Company In-Depth

7 December 2006 | 20 pages

Sasken Communication Technologies (SKCT.BO)

Initiate at Buy: Turnaround of Products Business Not Factored In

- Target price implies around 40% upside — Strong presence in offshore R&D services and a turnaround in the products business in FY08E should ensure strong earnings momentum for Sasken in FY06-09E.
- Services business on a strong footing — Growth in the services business is being driven by higher acceptance of offshoring in R&D services. The services business has marquee clients such as Nortel and Nokia. We expect the business to register revenue and EBITDA CAGRs of 42% and 36% over FY06-FY09. The Botnia acquisition has added further momentum to growth.
- Products business should turn around in FY08E — Sasken has been making significant investment in creating software for mobile phones. We forecast a 52% revenue CAGR over FY06-09 and a turnaround in FY08 for this business, with shipments expected to start over the next few months.
- Products business value not factored in — The loss-making products business has been a drag on overall profits, hence the stock looks expensive on P/E. We value the products business on a P/S basis and the services business on EV/EBITDA. Our sum-of-the-parts target price is Rs653.
- Risks — Aside from sector risks, the products business has a high risk profile on the technology front and is exposed to delays in handset shipments.

Buy/Medium Risk	1M
Price (06 Dec 06)	Rs466.95
Target price	Rs653.00
Expected share price return	39.8%
Expected dividend yield	0.6%
Expected total return	**40.5%**
Market Cap	Rs13,136M
	US$296M

Price Performance (RIC: SKCT.BO, BB: SACT IN)

See page 18 for Analyst Certification and important disclosures.

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2005A	228	13.53	na	34.5	5.4	na	0.7
2006A	229	8.09	-40.2	57.7	3.4	8.7	0.6
2007E	523	18.28	126.0	25.5	3.1	12.9	0.6
2008E	918	31.76	73.8	14.7	2.6	19.7	1.1
2009E	1,268	43.41	36.7	10.8	2.2	23.1	2.1

Source: Powered by dataCentral

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Fiscal year end 31-Mar	2005	2006	2007E	2008E	2009E
Valuation Ratios					
P/E adjusted (x)	34.5	57.7	25.5	14.7	10.8
EV/EBITDA adjusted (x)	na	25.6	15.0	10.3	7.6
P/BV (x)	5.4	3.4	3.1	2.6	2.2
Dividend yield (%)	0.7	0.6	0.6	1.1	2.1
Per Share Data (Rs)					
EPS adjusted	13.53	8.09	18.28	31.76	43.41
EPS reported	13.53	8.09	18.28	31.76	43.41
BVPS	86.89	138.10	151.93	176.91	207.70
DPS	3.09	3.01	3.00	5.00	10.00
Profit & Loss (RsM)					
Net sales	2,418	3,081	5,085	7,019	8,958
Operating expenses	-2,204	-2,779	-4,467	-5,924	-7,449
EBIT	**213**	**303**	**618**	**1,094**	**1,510**
Net interest expense	0	0	0	0	0
Non-operating/exceptionals	32	63	13	-1	-22
Pre-tax profit	**245**	**365**	**631**	**1,094**	**1,488**
Tax	-17	-69	-108	-176	-221
Extraord./Min.Int./Pref.div.	0	-68	0	0	0
Reported net income	**228**	**229**	**523**	**918**	**1,268**
Adjusted earnings	228	229	523	918	1,268
Adjusted EBITDA	355	472	820	1,297	1,713
Growth Rates (%)					
Sales	na	27.4	65.0	38.0	27.6
EBIT adjusted	na	42.0	104.1	77.1	38.0
EBITDA adjusted	na	33.0	73.7	58.1	32.0
EPS adjusted	na	-40.2	126.0	73.8	36.7
Cash Flow (RsM)					
Operating cash flow	**218**	**149**	**418**	**931**	**1,275**
Depreciation/amortization	142	170	203	203	203
Net working capital	-152	-250	-308	-190	-195
Investing cash flow	**-227**	**-454**	**-2,721**	**-674**	**-786**
Capital expenditure	-227	-454	-2,720	-674	-786
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	**64**	**2,199**	**928**	**-372**	**-540**
Borrowings	10	-3	1,023	-207	-207
Dividends paid	-58	-96	-98	-165	-333
Change in cash	**55**	**1,893**	**-1,376**	**-115**	**-51**
Balance Sheet (RsM)					
Total assets	**1,772**	**4,243**	**6,010**	**6,817**	**7,801**
Cash & cash equivalent	113	2,015	685	765	978
Accounts receivable	541	653	1,184	1,635	2,086
Net fixed assets	877	1,011	3,228	3,554	3,940
Total liabilities	**353**	**392**	**1,732**	**1,786**	**1,835**
Accounts payable	0	0	0	0	0
Total Debt	15	12	1,035	828	621
Shareholders' funds	**1,419**	**3,850**	**4,278**	**5,031**	**5,966**
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	14.7	15.3	16.1	18.5	19.1
ROE adjusted	na	8.7	12.9	19.7	23.1
ROIC adjusted	na	14.8	15.7	18.9	24.1
Net debt to equity	-6.9	-52.0	8.2	1.2	-6.0
Total debt to capital	1.0	0.3	19.5	14.1	9.4

