range 1,270mm-4,500mm.

...and help save cost and expand margins

The company is disadvantaged on several counts owing to plate import: (1) freight costs increase production costs; (2) to ensure timely delivery of pipes, plates must be booked well in advance, resulting in locking of capital, and (3) quality concerns remain. To address such concerns and as a measure of backward integration, Welspun Gujarat in technical collaboration with VAl of UK, is implementing a 1.5m ton wide plate (X-80 and above grade plate, width up to 5 meters and wall thickness up to 65mm) and coil mill project (X-80 and above grade coil, width up to 2.8 meters and wall thickness up to 25mm) at Anjar. This is likely to begin commercial production by December 2007.

Valuations attractive; Buy

Buy with a price target of Rs400 – 37.7% upside

The stock trades at 38x FY07 diluted EPS of Rs7.6, 19.2x FY08E EPS of Rs15.2 and 11.1x FY09E EPS of Rs26.3 (6x EV/EBITDA). We recommend **Buy** with a price target of Rs400 (P/E of 15.2x, EV/EBITDA of 7.9x FY09E).

Company background

Incorporated in 1995, Welspun Gujarat Stahl Rohren, was promoted by Mr GR Goenka, Mr BK Goenka and Mr RR Mandawewala. A part of the Welspun group (asset base: US\$1.2b and likely FY07 group sales US\$1b+), the company makes submerged arc welded (SAW) pipes (longitudinal and spiral variety), also called linepipes. It also makes electric resistant welded (ERW) pipes and undertakes the coating. The company boasts one of the largest saw pipe capacities in Asia, ex-Japan.

Evolution

- Year 1995:** Incorporated
- Year 1997:** 1st spiral mill commissioned at Dahej, Gujarat.
- Year 1999:** New Lsaw (longitudinal submerged arc welded) pipe mill commissioned at Dahej. Capacity 350,000 ton/annum.
- Year 2000:** Coating plant commissioned at Dahej in JV with Eupec Pipe Coating. 2nd largest coating company, globally.
- Year 2002:** Supplies pipes to Gulf of Mexico (offshore) project. 1st company from India to do so.
- Year 2004:** Commissions new ERW mill at Anjar. Merger of coating JV with Welspun Gujarat.
- Year 2005:** Inaugurates Welspun City at Anjar in Kutch, Gujarat. Includes two new spiral plants, bending facility, and additional coating plants.
- Year 2008:** Plate-cum-coil mill to start at Anjar.

Current products, usage segments

Welspun Gujarat makes Lsaw (longitudinal submerged arc welded pipes), Hsaw (helically submerged arc welded pipes or spiral pipes), ERW (electrical resistance welded pipes, also known as HFI or high frequency induction pipes). It also has coating facilities at its plants located at Dahej and Anjar, in Gujarat. While longitudinal pipes (Lsaw) are used for offshore and onshore transportation of high-pressure

oil & gas, spiral or Hsaw pipes are used for onshore transportation of high/low pressure oil & gas, and transportation of water. ERW pipes are used as last link, i.e. used for the low-pressure water/distribution network.

WELSPUN GUJARAT: PRODUCT RANGE AND CAPACITY

PARAMETERS	LONGITUDINAL	SPIRAL	ERW
Capacity (tons)	850,000	300,000	250,000
Technology	JCO, SMS Meer, Germany	Capello Tubi, Italy	
Outer Diameter	16" to 60"	18" to 100"	1.5" to 16"
Thickness	6mm to 65mm	upto 25mm	upto 13mm
Length	upto 12.2m	6.0m to 12.5m	upto 18m
Grades Possible	AP15L, 2B, IS upto X-80	AP15L B upto X-80	AP15L upto X-70

Source: Company/Motilal Oswal Securities

The company supplements its pipe manufacturing capacity with its coatings facility for 6.24m square meters/annum.

WELSPUN GUJARAT: PIPE COATING FACILITIES

Capacity

Over 6.25m square meters/annum

Location

Dahej: Started in 2000

Anjar: Started in 2005

Production Program

External

3-component polyolefin coatings: 3LPE, 3LPP

Fusion-bonded-epoxy coating

Modified FBE-coatings (dual layer/rough coat)

Bitumen coating

Internal

Internal epoxy coating for gas & water pipelines

Special Coatings

Coating of bends

Source: Company/Motilal Oswal Securities

New plate mill project

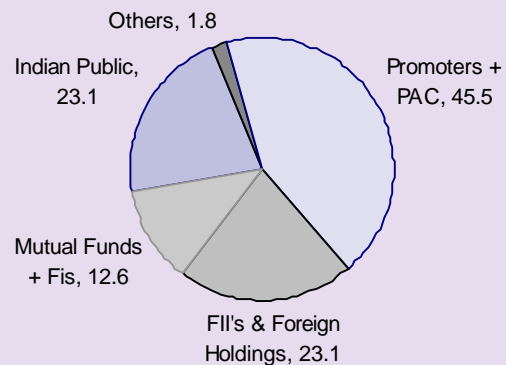
Welspun Gujarat has plans to set up a plate mill; the project will help contain costs. The Rs18b project is fully funded by way of 0% coupon, US\$75m FCCB, US\$25m preference shares/warrants, loans at 8% and internal accruals. The project includes provision of a captive power plant and a steckel mill.

WELSPUN GUJARAT: PROJECT COST, FUNDING DETAILS FOR PLATE MILL

PARTICULARS	(RS M)	INSTRUMENT	(RS M)
Land & Site	200	Equity/Warrants	
Development	US\$25m to Promoters	1,125	
Buildings	2,065	FCCB (US\$75m, 0% coupon, convertible at Rs162/share)	3,346
Plant & Machinery	12,472		
Others	1,335		
Preoperative Expenses	1,288	Loans @ 8% per Annum	12,900
Contingency	250	Internal Accruals	739
Power Plant	500		
Total Cost	18,110	Total	18,110

Source: Company/Motilal Oswal Securities

WELSPUN GUJARAT: SHAREHOLDING PATTEN (%)



Source: Company/Motilal Oswal Securities

INCOME STATEMENT						(RS MILLION)					
Y/E MARCH	2005	2006	2007	2008E	2009E						
Net Sales	10,385	18,298	26,786	37,810	55,562						
Change (%)	25.5	76.2	46.4	41.2	46.9						
EBITDA	683	1,655	3,333	6,039	11,172						
Change (%)	-50.2	142.4	101.3	81.2	85.0						
% of Net Sales	6.6	9.0	12.4	16.0	20.1						
EBITDA Margin (%)	6.6	9.0	12.4	16.0	20.1						
Depreciation	241	352	475	757	1,885						
EBIT	442	1,304	2,858	5,282	9,288						
Interest	203	419	708	1,035	2,034						
Other Income	262	19	43	40	120						
PBT & EO Items	501	904	2,193	4,287	7,374						
Extra-ordinary Items (net)	3	0	0	0	0						
PBT	503	904	2,193	4,287	7,374						
Tax	163	290	765	1,458	2,470						
Rate (%)	32.4	32.1	34.9	34.0	33.5						
Reported PAT	340	614	1,428	2,829	4,904						
Adjusted PAT	338	614	1,428	2,829	4,904						
Change (%)	-53.0	81.8	132.6	98.1	73.3						
Preference Dividend	0.0	0.0	0.0	0.0	0.0						
PAT Adj for Preference	340	614	1,428	2,829	4,904						
PAT Margin (%)	3.3	3.4	5.3	7.5	8.8						

