

Educomp Solutions (EDSO.BO)

 Target price change
 Estimate change

Sell: Expensive Valuations; Rising Financial Leverage

- Maintain Sell/High Risk with a lower target of Rs2,410** — We reduce FY10-11E EPS by ~3-9% to incorporate higher capex and funding costs. We value Educomp at Rs2,410, based on 20x FY10E EPS (from Rs2,900 earlier) as we factor in the correction in regional peers/local markets and roll forward our base year. The stock remains expensive in Asia's educational services sector.
- Investment positives** — (1) Educational spend will remain relatively defensive even in a challenging economic environment; we are building in ~97% revenue CAGR and 75% profit CAGR for FY08-11E; (2) strong Smart Class performance in a low competitive environment; and (3) strong execution.
- Why Sell?** — (1) Valuations at 35x FY09E and 22x FY10E EPS look expensive; (2) High capex over the next 3 years for capital-intensive K-12 expansion, recent acquisitions and organic capex – might need capital in the next 2 years, tough in the existing environment; (3) DSO still high at 160+ days; and (4) Declining ROIC and increasing debt-to-equity, on our estimates.
- Good 2Q FY09 results** — Educomp reported revenue of Rs981m (up 118% yoy), while EBITDA margin improved 13ppts (excluding forex impact). Net profit of Rs254m was marginally below expectations due to forex losses (Rs121m) from translation of FCCB. Segmental revenue growth was Smart Class up 164% yoy and ICT +8% yoy. Consolidated revenue grew 151% to Rs1.43bn, while consolidated profits were up 120% to Rs288m.
- Upside risks** — (1) Higher than expected growth; (2) Better margins; and (3) Benign capital raising environment – equity funding/cheaper debt funding.

Sell/High Risk	3H
Price (03 Nov 08)	Rs2,600.50
Target price	Rs2,410.00
	<i>from Rs2,900.00</i>
Expected share price return	-7.3%
Expected dividend yield	0.1%
Expected total return	-7.2%
Market Cap	Rs44,944M
	US\$926M

Price Performance (RIC: EDSO.BO, BB: EDLS IN)



Statistical Abstract

Year to	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
31 Mar							
2007A	287	15.93	42.7	163.2	36.2	28.1	0.1
2008A	706	35.40	122.2	73.5	15.6	35.0	0.1
2009E	1,395	73.76	108.4	35.3	10.7	39.3	0.1
2010E	2,289	120.46	63.3	21.6	7.0	43.0	0.1
2011E	3,727	196.16	62.8	13.3	4.5	45.1	0.2

Source: Powered by dataCentral

Hitesh Shah, CFA¹

 +91-22-6631-9872
 hitesh.b.shah@citi.com

Surendra Goyal, CFA¹

 +91-22-6631-9870
 surendra.goyal@citi.com

Vishal Agarwal¹

vishal1.agarwal@citi.com

See Appendix A-1 for Analyst Certification and important disclosures.

Citi Investment Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Non-US research analysts who have prepared this report are not registered/qualified as research analysts with the NYSE and/or NASD. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at <http://www.smithbarney.com> (for retail clients) or <http://www.citigroupgeo.com> (for institutional clients) or can call (866) 836-9542 to request a copy of this research.