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Strong services portfolio; product turnaround in FY08E

Sasken is a dominant player in offshore R&D services with blue-chip clients such as Nortel and Nokia. We expect increasing offshoring in R&D services to drive 42% growth in Services over FY06-09. After investing in Products, the business will grow 50% over FY06-09 and have an EBITDA margin of 30%-plus in FY09, on our estimates. We believe the market is still not factoring in the operating leverage that such a hybrid business model carries. Sasken remains one of few companies where we expect a margin improvement in coming years. Expecting the company to report a 66% EBITDA CAGR over FY06-09, we initiate with a Buy/Medium Risk (1M) rating. Our SOTP-based target price is Rs653.

Services business: On a strong footing

Offshoring driving growth in R&D services

Strong demand for offshore R&D services

Strong demand for offshore R&D services is expected to continue to drive the prospects for players such as Sasken. Based on Nasscom data, R&D services sourced from India grew from US$1.7bn in FY04 to US$2.2bn in FY05 and are expected to reach US$2.8bn in FY06 (implying growth of 28% over the period). Sasken is a dominant player in the outsourcing R&D services space.

Unlike most Indian IT companies, Sasken derives its work out of the R&D budgets of technology and telecoms companies. While R&D budgets remain more or less stable, increasing offshorization of R&D spend is driving good growth in this segment.

In the network equipment manufacturers segment, costs are under focus as companies need to continue servicing the existing base of 2G subscribers even as they start rolling out 3G services. Competition in Asia is also increasing — which will result in pricing pressure and hence more outsourcing and offshoring. In the terminal devices market, growth in lower-cost phones (driven by China and India demand) is resulting in greater focus on costs among manufactures — resulting in more offshore spend. With more new models being launched, software integration and testing is a key challenge. Indian R&D services providers are benefiting from this trend.

Bright prospects

The potential remains huge, in our view. The chart below indicates the R&D budgets of a few major telecoms OEMs. R&D spend of the six companies put together is US$24bn, highlighting the size of potential opportunities.

Figure 1. R&D Spend of Telecom Majors

Company	Revenue, US$ bn (FY05)	R&D spend, US$ bn (FY05)	R&D spend as % of sales
Siemens	91.9	6.3	6.8%
Motorola	36.8	3.7	10.0%
Nokia	32.0	4.6	14.2%
Alcatel+Lucent	25.0	2.9	11.6%
Cisco	24.8	3.3	13.4%
Ericsson	19.9	3.2	16.1%

Source: Citigroup Investment Research

Sasken has marquee clients

Sasken has a list of marquee customers: four top-tier Network Equipment Manufacturers (NEMs), six tier-one semiconductor vendors, two tier-one telecoms services providers and six tier-one terminal device vendors. Clients include names such as Nortel, Nokia, Lucent and Texas Instruments.

Wide range of services

Sasken offers product-development services to tier-one network equipment manufactures (NEMs) such as Nokia and Nortel

Sasken offers a wide range of services. It offers product-development services to tier-one NEMs such as Nokia and Nortel, as well as chip design, architecture, verification and silicon platform support services to semiconductor vendors. For handset vendors, Sasken is into component development, integration and validation services. Around 45-50% of Sasken's services revenues are from NEMs and 25-30% from semiconductor players.

NES is a new growth area

Network Engineering Services (NES), a relatively new area for Sasken, has grown strongly over the past few quarters. The NES business began in 3Q FY05, when Sasken acquired the NES-related assets of Blue Broadband Technologies. The segment has ramped up well to 7.5% of services revenues. With rapid rollouts of telecom networks in India, the growth outlook remains robust.

iSoft and Botnia acquisitions add to positives

In April 2006, Sasken acquired iSoft for US$1.45m. iSoft had 110 employees and generated revenues of US$2.2m in FY05. iSoft added to Sasken's strengths in data networking, VOIP and wireless segments. In July 2006, Sasken acquired Botnia, a Finnish wireless services company, for US$45m. Botnia had 230 people (now 272 people) and generated revenues and profits of US$22m and US$3.7m for FY06. The deal valued Botnia at 12.2x trailing earnings and is EPS accretive. Botnia also added significantly to Sasken's customer profile with 11 tier-one customers in Europe, including Alcatel, Nokia, Ericsson and Siemens.

Billing rates lower than those of peers; inching up

2.8% improvement in offshore rates in 2Q FY07

Despite doing higher value added work, Sasken's billing rates have been lower than those of larger peers, which we believe is primarily due to client concentration (clients have more bargaining power) and partly due to the difficult times the company (and its clients) went through in 2001-02. However, billing rates have been seeing a good rebound with an improvement of 2.8% in offshore rates in 2Q FY07. Management has talked of a low single-digit improvement in pricing going forward.