BALANCE SHEET						(RS MILLION)					
Y/E MARCH	2005	2006	2007	2008E	2009E						
Equity Share Capital	535	644	699	795	939						
Pref. Share Capital	221	221	0	0	0						
Reserves	2,172	4,083	5,768	10,006	18,864						
Net Worth	2,928	4,948	6,467	10,801	19,803						
Loans	3,847	8,027	15,152	20,482	17,167						
Net Deferred Tax Liability	539	701	794	897	1,355						
Capital Employed	7,314	13,744	22,481	32,180	38,325						
Gross Fixed Assets	5,033	7,893	9,112	28,747	30,624						
Less: Depreciation	1,058	1,402	1,877	2,634	4,519						
Net Fixed Assets	3,975	6,490	7,235	26,112	26,104						
Capital WIP	1,376	3,623	9,214	2,000	1,000						
Investments	53	0	256	0	0						
Curr. Assets	9,694	13,024	16,313	16,320	28,138						
Inventory	3,757	5,429	5,142	7,002	10,238						
Debtors	2,623	3,070	5,871	7,873	11,569						
Cash & Bank Balance	2,461	3,067	3,390	335	5,331						
Loans & Advances	853	1,459	1,910	1,110	1,000						
Current Liab. & Prov.	7,785	9,393	10,537	12,251	16,918						
Creditors	7,594	8,949	9,960	11,751	16,418						
Other Liabilities	56	82	108	100	100						
Provisions	135	362	469	400	400						
Net Current Assets	1,909	3,631	5,777	4,069	11,220						
Application of Funds	7,313	13,744	22,481	32,181	38,325						

E: MOSI Estimates

RATIOS					
Y/E MARCH	2005	2006	2007	2008E	2009E
Basic (Rs)					
EPS	3.2	3.3	7.6	15.2	26.3
Growth (%)	19.3	3.2	132.9	98.1	73.3
Cash EPS	5.4	7.5	13.6	22.6	36.4
Book Value	54.7	76.8	92.5	135.9	210.9
DPS	0.0	0.5	1.0	1.0	1.0
Payout (incl. Div. Tax.) (%)	0.0	0.1	0.1	0.1	0.1
Valuation (x)					
P/E		88.4	38.0	19.2	11.1
Cash P/E		38.7	21.3	12.9	8.0
Price/Book Value		3.8	3.1	2.1	1.4
EV/Sales		2.4	2.0	1.8	1.2
EV/EBITDA		26.0	15.9	11.1	6.0
Dividend Yield (%)		0.2	0.3	0.3	0.3
Profitability Ratios (%)					
RoE	13.4	15.6	25.0	32.8	32.0
RoCE	12.2	12.6	16.0	19.5	26.7
Turnover Ratios					
Debtors (Days)	92	61	80	76	76
Inventory (Days)	166	143	93	99	99
Creditor (Days)	286	196	155	135	135
Asset Turnover (x)	1.4	1.3	1.2	1.2	1.4
Leverage Ratio					
Debt/Equity (x)	1.5	1.8	2.5	2.0	0.9

CASH FLOW STATEMENT						(RS MILLION)					
Y/E MARCH	2005	2006	2007	2008E	2009E						
PBT before EO Items	501	904	2,193	4,287	7,374						
Add: Depreciation	241	352	475	757	1,885						
Interest	203	419	708	1,035	2,034						
Less: Direct Taxes Paid	163	290	765	1,458	2,470						
(Inc)/Dec in WC	1,272	-1,117	-1,822	-1,347	-2,156						
CF from Operations	2,054	268	789	3,274	6,666						
(Inc)/Dec in FA	-2,818	-5,113	-6,810	-12,421	-877						
(Pur)/Sale of Investments	31	53	-256	256	0						
CF from Investments	-2,787	-5,061	-7,066	-12,165	-877						
Inc/(Dec) in Net Worth	433	1,539	231	1,596	4,285						
Inc/(Dec) in Debt	2,195	4,180	7,125	5,330	-3,315						
Inc/(Dec) in Defferd Tax Liab.	162	162	93	103	458						
Less: Interest Paid	203	419	708	1,035	2,034						
Dividend Paid	0	64	140	159	187						
CF from Fin. Activity	2,587	5,398	6,602	5,835	-793						
Inc/Dec in Cash	1,854	606	324	-3,055	4,997						
Add: Beginning Balance	608	2,461	3,067	3,390	335						
Closing Balance	2,461	3,067	3,391	335	5,332						

Maharashtra Seamless

STOCK INFO.	BLOOMBERG
BSE Sensex: 17,614	MHS IN
S&P CNX: 5,184	REUTERS CODE
	MHSM.BO

22 October 2007

Buy

Initiating Coverage

Rs458

Y/E MARCH	2006	2007E	2008E	2009E
Net Sales (Rs m)	9,662	13,947	18,173	22,052
EBITDA (Rs m)	2,080	3,421	4,165	5,045
NP (Rs m)	1,391	2,350	2,801	3,350
EPS (Rs)	48.3	33.6	39.5	47.2
EPS Growth (%)	64.5	-30.7	17.6	19.6
BV/Share (Rs)	143.6	134.8	168.6	209.0
P/E (x)	9.5	13.6	11.6	9.7
P/BV (x)	3.2	3.4	2.7	2.2
EV/EBITDA (x)	7.4	7.1	7.0	5.5
EV/Sales (x)	1.6	1.7	1.6	1.2
RoE (%)	38.3	34.3	26.0	22.6
RoCE (%)	30.2	33.4	32.2	29.1

KEY FINANCIALS

Shares Outstanding (m)	71.0
Market Cap. (Rs b)	32.5
Market Cap. (US\$ b)	0.8
Past 2 yrs. Sales Growth (%)	20.2
Past 2 yrs. NP Growth (%)	30.0
Dividend Payout (%)	15.0
Dividend Yield (%)	0.8

STOCK DATA

52-Week Range (H/L - Rs)	675/380
Major Shareholders (as of June 2007)	%
Promoters	41.7
Domestic Institutions	14.6
FIs/FDIs	15.4
Others	28.3
Average Daily Turnover	
Volume ('000 shares)	238.3
Value (Rs million)	124.7
1/6/12 Month Rel. Performance (%)	-30/-44/-23
1/6/12 Month Abs. Performance (%)	-26/-18/16

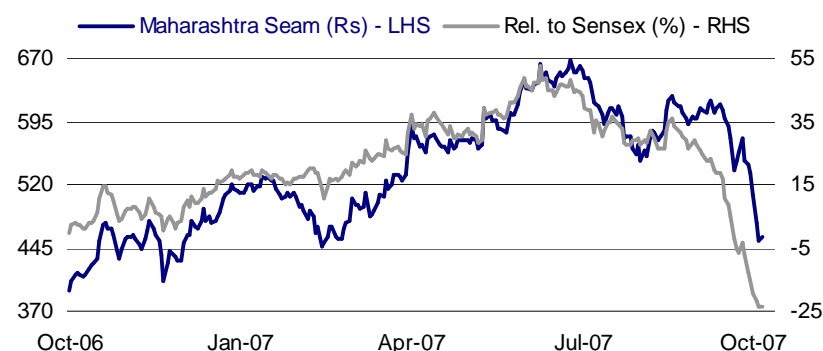
Largest seamless pipes company in India: Maharashtra Seamless (MSL) is India's largest seamless pipe manufacturer. It also boasts the largest product range in seamless variety, including 14" pipes, an import substitute for which it is the only manufacturer in India. MSL is also the only company in India to make ERW pipes of 16"-21" OD.

Mainly serves oil & gas sector; robust demand to sustain: MSL derives about 65% of its revenues from supplies to the oil & gas sector. This will benefit it immensely, as significant demand for seamless pipes is likely to arise from E&P.