¹Citigroup Global Markets India Private Limited

Fiscal year end 31-Mar	2007	2008	2009E	2010E	2011E
Valuation Ratios					
P/E adjusted (x)	163.2	73.5	35.3	21.6	13.3
EV/EBITDA adjusted (x)	88.4	35.8	14.8	9.9	6.9
P/BV (x)	36.2	15.6	10.7	7.0	4.5
Dividend yield (%)	0.1	0.1	0.1	0.1	0.2
Per Share Data (Rs)					
EPS adjusted	15.93	35.40	73.76	120.46	196.16
EPS reported	15.93	35.40	73.76	120.46	196.16
BVPS	71.81	167.23	244.15	372.57	583.65
DPS	2.00	2.50	3.00	3.50	4.00
Profit & Loss (RsM)					
Net sales	1,101	2,861	7,009	13,045	21,808
Operating expenses	-691	-1,919	-4,475	-8,623	-14,480
EBIT	410	942	2,534	4,421	7,327
Net interest expense	-14	-48	-317	-1,083	-1,783
Non-operating/exceptionals	59	178	-79	120	160
Pre-tax profit	454	1,072	2,138	3,459	5,705
Tax	-170	-351	-738	-1,196	-1,967
Extraord./Min.Int./Pref.div.	2	-15	-6	26	-11
Reported net income	287	706	1,395	2,289	3,727
Adjusted earnings	287	706	1,395	2,289	3,727
Adjusted EBITDA	507	1,273	3,262	5,392	8,658
Growth Rates (%)					
Sales	98.3	159.9	145.0	86.1	67.2
EBIT adjusted	94.1	129.9	169.0	74.5	65.7
EBITDA adjusted	89.2	151.3	156.2	65.3	60.6
EPS adjusted	42.7	122.2	108.4	63.3	62.8
Cash Flow (RsM)					
Operating cash flow	108	362	588	1,744	3,291
Depreciation/amortization	97	331	728	970	1,330
Net working capital	-271	-704	-1,937	-2,451	-3,400
Investing cash flow	-849	-2,162	-5,086	-7,116	-10,057
Capital expenditure	-676	-2,214	-4,690	-6,154	-8,435
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	1,238	3,614	2,478	5,143	6,920
Borrowings	1,146	2,518	2,538	5,213	7,000
Dividends paid	-39	-39	-60	-70	-80
Change in cash	497	1,813	-2,020	-229	154
Balance Sheet (RsM)					
Total assets	2,832	7,671	12,195	20,713	32,938
Cash & cash equivalent	1,106	2,912	886	683	826
Accounts receivable	496	1,157	3,072	5,540	8,962
Net fixed assets	831	2,714	6,675	11,859	18,963
Total liabilities	1,556	4,593	7,782	14,081	22,658
Accounts payable	0	0	0	0	0
Total Debt	1,255	3,773	6,311	11,523	18,523
Shareholders' funds	1,276	3,078	4,413	6,632	10,280
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	46.0	44.5	46.5	41.3	39.7
ROE adjusted	28.1	35.0	39.3	43.0	45.1
ROIC adjusted	27.0	21.5	25.4	23.3	23.4
Net debt to equity	11.7	28.0	122.9	163.5	172.2
Total debt to capital	49.6	55.1	58.8	63.5	64.3

For further data queries on Citi's full coverage universe please contact CIR Data Services Asia Pacific at CIRDataServicesAsiaPacific@citi.com or +852-2501-2791



Expensive Valuations; Rising Leverage

We reduce our estimates for FY10 and FY11 to factor in slower GDP growth and a tighter credit environment. We recognize that education (primarily school education) is relatively less impacted by economic concerns, and Educomp is the only Indian listed play in this sector. Also, the company has executed well on both revenue growth and margin. We value Educomp at Rs2,410 based on 20x FY10E EPS, a 20% premium to the current average valuation for the Asian Education Universe. We rate Educomp as Sell/High Risk on expensive valuations, despite high growth rate expectations.

While we recognize the good industry dynamics and the company's execution, we rate Educomp Sell/High Risk primarily on expensive valuations. Despite ~35% correction over the past 6 months, Educomp remains one of the most expensive stocks in our Asian Education universe. Also, we remain concerned about Educomp's high capex requirements – given recent acquisition, high capex in the organic business (still in strong growth mode) and expansion plans in the capital-intensive K-12 business – especially given the tough credit environment.

On our estimates, the company would be spending Rs10.8bn on capital expenses over FY08-10E and a further Rs8.4bn in FY11E. As of end-FY08, the company had gross cash of Rs2.9bn and was tied to debt of Rs7.25bn for capex over the next 18 months. This debt funding would take the debt-equity ratio to ~1.7x by end-FY10E (assuming out of money FCCB as debt). Also, on our forecasts, ROIC for Educomp will reduce from 25% in FY09E to 23% in FY11E.