Products business: Expect ramp-up

Application Solutions (for Smartphones)

Multimedia applications ("S-Series") are targeted at high-end smartphones

Multimedia applications ("S-Series") are targeted at high-end smartphones, priced at US$600-800 apiece. Sasken's strength in this area is in software accelerators; earlier multimedia operations were enhanced using hardware accelerators, which consumed more power and reduced battery life. Sasken has had some good wins in this space and expects partners to launch more handsets in the Japanese market (NEC, Panasonic) in early 2007 and in Europe in April 2007. NEC has already launched NEC N902i using Sasken's applications. Competition in this space comes mainly from Packet Video.

Integrated solutions

In Integrated solutions ("E-Series"), Sasken has proven solutions on two semiconductor platforms and three handset customers (Tier II) are testing the product. Sasken expects a commercial launch in mid-CY07. However, this will depend on how soon the commercial discussions close. Integrated applications fetch the highest realizations within the Sasken' suite of products. Major competition used to come from TTPCom, which is now a Motorola company (and hence the chances of competing in other major accounts are very low).

Wireless modem solutions

This includes protocol stacks for GSM/GPRS/EDGE- and WCDMA-based phones. In this segment ("M-Series"), Sasken is working closely with two of the largest chipset companies (Philips, Analog Devices). Product pricing is very competitive in this area; Sasken uses this is as an entry point into new accounts. In this area, the key competitor was Azar from TTPCom (acquired by Motorola). With the two large chipset companies, Sasken is exclusive for 3G handsets.

Change in business model in FY06 — license to royalty

In FY06, Sasken changed its business model and started focusing on royalty revenues (instead of the earlier model based on license revenues). In the past, the company licensed products to a leading Taiwanese semiconductor vendor — which was a big success. Sasken could not benefit from it as it had a licensing agreement with the customer. Because of the change in model, product revenue has been deferred. We expect significant product revenues to start accruing from FY08 onward.

Pricing to decline gradually

We do not expect a sharp erosion in ASPs as Sasken innovates to add more features to products

Management expects average pricing to be ~US$1 per handset. For our calculations, we have used 70 cents per handset, taking a slightly more conservative view. We believe that Sasken (and the industry) will need to continuously add features as existing products tend to get commoditized easily. We do not expect a sharp erosion in ASPs as Sasken innovates to add more features to products (we have factored in a 15% decline in pricing in FY09).

Ramp-up in FY08E

With a large number of handset shipments (which include Sasken's software) expected to be shipped in FY08, royalty revenues should ramp up from FY08E onward. In the "S-series", we expect phone launches in Japan in late CY06 and in Europe in mid-2007. In the "M-Series", phone launches are expected in early

2007. The "E-Series" phones are expected toward mid-CY07; however, there is still some uncertainty regarding the deadline.

Products: Progress so far

Sasken's products business has seen steady progress so far, as highlighted below. There have been some delays; but considering the profile of the business, this is normal.

Figure 2. Product Progress Monitor

Milestones	2.5G E-Series	2.5G M-Series	3G M-Series	3G S-Series
Identify Lead semiconductor partner	Q1FY06	Q1FY05	Q4FY04	Q4FY03
Product demo on lead chipset	Q4FY06	Q3FY06	Q3FY06	Q3FY05
First design in	*	Q4FY06	Q4FY06	Q3FY05
First design win	*	*	*	Q3FY06
No of platform Design ins as of date	None	3 to 4	2	3 to 4
No of platform Design wins as of date	None	None	None	2

Source: Company Reports

The key steps are:

- Identifying a lead semiconductor player as a partner for the product.
- Demonstrate the product on the lead semiconductor partner’s chip set to phone customers, and if they are interested, they sign up. This is called the "design in" stage.
- Design on the customer phone is done over the next few quarters.
- When the phone carrying the product is shipped, it is the "design win" stage.

Design-in supports our view that payback time is close

Sasken has 10 platform design-ins

Sasken has 10 platform design-ins — 4 in 2.5G M-Series, 2 in 3G M-Series and 4 in 3G Series. With 2 design wins already in 3G S-Series and visibility over other design-ins being converted to design wins over the next few quarters, it indicates that ramp-up should happen in FY08.

TTPCom acquisition by Motorola — positive for Sasken

Motorola’s acquisition of TTPCom, Sasken's key competitor, is a positive for Sasken, in our view. Although it impacts the possibility of getting business from Motorola, it opens the door to a lot of other customers that may not be keen to buy from a competitor.

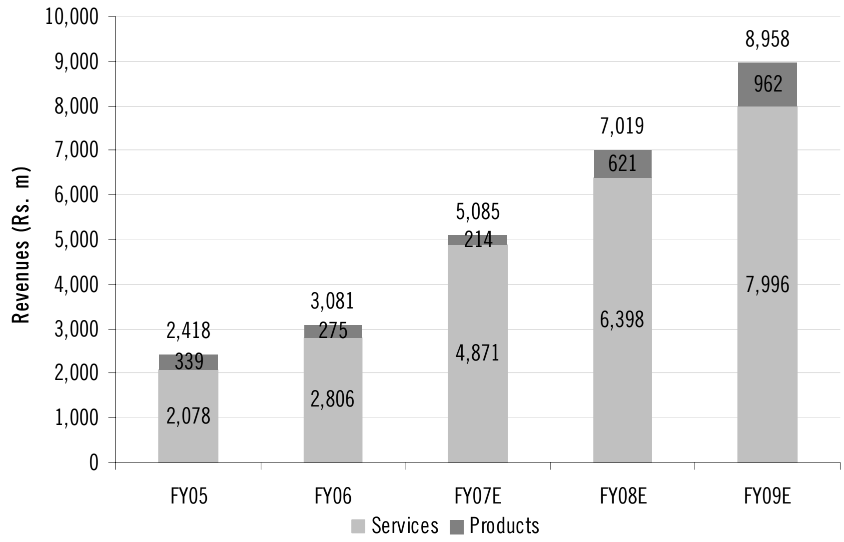
Motorola acquired TTPCom earlier this year for £103m (~US$190m). TTPCom generated revenues of £37m (36% decline in revenues yoy) and a net loss of £32m in CY05. The deal value of 2.8x sales clearly highlights the price that Motorola was ready to pay for the technology assets of TTPCom.