Low-cost expansion strategy has resulted in higher margins: Ability to set up low-cost plants provides significant cost advantages, which is captured in its margins. Beginning with the first plant set up in the nineties at about Rs1b (which otherwise would have cost at least Rs3b) all its subsequent expansions have been at low cost.

Valuations attractive; Buy: The stock trades at 11.6x FY08E EPS of Rs39.5 and 9.7x FY09E EPS of Rs47.2 (5.5x FY09E EV/EBITDA). We recommend **Buy**, with a target price of Rs708 (P/E of 15x; EV/EBITDA of 9x FY09E).

STOCK PERFORMANCE (ONE YEAR)



Maharashtra Seamless is the largest seamless pipe company in India...

Largest seamless pipes company in India

Maharashtra Seamless (MSL) is the largest seamless pipe manufacturer in India, with its existing capacity being more than twice the capacity of its nearest rival, ISMT. Having begun operations in 1992, MSL has expanded capacities systematically and at low cost. It also boasts the widest product range in the seamless category. We believe it will remain the largest seamless pipe manufacturer in India at least till FY09, despite expansions by all players in the industry.

MSL: THE LARGEST SEAMLESS PIPES COMPANY IN INDIA (TON/ANNUM)

	MSL	ISMT	JINDAL SAW
March 31, 2004	125,000	150,000	100,000
March 31, 2005	125,000	150,000	100,000
March 31, 2006	225,000	165,000	100,000
March 31, 2007	350,000	165,000	100,000
March 31, 2008	425,000	475,000	100,000
March 31, 2009	500,000	475,000	250,000

Source: Company/Motilal Oswal Securities

...and is the only domestic player in the 14" pipe category

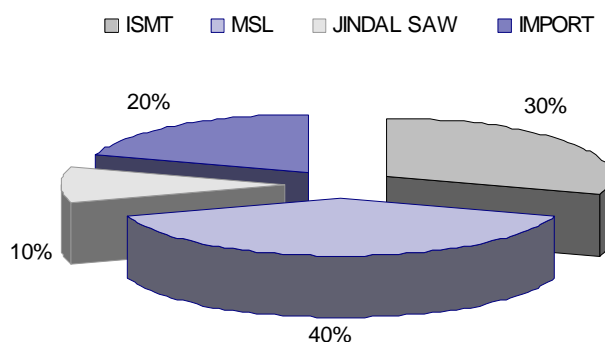
MSL is the only player in the 14" pipe category in India. The 14" seamless pipe is an import substitute, which is used in high-pressure applications in oil & gas drilling and exploration. Before MSL began manufacturing this product in FY06, it was entirely imported. MSL is also the only company in India making ERW pipes beyond 16" OD and up to 21" OD. ERW pipes are primarily used for transportation of oil & gas and water in low-pressure applications.

MSL: THE WIDEST RANGE OF SEAMLESS PIPES IN INDIA

	MSL	ISMT	JINDAL SAW
Seamless Pipes—OD 7"	Yes	Yes	Yes
Seamless Pipes—OD 14"	Yes	No	No
ERW Pipes	Yes	No	No

Source: Company/Motilal Oswal Securities

MSL: THE HIGHEST SEAMLESS PIPES MARKET SHARE IN INDIA



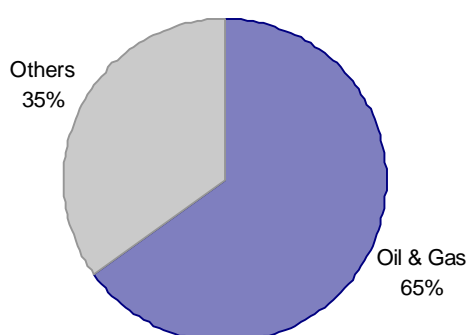
Source: Company/Motilal Oswal Securities

It derives most of its revenue from the oil & gas sector...

Mainly serves oil & gas sector; robust demand to sustain

MSL derives about 65% of its revenues from supplies to the oil & gas sector and the balance 35% revenues from supplies to boilers, heat exchangers, automobiles, refineries and process industries, which too are witnessing strong growth due to overall growth in the economy. We note that significant demand growth for seamless pipes arises from the oil E&P segment and we believe that MSL is set to benefit the most.

MSL: REVENUE BREAK-UP BY INDUSTRY



Source: Company/Motilal Oswal Securities

The current demand for seamless pipes in India is estimated at around 0.5m ton per annum and growing at 20% per annum. Demand for seamless pipes is closely linked to oil exploration & production activity, and with crude prices going through the roof, E&P activity globally is expected to remain strong.

...which is making substantial investments in E&P activity

According to the International Energy Agency (IEA), an investment of about US\$4t is expected in E&P during CY01-CY30, which would drive demand for seamless pipes. NELP, the Indian government's initiative to expand oil & gas finds, has attracted substantial interest from foreign as well as Indian players since FY97. Until date, more than 100 blocks have been awarded for E&P. According to Director General of Hydrocarbons (DGH), well drilling activity is likely to increase significantly going forward, in turn resulting in strong demand growth for seamless pipes.

DRILLING OF OIL WELLS TO INCREASE IN INDIA

	FY05-06	FY07-08E	FY09-10E	FY11-12E	TOTAL
On Land	51	116	82	60	309
Shallow Water	37	83	67	65	252
Deep Water	106	102	29	9	246
Total	194	301	178	134	807

Source: Industry

Low-cost expansion strategy to help record higher margins

A key advantage that Maharashtra Seamless has versus competitors is its ability to set up low-cost plants and expand capacities at minimal rates. This provides it with significant cost advantages that translate into improved margins. Right from the first plant set up in the nineties at about Rs1b (v/s at least Rs3b) all its subsequent expansions have been at low cost. The company is able to incur low cost of set-up, as it is equipped with all basic facilities required such as land, power etc. and it has to merely put in place the balance equipment and finishing lines.

MSL: LOW-COST CAPACITY BUILT-UP

YEAR	CAPACITY (TON/ANNUM)	INVESTMENT (RS B)	DESCRIPTION
March 31, 2004	125,000	0	
March 31, 2005	125,000	0	
March 31, 2006	225,000	1.50	14" plant
March 31, 2007	350,000	0.25	Expanding 14" & 7" capacity
March 31, 2008	425,000	0.35	Exp 7" capacity
March 31, 2009	500,000	0.50	Exp 14" capacity

Source: Company/Motilal Oswal Securities

By investing merely Rs2.6b, the company has set up a capacity of 500,000 ton – its capacity installation cost is just about Rs5,200/ton. Its cost of expanding capacity from 125,000 ton to 500,000 ton is about Rs6,933/ton. In contrast, a greenfield capacity would cost not less than Rs50,000/ton.

Strong order book provides revenue visibility

Its strong order book provides good revenue visibility

MSL's current order book of Rs11b offers strong revenue visibility for FY08. This covers almost 61% of the FY08E net sales of Rs18.2b. Considering strong demand ensuing from E&P, we expect MSL to continue to receive strong orders from oil companies:

MSL: ORDER BOOK BUILD-UP

YEAR	ORDER BOOK (RS B)	NET SALES (RS B)
March 31,2005	5.0	7.7
March 31,2006	7.0	9.7
March 31, 2007	11.0	13.9
March 31, 2008	13.0	18.2
March 31, 2009	15.0	22.1

Source: Company/Motilal Oswal Securities

Capacity expansion to drive up volumes

MSL has built up adequate capacities, taking advantage of its low cost structure. We believe this build-up will provide it volume growth over the next two years at least.

MSL: INCREASING CAPACITY / PRODUCTION (TON/ANNUM)

	FY04	FY05	FY06	FY07	FY08E	FY09E
Upto 7"	125,000	125,000	125,000	150,000	175,000	200,000
Upto 14"	0	0	100,000	200,000	250,000	300,000
Total	125,000	125,000	225,000	350,000	425,000	500,000
Production	113,547	119,687	149,000	228,616	306,445	367,690
Capacity Utilization						
Upto 7"			96.0	85.2	85.7	80.0
Upto 14"			29.0	50.4	62.6	69.2
<i>Total (%)</i>	<i>91</i>	<i>96</i>	<i>66</i>	<i>65</i>	<i>72</i>	<i>74</i>
ERW Pipes						
Installed Capacity (MT)	100,000	200,000	200,000	200,000	200,000	200,000
<i>Capacity Utilization (%)</i>	<i>61</i>	<i>43</i>	<i>42</i>	<i>45</i>	<i>55</i>	<i>70</i>

Source: Company/Motilal Oswal Securities

Moreover, in March 2007, the company has set up its coating plant, which would lead to improvement in capacity utilization of the ERW pipe mill. Coated pipes are value-added products, which increase the durability of pipes. There has been significant demand increase for coated pipes recently and this trend is expected to accelerate ahead.

Highest margins amongst peers

Its margins are the highest in its peer set

MSL boasts the highest margins amongst peers, as shown in the table below. However, we note that Jindal Saw is not comparable with MSL and ISMT, as its operations comprise several varieties of pipes, whereas MSL and ISMT are focused seamless pipe producers.

MSL: BEST AMONGST PEERS IN TERMS OF MARGINS

KEY MATRICES		MSL	JINDAL SAW	ISMT
EBITDA Margin (%)	FY07A	24.5	12.0	22.2
	FY08E	22.9	16.3	22.9
	FY09E	22.9	18.3	22.9
EBIT Margin (%)	FY07A	23.3	10.8	17.5
	FY08E	21.8	14.4	18.2
	FY09E	21.9	16.5	18.8
PAT Margin (%)	FY07A	16.8	5.5	11.0
	FY08E	15.4	8.5	12.2
	FY09E	15.2	10.2	12.3

Source: Motilal Oswal Securities

Impressive client list and vendor registration

MSL has one of the most impressive client lists, though ONGC remains its biggest client until date. It is also registered with many big oil companies globally such as Energy Tubular, USA; Ministry of Oil & Gas, Oman; etc.

Valuations attractive; Buy

Buy with a target price of Rs708 – 54.7% upside

The stock trades at 11.6x FY08E EPS of Rs39.5 and 9.7x FY09E EPS of Rs47.2 (5.5x FY09E EV/EBITDA). We recommend **Buy**, with a target price of Rs708 (P/E of 15x; EV/EBITDA of 9x FY09E).

Company background

Maharashtra Seamless (MSL), incorporated in 1988, is the flagship company of the DP Jindal group. It manufactures carbon and alloy steel seamless pipes and ERW pipes at its plant in Nagothane, Maharashtra, in technical collaboration with Mannesmann Demag, Germany.

Seamless pipes are extensively used in oil exploration, boilers, ball bearings, roller bearings, automobile, fertilizer and the petrochemical industries. Major ERW applications are in natural gas/oil, diesel, drinking water and sewage/water treatment. The 7" seamless pipes are built using CPE technology while the plug mill technology is used to make the 14" pipes. ERW pipes, on the other hand, utilize the high frequency induction welding technology.

The company also has a presence in the power segment, with 20 windmills (wind turbine generators), each with a capacity of 350KW, aggregating 7MW, for captive consumption. In 1991-92, it was India's first company to set up a 50,000-ton plant to manufacture seamless pipes and tubes by the cross-piercing elongation process.

MSL also has plans to implement a strategic backward integration project at Dubari, Orissa to manufacture billets – the main raw material for seamless pipes – with 500,000 ton capacity at an estimated cost of Rs5.5b. However, the project is currently on the backburner following delays in obtaining land clearances from the Orissa government.

Evolution

- 1988:** Incorporated
- 1992:** Plant commissioned & IPO launched
- 1993:** API certification and production of casing & linepipes
- 1995:** IBR certification by Central Boiler Board

MSL: CUSTOMER PROFILE



Source: Company

- 1996:** ISO certification by BVQI
- 2000:** ERW plant upto 21" OD commissioned
- 2001:** 7MW wind power plant commissioned
- 2004:** Higher diameter seamless pipe upto 14" OD commissioned
- 2005:** JV facility with Hydril USA for premium connections commissioned. Launched foreign currency convertible bonds (FCCBs) issue of US\$75m. As of date, 78% of the issue size has been converted in equity shares.
- 2006:** Started setting up plant for coating facility for oil & gas sector. Awarded "Best under a billion company" by Forbes Asia Magazine

INCOME STATEMENT					
(RS MILLION)					
Y/E MARCH	2005	2006	2007E	2008E	2009E
Net Sales	7,694	9,662	13,947	18,173	22,052
Change (%)	56.6	25.6	44.4	30.3	21.3
EBITDA	1,285	2,080	3,421	4,165	5,045
Change (%)	28.1	61.8	64.5	21.8	21.1
% of Net Sales	16.7	21.5	24.5	22.9	22.9
EBITDA Margin (%)	16.7	21.5	24.5	22.9	22.9
Depreciation	105	146	171	203	225
EBIT	1,180	1,934	3,250	3,963	4,820
Interest	38	48	33	51	82
Other Income	120	182	317	300	300
PBT & EO Items	1,262	2,068	3,534	4,211	5,038
Extra-ordinary Items (net)	3	-5	0	0	0
PBT	1,265	2,063	3,534	4,211	5,038
Tax	414	673	1,184	1,411	1,688
Rate (%)	32.7	32.6	33.5	33.5	33.5
Reported PAT	851	1,391	2,350	2,801	3,350
Adjusted PAT	849	1,396	2,350	2,801	3,350
Change (%)	18.8	64.5	68.3	19.2	19.6
Preference Dividend	0.0	0.0	0.0	0.0	0.0
PAT Adj for Preference	849	1,396	2,350	2,801	3,350
PAT Margin (%)	11.0	14.4	16.8	15.4	15.2

BALANCE SHEET					
(RS MILLION)					
Y/E MARCH	2005	2006	2007E	2008E	2009E
Equity Share Capital	288	288	355	355	355
Reserves	2,840	3,851	9,213	11,609	14,473
Net Worth	3,128	4,139	9,567	11,963	14,828
Loans	1,084	4,930	1,958	2,217	2,372
Net Deferred Tax Liability	342	388	400	400	400
Capital Employed	4,554	9,457	11,925	14,580	17,600
Gross Fixed Assets	2,869	3,367	3,880	4,230	4,780
Less: Depreciation	578	723	894	1,097	1,322
Net Fixed Assets	2,291	2,644	2,986	3,134	3,458
Capital WIP	408	163	150	200	150
Investments	193	205	220	220	220
Curr. Assets	2,476	7,655	10,023	12,847	15,934
Inventory	1,331	2,755	2,936	3,832	4,674
Debtors	964	1,400	2,102	2,738	3,323
Cash & Bank Balance	22	3,192	4,585	5,870	7,747
Loans & Advances	159	309	400	600	600
Current Liab. & Prov.	814	1,211	1,454	1,821	2,163
Creditors	458	737	822	1,073	1,309
Other Liabilities	163	231	382	498	604
Provisions	192	243	250	250	250
Net Current Assets	1,662	6,444	8,569	11,026	13,771
Application of Funds	4,554	9,457	11,925	14,580	17,599