Financials

Revenue growth of 43% CAGR over FY06-09E

We expect a revenue CAGR of 43% in FY06-09. Although product revenues will grow at a 52% CAGR over the same period on a small base, services revenues will continue to be a large proportion of the revenues (11% in FY09 as against 4% in FY07), based on our estimates.

Figure 3. Strong Revenue Growth over FY06-09E



Source: Company Reports and Citigroup Investment Research estimates

Products business turnaround to generate operating leverage

We expect strong operating leverage in the products business as revenues grow much faster than costs

In the products business, we expect a sharp ramp-up from FY08 onward as more and more handsets with Sasken's products are launched. Our assumptions are in the table below. With cost increases being very linear (a ~15-20% yoy increase), we expect strong operating leverage in the products business as revenues grow much faster than costs.

EBITDA margins to expand 640bps over FY06-09E

We expect EBITDA margins to expand 640bps over FY06-09 as the products business turns around and reaches 30%-plus EBITDA margin in FY09. While we expect services business margins to decline 300bps over the same period, the sharp turnaround in the product business would result in leverage for the overall business.

Figure 4. Performance Over FY06-FY09E by Segment

(Rs. M)	FY05	FY06	FY07E	FY08E	FY09E
Revenues					
Services	2,078	2,806	4,871	6,398	7,996
Products	339	275	214	621	962
Total	2,418	3,081	5,085	7,019	8,958
EBITDA					
Services	417	656	1,118	1,387	1,633
Products	-62	-174	-255	105	343
Total	355	482	863	1,492	1,976
EBITDA margin					
Services	20%	23%	23%	22%	20%
Products	-18%	-63%	-119%	17%	36%
Total	15%	16%	17%	21%	22%

Source: Company Reports and Citigroup Investment Research estimates

Accounting treatment of product-development costs

Costs in the R&D phase are charged off

Sasken has a reasonably conservative policy on product-development costs. Costs in the R&D phase are charged off. New product development costs (once product feasibility is established) are capitalized until the product release and amortized over 1-3 years depending on the life of the product. At end-2Q FY07, ~5.4% of the balance sheet (Rs271m) was capitalized software product costs. This could go up as the "E-Series" product has yet to be released commercially. We have factored in Rs 60m of costs for the next two quarters. We expect it to be capitalized over the next three years.

Tax rates: Expect a decline

Sasken's tax rate is high at 21% of PBT and 2.2% of revenues (FY06). The tax rate for services EBIT is expected to go up due to higher NES growth rates (which are mostly domestic) and work being routed through the Indian arms of multinationals. However, as product profitability increases, product withholding tax rates (as % of EBIT) would keep coming down. Overall, we expect tax rates to go up marginally in terms of proportion of revenues (from 2.2% in FY06 to 2.5% in FY09) but fall in terms of proportion of PBT (from 18.8% in FY06 to 14.8% in FY09) on account of improvement in profitability.

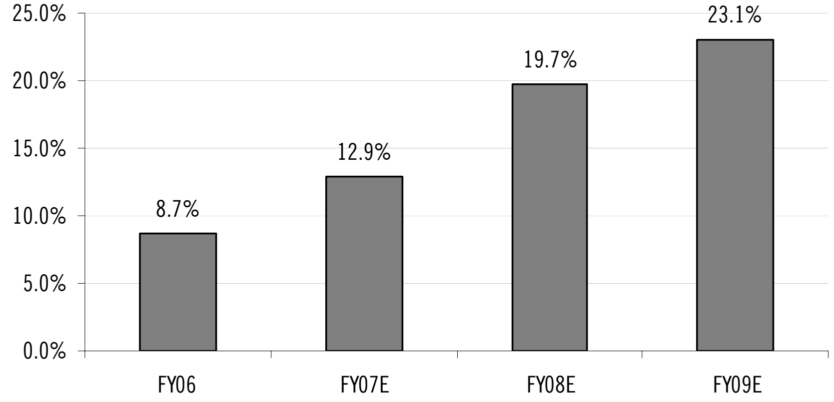
Products have 10-15% of revenues as withholding tax in foreign countries — which will go up as royalty and licensing revenues rise. We have modeled in ~13-14% withholding tax for license and royalty revenues as Sasken. In some cases, Sasken would be able to pass it on to customers.

Sharp improvement in return ratios

We expect ROE to improve sharply from 9% in FY06 to 23% in FY09

The loss-making products business (which continues to attract significant investments) is dragging down overall return ratios. We expect ROE to improve sharply from 9% in FY06 to 23% in FY09 as the product business turns around and generates a 30%-plus EBITDA margin in FY09.

Figure 5. Sharp Improvement in ROE over FY06-FY09E



Source: Company Reports and Citigroup Investment Research estimates

Equity dilution possible

Sasken's board has approved raising of funds of up to US$50m through equity or equity-linked issuance

In May 2006, Sasken's board approved raising of funds of up to US$50m through equity or equity-linked issuance. This funds would be used for inorganic growth or general corporate purposes. Sasken has around Rs1,030m of debt on its books — mostly euro-denominated and taken to fund the Botnia acquisition. As of 2Q FY07, Sasken had Rs700m of cash on its books.

Sasken may go in for a big campus (capex of US$50m-plus) after there is more clarity on Special Export Zones (SEZs) and it decides to go for a SEZ campus. We have not factored in this capex; we have assumed incremental expansion in leased facilities (with capex of US$7,000 per incremental employee).

Based on our numbers, we believe that Sasken should be able to fund a large part of the campus with internal accruals and could raise some debt. The proposed equity dilution (FCCB or QIP) could fund inorganic growth, which will bring in incremental revenues and profits. Our numbers do not factor in any equity dilution.

Valuation

P/E not appropriate

Sasken's products business is loss-making and drags down overall profitability. The services business has a healthy EBITDA margin of 23%. A P/E approach would not factor in the value of the products business. Motorola's acquisition of TTPCom at 2.8x sales (for a loss-making company) highlights the value that handset makers ascribe to the technology assets of companies such as Sasken.

SOTP valuation suggests target price of Rs653

Our sum-of-the-parts valuation indicates a target price of Rs653.

- Products business at 3x EV/Sales — the multiple (~3x) that Motorola paid for Sasken's former rival, TTPCom. We expect the products business to enjoy high margins (30%-plus), and valuations should trend higher than the 3x EV/Sales that we are assuming, which is supported by the current valuation average of 4.7x FY08E EV/Sales for Indian IT product companies (based on I/B/E/S and our estimates). However, considering the uncertainty associated with the products business, we believe a valuation of 3x EV/Sales is fair.
- We do not assume any dilution. We have assumed growth in leased facilities (US$7,000 capex per incremental manpower). If Sasken goes in for a large campus, it should be able to fund it largely from internal accruals (as it would be a 2-year project). Sasken could dilute equity to fund inorganic growth.
- We have valued Sasken's services business at 12x FY08E EV/EBITDA — supported by the valuation of comparable mid-tier companies, which trade at 12.5x FY08 EV/EBITDA based on I/B/E/S. It is at a discount of 20% to Satyam's valuation of 15x FY08E EV/EBITDA, which we believe is fair considering Satyam's size and diversified revenue profile. We use Satyam as a comparable because it is a commonly used benchmark for IT services companies not in the top-three.

Figure 6. Sum-of-Parts Valuation

Services EBITDA (FY08E)	Rs m	1,387
EV/EBITDA multiple services	(x)	12.0
EV of services	Rs m	16,650
Products sales (FY08E)	Rs m	621
EV/sales multiple for Products	(x)	3.0
EV of products	Rs m	1,862
Value of service per share	Rs	576
Value of products per share	Rs	64
Cash per share (end of FY08)	Rs	12
Sasken's price per share	**Rs**	**653**

Source: Citigroup Investment Research estimates

Figure 7. Multiples of Comparable Mid-tier IT Services Companies

		Price	Year end	Sales (Rs m)		EBITDA (Rs m)		EPS (Rs)		EV/Sales (x)		EV/EBITDA (x)		P/E (x)	
		Rs.		FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E
Mphasis BFL	MPHL IN	266	Mar	12,001	15,341	2,059	2,891	8.20	12.12	3.6	2.8	20.8	14.8	32.4	21.9
Hexaware*	HEXW IN	190	Dec	8,401	10,945	1,395	1,862	9.37	11.74	2.8	2.1	16.6	12.5	20.3	16.2
Infotech Ent.	INFTC IN	321	Mar	5,335	7,158	1,092	1,430	17.43	22.10	2.7	2.0	13.3	10.2	18.4	14.5
KPIT Cummins	KPIT IN	600	Mar	4,681	6,126	741	947	33.63	43.80	2.6	2.0	16.2	12.7	17.8	13.7
Average										**2.9**	**2.2**	**16.7**	**12.5**	**22.2**	**16.6**