E: MOST Estimates

RATIOS					
Y/E MARCH	2005	2006	2007E	2008E	2009E
Basic (Rs)					
EPS	29.5	48.3	33.6	39.5	47.2
Growth (%)	18.7	63.4	-30.4	17.6	19.6
Cash EPS	33.1	53.5	43.7	42.3	50.4
Book Value	108.5	143.6	134.8	168.6	209.0
DPS	5.0	7.4	4.0	5.0	6.0
Payout (incl. Div. Tax.) (%)	17.0	15.3	15.0	15.0	15.0
Valuation (x)					
P/E		9.5	13.6	11.6	9.7
Cash P/E		8.6	10.5	10.8	9.1
Price/Book Value		3.2	3.4	2.7	2.2
EV/Sales		1.6	1.7	1.6	1.2
EV/EBITDA		7.4	7.1	7.0	5.5
Dividend Yield (%)		1.6	0.9	1.1	1.3
Profitability Ratios (%)					
RoE	30.6	38.3	34.3	26.0	22.6
RoCE	30.5	30.2	33.4	32.2	29.1
Turnover ratios					
Debtors (Days)	46	53	55	55	55
Inventory (Days)	85	158	125	125	125
Creditor (Days)	29	36	35	35	35
Asset Turnover (x)	1.7	1.0	1.2	1.2	1.3
Leverage Ratio					
Debt/Equity (x)	0.5	1.3	0.2	0.2	0.2

CASH FLOW STATEMENT					
(RS MILLION)					
Y/E MARCH	2005	2006	2007E	2008E	2009E
PBT before EO Items	1,262	2,068	3,534	4,211	5,038
Add: Depreciation	105	146	171	203	225
Interest	38	48	33	51	82
Less: Direct Taxes Paid	414	673	1,184	1,411	1,688
(Inc)/Dec in WC	-154	-1,612	-731	-1,173	-868
CF from Operations	838	-22	1,823	1,882	2,789
(Inc)/Dec in FA	-607	-254	-500	-400	-500
(Pur)/Sale of Investments	64	-12	-15	0	0
CF from Investments	-543	-266	-515	-400	-500
Inc/(Dec) in Net Worth	-18	-172	3,309	-50	-60
Inc/(Dec) in debt	-187	3,846	-2,972	259	155
Inc/(Dec) in Defferd Tax Liab.	86	46	12	0	0
Less: Interest Paid	38	48	33	51	82
Dividend Paid	144	213	231	355	426
CF from fin. activity	-301	3,458	86	-197	-412
Inc/Dec in Cash	-6	3,170	1,393	1,285	1,877
Add: Beginning Balance	28	22	3,192	4,585	5,870
Closing Balance	22	3,192	4,585	5,870	7,747

Appendix I: why pipes?

Pipes are the cheapest and most eco-friendly mode to transport oil & gas/ LNG/ water to usage areas from their respective sourcing bases. The oil & gas segment is the largest user segment, driven globally by growing demand for energy.

OVERVIEW OF INDIAN PIPES AND TUBES INDUSTRY

TYPES OF PIPES	SIZE	MAJOR RAW MATERIAL	DOMESTIC PLAYERS	MAIN APPLICATION
Seamless	½"-14"	Billets	MSL, ISMT, BHEL, Remy Metals Gujarat, Jindal Saw	High Pressure Application Oil & Gas Drilling, Exploration, Boiler, Automobiles, Process, Pipelines, Refineries
Hsaw	18"-100"	HR Coils	Welspun Gujarat, MIL, PSL, Jindal Saw	High Pressure Application, Cross Country Line Pipes for Oil & Gas (onshore) and Water Transport
Lsaw	16"-50"	Steel Plates	Welspun Gujarat, MIL, Jindal Saw	High Pressure Application, Cross Country Line Pipes for Oil & Gas Transport (onshore/offshore)
ERW Pipes	½"-21"	Steel Sheets	MSL, Welspun Gujarat, Jindal Pipes, Surya Roshni	Low Pressure Application, Cross Country Line Pipes for Oil & Gas and Water Transport
DI/CI Pipes	3"-39"	Iron Ore + Coke to produce Pig Iron	Electrosteel Castings, Lanco Kalahasti, Kesoram Inds, Kapilansh Dhatu, Kalinga Tubes, Jindal Saw	Water and Sewage Transport

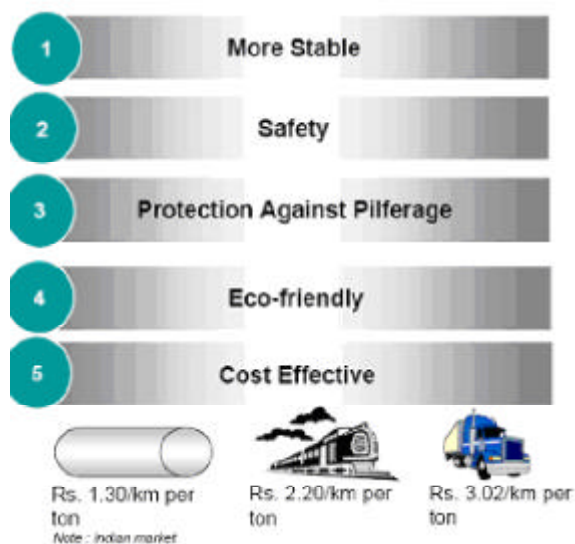
Source: Industry

Advantages of linepipes as mode of transport

Transportation cost for oil & gas using Lsaw/Hsaw (longitudinal/helical submerged arc welded pipes – 21" OD to 108" OD) would be Rs1.3/km/ton. In comparison, transportation cost by railway would be about Rs2.2/km/ton and by road, about Rs3km/ton. Similarly cost of transporting oil across continents via linepipes is around Rs0.4/liter/km compared with Rs2/liter/km via tankers.

The immense potential for cost saving is what makes setting up pipes meaningful. Moreover, once established, the pipeline network remains operational and in good condition for 25-30 years. This feature makes savings appear substantial over a period of time. Pipelines can withstand high pressure of up to about 3,600 pounds per square inch, are eco-friendly, offer safe passage and offer no chances of pilferage. Thus the Lsaw/Hsaw pipelines have come to be recognized as the most efficient and eco-friendly mode of transporting petroleum products (crude, petrol, and diesel), gas and water.

LINE PIPES: KEY ADVANTAGES OVER OTHER MODES



Source: Industry

Most preferred method of transportation outside India

Internationally, linepipes are the most preferred medium for transporting petroleum products over long distances. Developed countries transport nearly 60% of their petroleum products by pipes. France has a network of about 170,000km and the US about 329,600km. Some existing global transnational pipelines are: (1) North European Gas Line, which traverses a large part of the globe, from a remote area in Russia to developed markets of Germany and France; and the not so developed markets of Myanmar, India and Iran; (2) Trans Saharan pipeline in Africa; (3) the Connector Lines in America; and (4) North European Gas Pipeline, Eurasia.