*For Dec-end companies, FY07 refers to CY06 and FY08 refers to CY07

Source: I/B/E/S estimates

Figure 8. Multiples of Comparable Companies in Products Business

		Price	Year	Sales (Rs m)		EBITDA (Rs m)		EPS (Rs)		EV/Sales		EV/EBITDA		P/E	
		Rs.	end	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E	FY07E	FY08E
Subex Azure	SUBX IN	636	Mar	2,969	5,040	849	1,895	19.18	42.46	7.5	4.4	26.1	11.7	33.1	15.0
Geodesic Info	BVH IN	204	Mar	1,736	2,756	929	1,493	12.00	18.50	7.5	4.7	14.0	8.7	17.0	11.0
I-flex*	IFLEX IN	1768	Mar	20,311	25,637	4,145	6,011	40.02	53.89	6.5	5.1	31.7	21.9	44.2	32.8
Average										**7.1**	**4.7**	**23.9**	**14.1**	**31.4**	**19.6**

Source: I/B/E/S estimates
*Citigroup Investment Research estimates

Figure 9. Indian IT Services — Valuation Comparison Table

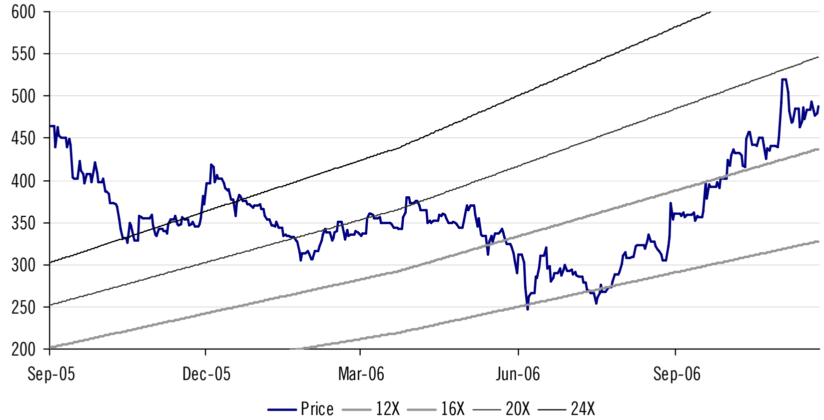
	Ticker	Rating	Price	Market Cap	Sales-FY07	EPS (Rs)			P/E (x)			FY06-09E CAGR		
(Rs M)			(Rs)	(US$ M)	(US$ M)	FY07E	FY08E	FY09E	FY07E	FY08E	FY09E	Sales	EBITDA	EPS
Infosys	INFY.BO	1L	2,245	28,080	3,120	66.4	83.7	103.4	33.8	26.8	21.7	34.4%	32.1%	33.1%
TCS	TCS.BO	1L	1,196	26,337	4,091	40.9	49.9	61.1	29.2	24.0	19.6	29.5%	25.6%	27.2%
Wipro	WIPR.BO	1L	590	19,092	3,198	19.6	24.1	29.5	30.1	24.5	20.0	29.2%	29.0%	28.0%
Satyam	SATY.BO	1M	463	6,847	1,462	20.5	24.3	28.9	22.6	19.1	16.1	31.8%	25.0%	24.1%
HCL Tech	HCLT.BO	1M	639	4,669	1,312	30.9	35.8	42.9	20.7	17.9	14.9	26.1%	24.4%	23.4%
Patni	PTNI.BO	3M	400	1,258	585	18.3	28.9	33.0	21.9	13.8	12.1	22.3%	19.5%	16.2%
I-Flex	IFLX.BO	3M	1,745	3,185	424	39.4	51.3	68.1	44.3	34.0	25.6	27.5%	36.1%	34.1%

Source: Citigroup Investment Research estimates

Our SOTP valuation implies a P/E of ~21x FY08E earnings, which we believe is fair considering Sasken's:

- Better than industry growth of 43% over FY06-09E;
- Strong operating leverage with margins improving 640bps over FY06-09E; and
- Sharp improvement in return ratios (ROE to expand from 9% in FY06 to 24% in FY09E).

Figure 10. 1-year Forward P/E Band Chart



Source: Company Reports and Citigroup Investment Research and DataStream

Stock could consolidate near-term

Sasken as a stock has done well over the past three months, rising as much as 54%. We don’t expect any meaningful ramp-up in product revenues in 3Q and 4Q FY07 (unless 4Q sees license revenues as Sasken signs its first customer for its "E-Series" product). A sharp run-up, coupled with no visible ramp-up in product revenues, could result in stock consolidation in the near term. But from a 12-month perspective we are positive on the stock.

Risks and concerns

Products business has a high risk profile

The business is exposed to technology risks and to a possibility of the handsets not doing well or delayed. Pricing risks exist as well. Declines in ASPs could be faster than anticipated.

High volatility in revenues

With a hybrid model (services and products), Sasken has higher volatility in QoQ revenues than services players. A swing in product revenues could result in high volatility in quarterly performances.

Client concentration high

Sasken's client concentration remains significantly above that of peers, with the top-5 customers contributing to 77% of revenues.

Non-cash charge possible on sales discount to Nortel

In April 2005, Sasken issued 3.23m shares (11.7% of post issue equity capital) to its largest customer Nortel at a price of Rs141.63 per share. These shares were issued as a sales discount against guaranteed business from Nortel. Sasken may have to take a non-cash charge of Rs260m for this. The accounting treatment has not yet been decided.

Supply-side issues

Sasken's attrition continues to be high at 23.5% despite the higher-than-average wage hike of 18% that the company gave at the beginning of the year. With demand remaining strong and MNCs ramping up, supply-side pressures are unlikely to subside.

Other industry-specific risks

- US/Global slowdown
- Rupee appreciation
- Scarcity of talent

Financials

Figure 11. Sasken — Income Statement, FY05-09E (Rs in Millions)

Year to 31 March	FY05	FY06	FY07E	FY08E	FY09E
Revenue	2,418	3,081	5,085	7,019	8,958
Cost of revenue	1,319	1,888	3,190	4,053	5,190
R&D costs	204	132	168	351	448
Gross margins	895	1,061	1,727	2,615	3,320
SG&A expenses	540	579	864	1,123	1,344
EBITDA	355	482	863	1,492	1,976
EBITDA margin	14.7%	15.6%	17.0%	21.3%	22.1%
Dep and Amort.	142	179	245	398	466
EBIT	213	303	618	1,094	1,510
EBIT margin	8.8%	9.8%	12.2%	15.6%	16.9%
Other income/(expense)	32	63	13	-1	-22
Profit before tax	245	365	631	1,094	1,488
Tax provision	17	69	108	176	221
Profit from operations	228	297	523	918	1,268
Exceptional expenses	0	68	0	0	0
Reported profit	228	229	523	918	1,268
EPS - diluted	13.53	8.09	18.28	31.76	43.41
Growth		-40.2%	126.0%	73.8%	36.7%

Source: Company Reports and Citigroup Investment Research estimates

Figure 12. Sasken — Balance Sheet, FY05-09E (Rs in Millions)

As at 31 March	FY05	FY06	FY07E	FY08E	FY09E
Cash and Equivalents	113	2,015	685	765	978
Receivables	541	653	1,184	1,635	2,086
Other current assets	*239*	*421*	*514*	*514*	*514*
Net fixed assets	877	1,011	3,228	3,554	3,940
Capitalized software expenses	0	141	399	350	284
Investments	1	1	0	0	0
Other Assets	0	0	0	0	0
Total Assets	1,772	4,243	6,010	6,817	7,801
Total Current Liabilities	338	381	697	958	1,214
Loan	15	12	1,035	828	621
Total Stockholders' Equity	1,419	3,850	4,278	5,031	5,966
Total Liabilities and Stockholders' Eqty	1,772	4,243	6,010	6,817	7,801

Source: Company Reports and Citigroup Investment Research estimates

Figure 13. Sasken — Cash Flow Statement, FY05-09E (Rs in Millions)

Year to 31 March	FY05	FY06	FY07E	FY08E	FY09E
PBT	245	298	631	1,094	1,488
Tax	17	69	108	176	221
Depreciation and Amortization	142	179	245	398	466
Cash from operation	370	408	768	1,316	1,734
(Increase)/Decrease in NWC	(152)	(250)	(308)	(190)	(195)
Cash flow from operation	**218**	**158**	**460**	**1,126**	**1,539**
Cash flow from investing	*0*	*0*	*0*	*0*	*0*
Capital expenditure	227	454	2,720	674	786
Investments	*(0)*	*0*	*(1)*	*0*	*0*
Other investing	0	0	0	0	0
Cash flow from investing	**(227)**	**(454)**	**(2,718)**	**(674)**	**(786)**
Cash flow from financing	0	0	0	0	0
Increase in capital	112	2,297	3	0	0
Dividends paid	(58)	(96)	(98)	(165)	(333)
Increase in borrowings	10	(3)	1,023	(207)	(207)
Other financing	0	0	0	0	0
Cash flow from financing	**64**	**2,199**	**928**	**(372)**	**(540)**
Net cash changes	55	1,902	(1,330)	80.29	212.66

Source: Company Reports and Citigroup Investment Research estimates

Key business metrics

Figure 14. Key HR Metrics

	1Q06	2Q06	3Q06	4Q06	1Q07	2Q07
Total employees	2,159	2,466	2,504	2,575	2,897	3,373
- gross adds	221	474	188	203	469	675
- net adds	38	307	38	71	322	476
Utilization	74.9%	72.8%	74.3%	77.7%	79.1%	74.4%

Source: Company Reports

Figure 15. Geographic Mix

	1Q06	2Q06	3Q06	4Q06	1Q07	2Q07
North America	37.6%	35.3%	36.5%	30.6%	35.0%	32.0%
Europe	41.0%	30.5%	38.4%	37.3%	32.5%	39.0%
India	20.1%	17.9%	22.1%	25.9%	27.9%	24.0%
APAC	1.2%	16.3%	3.0%	6.2%	4.6%	6.0%

Source: Company Reports

Figure 16. Key Client Metrics

	1Q06	2Q06	3Q06	4Q06	1Q07	2Q07
Client concentration						
Top5 clients	76.2%	74.2%	75.7%	76.3%	76.7%	77.3%
Top10 clients	87.0%	83.8%	86.0%	88.6%	87.2%	86.6%
Profile of Tier1 clients						
< US$ 1 mn	13	13	13	13	13	13
US$ 1-3 mn	1	2	2	1	1	0
US$ 3-10 mn	1	1	1	2	2	3
US$ 10-20 mn	2	1	1	1	1	1
US$ 20m+	0	1	1	1	1	1