India is underpiped but changing

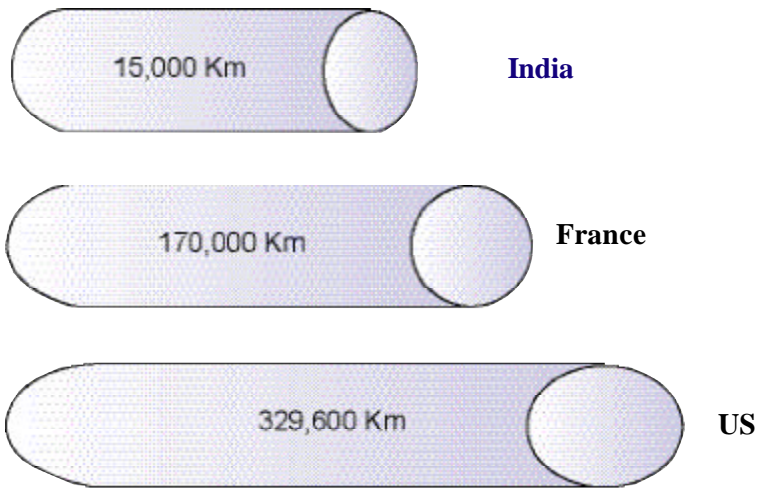
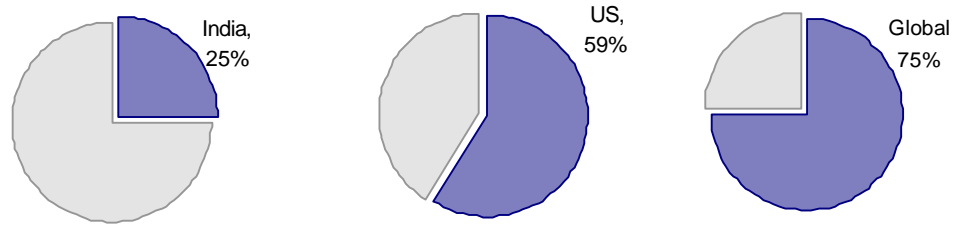
In sharp contrast, India lags global peers in terms of linepipe usage; merely 32% of its petroleum products are transported by pipes. India has a minuscule pipeline network of about 18,500 km for transporting crude oil, refined products and gas (mostly in the western and northern eastern regions).

INDIA: LINE PIPE NETWORK

Crude	8,000km
Refined products	6,000km
Gas	4,500km

The largest linepipe project in India is the HBJ pipeline. However, increasingly emphasis is being laid on linepipe usage for transportation of petroleum products and water, as they have come to be accepted as most cost-effective and eco-friendly.

PIPELINE PENETRATION IS LOW IN INDIA



Source: Cris-Infac

Appendix II: key international markets

USA and Canada – big markets for Indian pipes

The US has emerged as a big market for pipes for three reasons:

- (1) the need to replace existing pipeline network (40-50 years old), which has outlived its utility;
- (2) the increasing dependence on gas would indicate the setting up of a 200,000km gas pipeline network;
- (3) LNG terminals being set up in the southern coast.

US demand for pipes can be catered to by Indian, Japanese, European and US companies. Let us examine the export stand of the stated countries and how they stack up to meet substantial US demand:

- (1) Japanese companies attract a 15% anti-dumping duty when they export to the USA. This is in line with the internal trade agreements between the two countries.
- (2) Very few American companies exist today that can significantly satisfy domestic US demand (domestic American capacity is insignificant). Until now business opportunity for linepipes was low in the US, as the country already had in place an extensive linepipe network.
- (3) This scenario pitches Indian and European companies to compete for supply to US demand. We note European companies have historically enjoyed significant presence in US and continue to do so (freight is low at about US\$50/ton-US\$60/ton).
- (4) With Japanese presence reducing, the US opportunity appears attractive for Indian companies. Indian pipe companies have, in recent times, won several large orders from the US. Jindal Saw, Welspun Gujarat Stahl and Man Industries have won prestigious orders from USA testifying to not only their potential but also their ability to execute.

Jindal Saw bagged its single order aggregating US\$355m from Houston-based Gulf South Pipeline Company for supplying 42” Lsaw pipes spanning about 360miles/576km. In April last year it had won a US\$180m order from the same company. In fact, nearly 35% of its current order book is from the US.

Similarly **Welspun Gujarat** in January 2007, won a US\$235m order, part of which was from USA. It also won a US\$100m order from Exxon in November 2006 for supply of 42” pipes. The company has supplied pipes for the world’s deepest pipeline project in the Gulf of Mexico, USA. Recently, it won a single largest order ever by an Indian company amount to US\$459m (Rs18.35b) from Transcanada. **Man Industries** too had received US\$100m order last year from US-based oil companies.

EXISTING CAPACITIES IN NORTH AMERICA (EXCLUDING MEXICO)

NAME OF MILL	LOCATION	PIPE TYPE	OD (IN)	WT (IN)	GRADE	CAPACITY (NT)
Berg	Panama City, FL (US)	3 roll bending	24 - 64	0.312 – 1.5	Gr B – X-70	200,000
Oregon	Portland, Oregon (US)	Spiral	20 - 60	0.25 – 1.00	X-42 – X80	200,000
	Camrose, Canada	U-O-E	20 - 60	0.25 – 1.00	X-42 – X80	200,000
IPSCO	Regina, Canada	Spiral	26 – 56	0.25 – 0.75	Gr B – X 100	275,000
Dura-Bond	Steelton, Pennsylvania	U-O-E	20 – 42	0.281 – 0.750	Gr B – X 70	150,000

Source : Industry

NEW ANNOUNCEMENTS

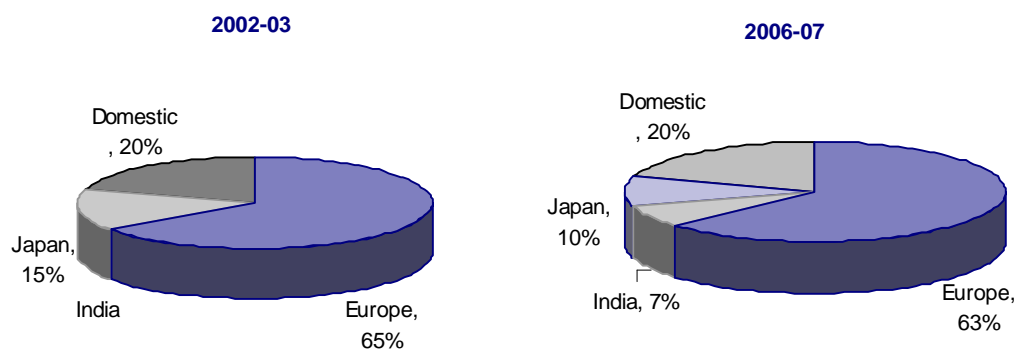
NAME OF MILL	LOCATION	PIPE TYPE	OD (IN)	TIME FRAME	CAPACITY (NT)
Berg	Mobil, Alabama (US)	Spiral	24 – 48	Second half 2008	180,000
IPSCO	Regina, Canada	Spiral. Expansion of existing facility. Addition of pipe forming, finishing equipment and coil prep line.	26 – 56	March 2008	125,000
Welspun / Lonestar	Southwest US	Spiral	---	March 2008	300,000
SeAH/Posco	---	Spiral	---	Mid 2008	250,000

Source: Industry

To take advantage of the potential demand from the US market, Indian companies like Welspun Gujarat, Man Industries and PSL have planned to set up facilities there. This will also help them to sidestep/obviate/preempt the threat from Japanese manufacturers, if in future 15% anti-dumping duty is done away with. Indian plants in US will also enjoy freight advantages in comparison with Japanese companies. Sea freight from Japan to the west coast of USA (e.g. Los Angeles) is about US\$160/ton; to gulf coast (e.g. Alabama, Mississippi, Houston etc) is about US\$200/ton and to the east coast (e.g. New York) is about US\$300/ton.

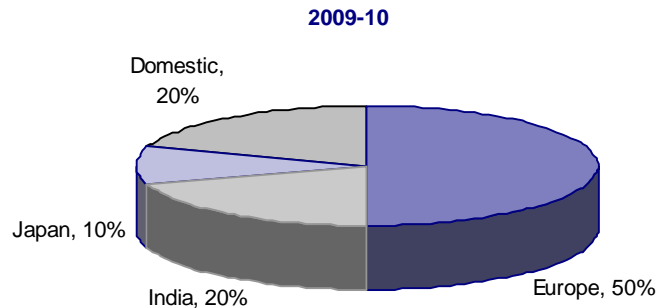
Canada too has emerged as big potential market for gas pipelines as it plans to put in place a gas pipeline network of about 100,000km in length. Its existing pipeline network spans a distance of about 100,000km.