Source: Company Reports

Figure 17. Revenue Profile

	1Q06	2Q06	3Q06	4Q06	1Q07	2Q07
Product revenue	**8.0%**	**18.0%**	**2.8%**	**5.7%**	**8.9%**	**3.9%**
- license fees	3.4%	14.3%	1.9%	2.6%	5.9%	2.1%
- royalties	1.6%	0.8%	0.1%	1.3%	0.9%	1.5%
- customization	3.0%	2.8%	0.9%	1.8%	2.1%	0.3%
Services revenue	**92.0%**	**82.0%**	**97.2%**	**94.3%**	**91.1%**	**96.1%**
- onsite	17.5%	16.6%	16.7%	13.2%	16.0%	14.1%
- offshore	62.1%	56.0%	74.6%	73.1%	66.3%	76.6%
- fixed price	12.3%	9.4%	5.9%	8.0%	8.8%	5.4%

Source: Citigroup Investment Research estimates

Sasken Communication Technologies

Company description

Bangalore-based Sasken was established in 1989 and initially worked on electronic design automation projects. It now offers embedded software services to network equipment manufacturers, device manufacturers and service providers in the wireless and broadband space, and semiconductor vendors. Key clients include large tier-one vendors such as Nokia and Nortel. Sasken has also been investing in a products business.

Investment thesis

We rate Sasken as Buy/Medium Risk (1M). Increasing competition is driving telecoms vendors to outsourcing software and services to countries such as India. R&D services are being outsourced from India. Sasken, with a strong focus on the telecoms and embedded space, is benefiting from this trend. We expect Sasken's services business to record a 42% CAGR over FY06-09. The acquisition of Botnia has helped in accelerating growth. The products business is in investment mode, but the number of design-ins is encouraging. We expect a ramp-up and a turnaround in the products business in FY08; we forecast a 52% CAGR in revenues over FY06-09 and see the business turning around from losses to a 30%-plus margin in FY09.

Valuation

Our 12-month target price of Rs653 is based on a sum-of-the-parts valuation for the services business and the loss-making products business. We apply an

FY08E EV/EBITDA target of 12x for Sasken's services business, which is supported by the valuations of comparable mid-caps. We value Sasken's products business at 3x EV/Sales, similar to the valuation Motorola paid for Sasken's largest competitor, TTPCom, and is supported by our forecast 30%-plus margin in FY09. Our target price implies a P/E of 20.5x FY08E EPS — a premium to the sector, which we think is justified by Sasken's strong growth rates, better margin leverage and a sharp improvement in return ratios.

Risk

Our quantitative risk rating system, which tracks 260-day historical share price volatility, rates Sasken as Medium Risk. Risks that could impede the stock from reaching our target price include: (1) high client concentration; (2) slowdown in the telecoms industry; (3) delays in the handset launches in which Sasken is involved, or poor customer response to the handsets; (4) technology obsolescence; (5) wage inflation and currency appreciation; and (6) volatility in QoQ revenues, as investors are used to more linear models of growth for most Indian IT services companies.

Analyst Certification Appendix A-1

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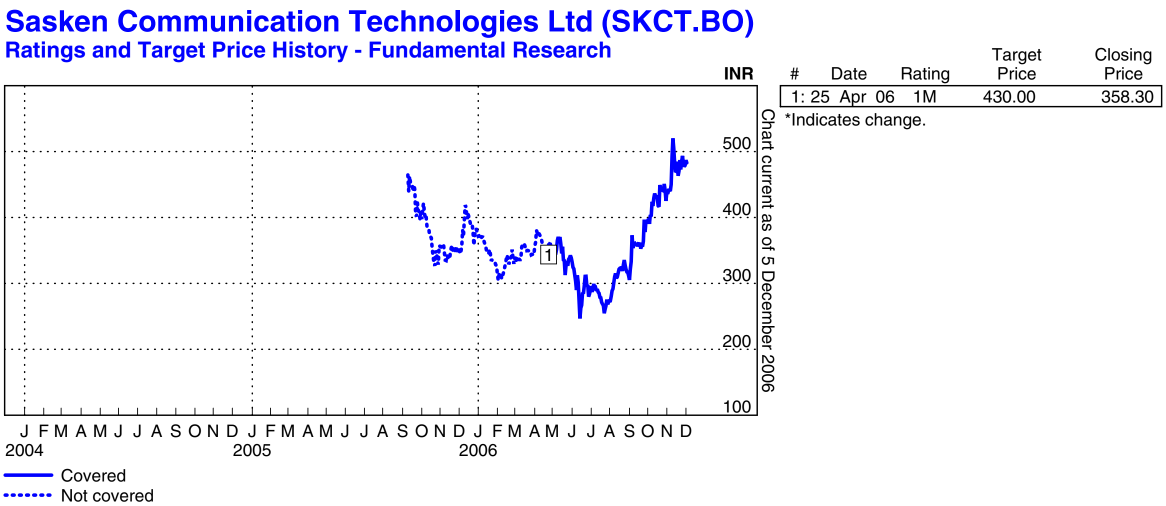

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