MARKET SHARE OF DIFFERENT PIPE PRODUCING COUNTRIES IN USA



Source: Industry

EXPECTED MARKET SHARE OF DIFFERENT PIPE PRODUCING COUNTRIES IN USA

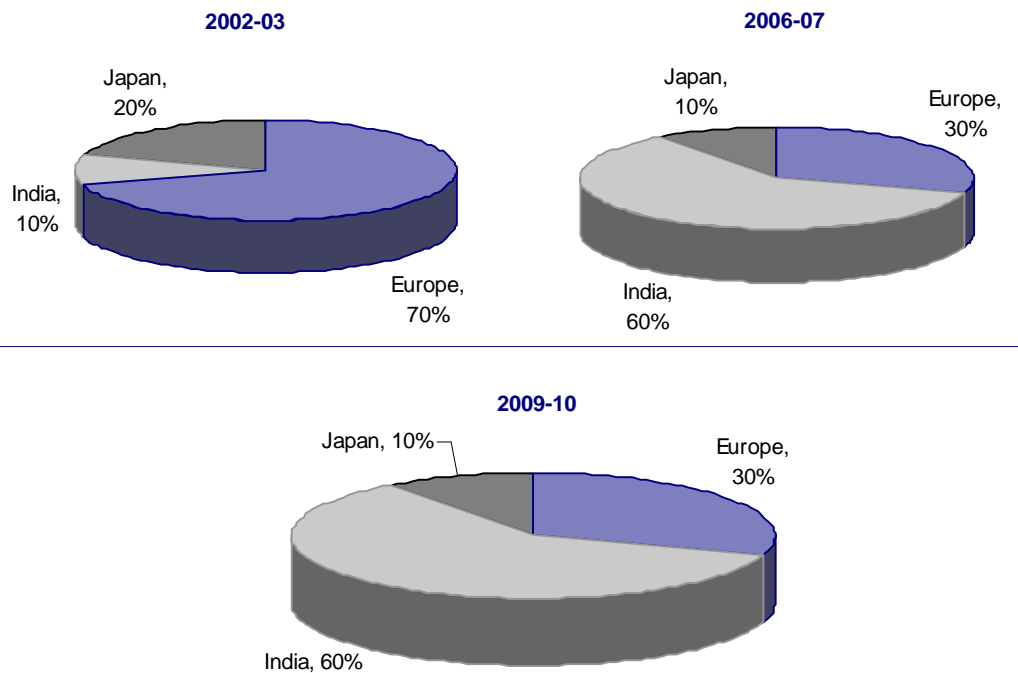


Source: Industry

Middle East – also a big market for India

The Middle East has rich reserves of oil & gas and is potentially one of the most important markets for Indian companies. Home to huge oil & gas reserves, the region is humming with oil/gas exploration & production activity as global as well as domestic demand for oil & gas is on the rise. Geographical proximity to the region has boosted Indian presence in the Gulf. Traditionally, European companies have dominated this oil hub due to their political influence and financial muscle (getting concessional credits from their financial institutions). However, in the last three years, Indian companies have increased their presence and snatched a fair bit of market share from European companies.

MARKET SHARE OF DIFFERENT PIPE PRODUCING COUNTRIES IN MIDDLE EAST



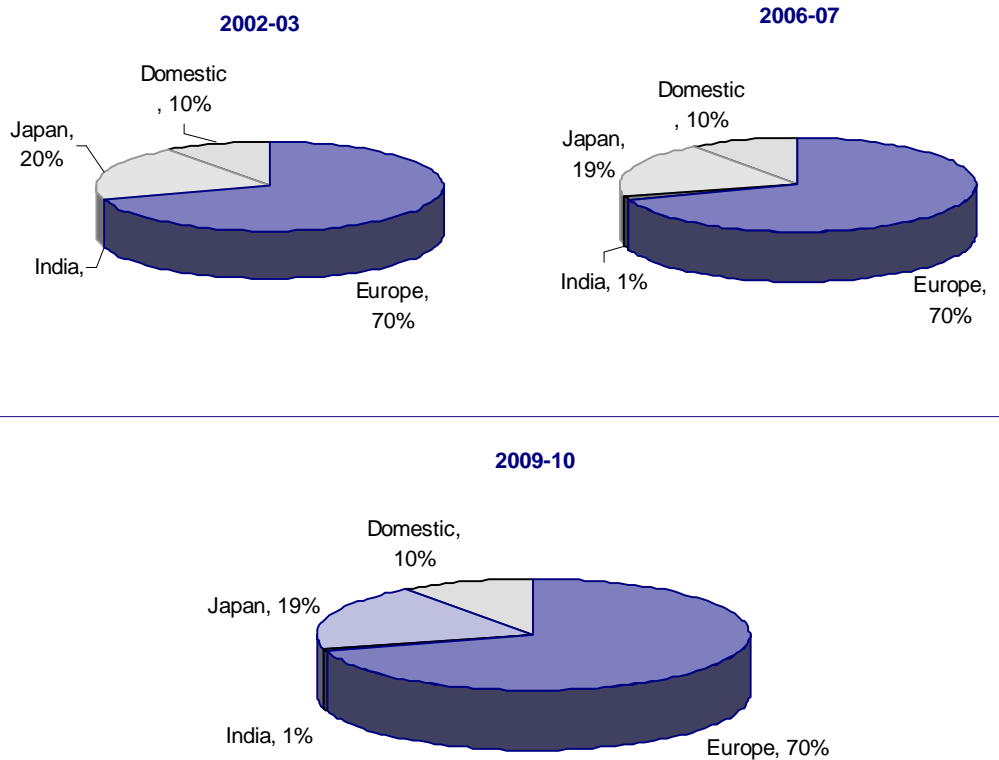
Source: Industry

Russia and Africa – potential big markets

Russia, principally an oil economy, has huge demand for pipes but Indian companies have been unable to make a dent in that region, language being a major barrier. Europeans have traditionally dominated this market and we believe this trend is likely to continue. Russian demand could reach 11.9m ton by 2010, up 50.4% from 2006, according to the Russian Economic Development and Trade Ministry’s projections for socio-economic development in Russia in 2008-10. Other main drivers for growth are: (1) increase in demand for pipes from domestic fuel, energy and construction sectors; (2) substitution of imports by domestic capacities; (3) raising quality of domestic production; and (4) expansion of exports to the CIS and other countries. Introduction of new domestic capacities for the production of large diameter pipes should reduce imports of these pipes into Russia from 1.4m ton in 2007 to 0.7m ton in 2010.

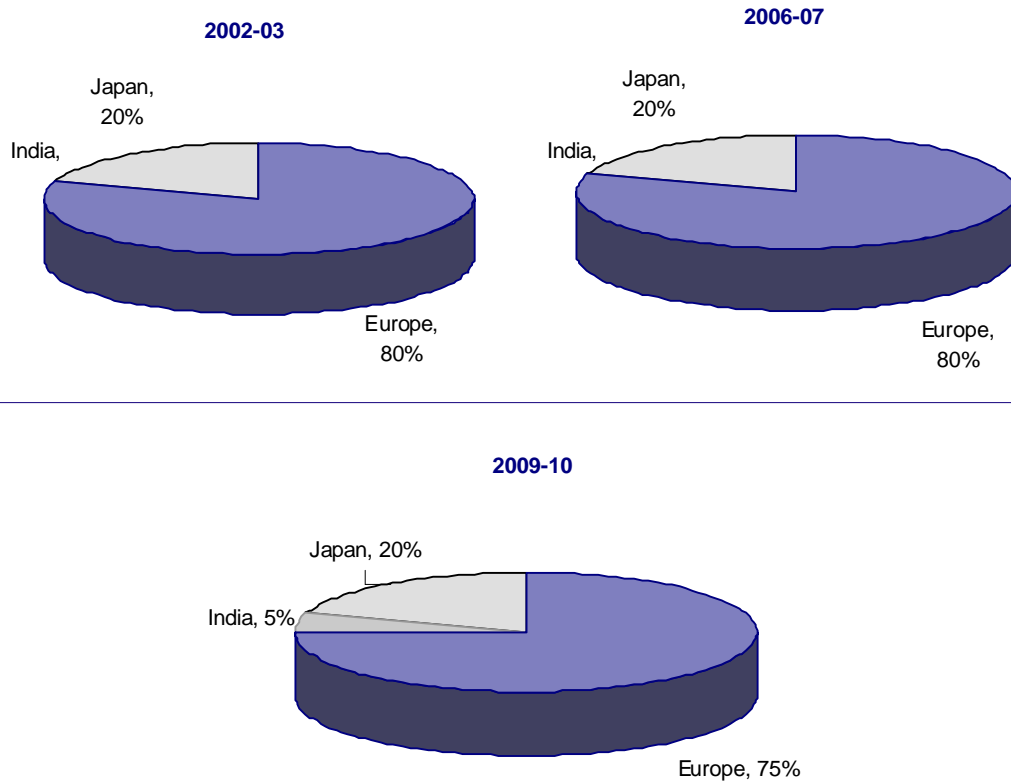
Parts of Africa such as Nigeria, historically dominated by European companies, also offers good potential. Economically backward countries such as Nigeria need back-up credit, which European companies are able to provide. Recently, some orders have come to Indian companies and there is a good chance of them gaining further ground in the future.

MARKET SHARE OF DIFFERENT PIPE PRODUCING COUNTRIES IN RUSSIA



Source: Industry

 MARKET SHARE OF DIFFERENT PIPE PRODUCING COUNTRIES IN AFRICA



Source: Industry

Asia – holds promise

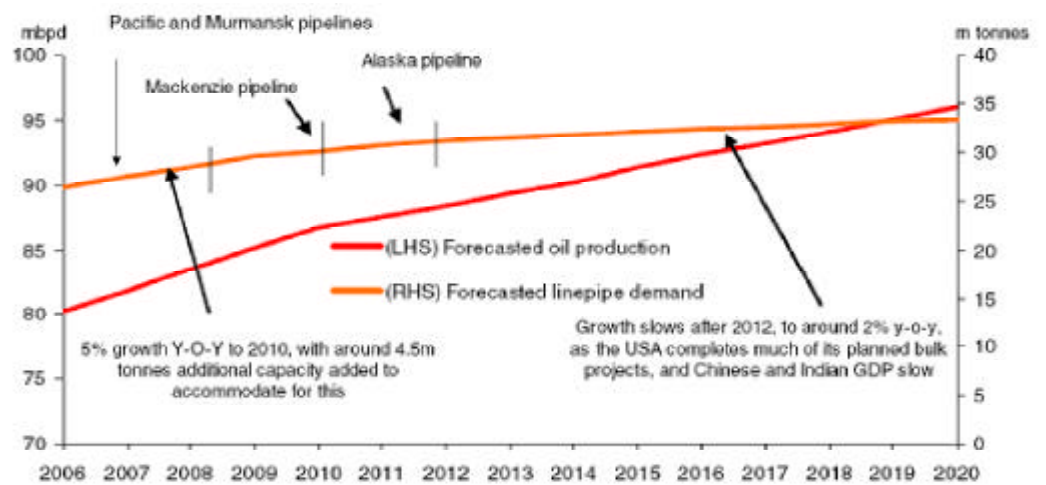
Besides India countries like China, Sri Lanka, Thailand, Malaysia, Indonesia and Bangladesh too are likely to come up with sizeable pipeline infrastructure. While exact demand in China is not known industry sources aver that it is huge and give an example of just one project – East West pipeline spanning a distance of 4,800km with the possible consumption of 10 million tonnes of pipes.

Transnational gas pipelines

Transnational pipelines are an integral part of international gas business. With its energy needs rising India will have to explore such options. India is flanked by large gas supply sources such as Central Asia, West Asia including Iran and Myanmar and Bangladesh on the eastern side. At present India has three specific transnational pipeline projects (a) Myanmar-Bangladesh-India pipeline (b) Iran-Pakistan-India pipeline and (c) Turkmenistan-Afghanistan-Pakistan-India pipeline.

Transnational gas pipeline projects are complicated requiring resolution of geopolitical as well as security of supply issues; hence the timing of such projects is uncertain. However once they materialize, the projects would offer significant business opportunities. With oil production expected to continue to increase to 2020, demand for linepipe should stay strong.

WITH OIL PRODUCTION EXPECTED TO CONTINUE INCREASING, DEMAND FOR LINEPIPES SHOULD STAY STRONG



Source: IEA/MBR

Appendix III: spiral (Hsaw) pipes – today's favorites

Spiral pipes have emerged the favorites over the longitudinal variety, particularly for onshore oil & gas pipelines due to three main reasons: (1) cost difference; (2) gaining global acceptance as an alternate to longitudinal pipes as a mode of transport; and (3) easy availability of wide width coils of diameter beyond 48", which facilitates making of pipes with OD up to 108"; longitudinal pipes cannot be made beyond 48" OD is because wide width HR plates are not available.

(1) Why are spiral pipes cheaper? This is largely because HR coils, the basic input used to make spiral pipes, is cheaper by about 20% in comparison to HR plate, the input required to make longitudinal pipes (X-70 variety of plate, which is used to make longitudinal pipe costs about US\$1,100/ton versus HR coil, which will cost about US\$800/ton). This makes the end product also cheaper by around 10%.

(2) Spiral pipes have gained global acceptance as the best alternative to longitudinal pipes for transport for oil & gas. Though spiral pipes have been in use since 1970, they were considered inferior to longitudinal variety in terms of seam/weld strength and therefore not considered tough enough for usage with high pressure critical inputs like oil & gas. The US pipeline network has had no significant contribution of the spiral variety and in India also until GAIL used spiral pipes for its DUPL pipeline network in FY05, spiral was strictly avoided for oil & gas transportation, being considered fit only for transportation of water (used for the first time in 1998 in Mangalore-Bangalore 24" pipeline 30km in length and 6.4mm wall thickness).

However, improved weld technology and other processes have increased the strength of spiral significantly, making it fit enough for being used as a mode of transport for critical, high pressure inputs like oil & gas. In many countries such as China, Canada, Germany, Turkey and South East Asian countries these pipes are being used for thousands of kilometers of high pressure gas transmission pipelines of diameters up to 56" and grade X80.

(3) Availability of coils is significantly better versus plates. Hence a higher number of spiral mills have come up recently. While wide width (beyond 48") plates are not available, which limits manufacture of longitudinal pipes beyond 56" OD, easy availability of wide width coils facilitates making of pipes right up to 108" OD. On the other hand, coils with wall thickness beyond 25mm are unavailable, hence spiral pipes for offshore applications cannot be made.

Hsaw or spiral pipes are a recent phenomenon. Concerned by sharp rise in energy consumption in the early seventies a breakaway group of engineers from US Steel under the aegis of New Port Steel began making flat steel (plates) in coil format (HR coils) for the first time in the world, as they discovered energy saving to the extent of 20%.



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1. Analyst ownership of the stock	No	No	No
2. Group/Directors ownership of the stock	No	No	No
3. Broking relationship with company covered	No	No	No
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