Good 2Q FY09 results

Educomp reported a strong set of operating numbers, though forex losses on FCCB translation led to lower than expected net profit

Figure 1. Key Financials

Rs m	2Q FY08	2Q FY09	YoY
Revenue	449	981	118.3%
COGS	116	109	-6.0%
Personnel expenses	52	139	166.3%
Gross profit	281	733	160.6%
SG&A expenses	52	105	100.4%
EBITDA	229	628	174.4%
EBITDA margin	50.9%	64.0%	1309bp
Depreciation & Amortization	69	157	126.1%
EBIT	159	471	195.4%
EBIT margin	35.5%	48.0%	1254bp
Other income, net	29	-83	-384.2%
PBT	189	388	105.7%
Provision for tax	52	134	155.4%
Profit after tax	136	254	86.6%
Basic EPS	7.95	14.69	84.8%
Diluted EPS	6.48	24.41	276.7%

Source: Company Reports

Growth was driven by SmartClass, while retail and others segments reported ~8x growth on a low base

Figure 2. Financials by Segment

Rs m	2Q08	2Q09	Change
Professional Development			
Revenue	64.0	67.0	4.7%
EBIT	36.0	44.0	22.2%
EBIT margin	56.3%	65.7%	942bp
Smart Class			
Revenue	259.5	686.0	164.4%
EBIT	142.9	408.0	185.5%
EBIT margin	55.1%	59.5%	441bp
ICT Solutions			
Revenue	112.0	121.0	8.0%
EBIT	30.3	42.0	38.6%
EBIT margin	27.1%	34.7%	766bp
Retail & Others			
Revenue	13.8	108.0	682.6%
EBIT	5.7	76.0	1233.3%
EBIT margin	41.3%	70.4%	2907bp
Unallocated expenses	55.5	99.0	78.4%

Source: Company Reports

Reducing estimates to factor in tough credit environment

While 2Q FY09 results have been broadly in-line and educational spend is relatively defensive, we reduce FY10 and FY11 estimates to build in a tougher credit environment which could constrain growth plans due to higher capital intensity of the business. We largely maintain FY09 estimates, though we remain below management guidance on net profits.

Figure 3. Earnings Revisions

FYE	Net Profit	EPS	%	DPS
31 Mar	(RsM)	(Rs)	chg	(Rs)
2009E	1,395	73.76	0.6	3.00
Prev	1,376	73.36		3.00
2010E	2,289	120.46	-3.5	3.50
Prev	2,373	124.82		3.50
2011E	3,727	196.16	-9.1	4.00
Prev	4,102	215.74		4.00

Source: Citi Investment Research estimates

Target price of Rs2,410

We value Educomp at Rs2,410, based on 20x FY10E earnings (from Rs2,900 based on a 30x avg. FY09-10 EPS). We lower our target multiple to factor in: (1) the correction in comparable valuations; (2) correction in local market multiples (to a single-digit 12-month forward earnings); and (3) a roll-forward of earnings by 6 months.

Our target multiple of 20x is based on a ~45% discount (up from a 20% discount used previously to reflect rising financial leverage) to historical median valuation of 35x for Educomp since listing. Since listing in Jan 06, the stock has traded in a range of 15-80x one-year forward P/E, with a median of 35x.

Figure 4. Educomp — 12-month Forward PER Band Chart



Source: DataStream, Company Reports and Citi Investment Research estimates

Figure 5. Educomp Premium to Sensex Valuation (12-month forward PER)



Source: DataStream, Company Reports and Citi Investment Research estimates

The target multiple of 20x is at a 100%-plus premium to the current local market multiple to factor in strong earnings growth expected from Educomp.

The target multiple of 20x FY10E is at 20% premium to the current valuations (FY09E PER) for Asian education peers – this is fair, in our view, given better revenue and earnings growth forecast for Educomp.

Our target multiple is lower than current valuation multiple of New Oriental to factor in the following differences:

- Educomp has and will be free-cash flow negative over the next few years, on our estimates. New Oriental is free cash flow positive – over the past 2 years and for next three years, on CIR’s estimates.
- Educomp has high financial leverage of 1.2x by end-FY09E and 1.6x by end-FY10E. On the other hand, New Oriental is a debt-free company (net cash positive).
- Educomp’s business model is more capital-intensive – fixed asset turns for Educomp is ~1.1x and for New Oriental ~2x.

Figure 6. Asian Educational Services — Valuation Comparison (Prices as of 3-Nov-08)

Name	RIC	CIR	Mk Cap (US\$ m)	CMP (LC)	TP (LC)	P/E (x)			EV/EBITDA (x)			EV/Sales(x)		
	Code	Rating				FY08A	FY09E	FY10E	FY08A	FY09E	FY10E	FY08A	FY09E	FY10E
New Oriental	EDU.N	1L	2,433	63.95*	80.00	45.9	33.7	24.0	44.6	31.3	19.8	11.7	8.0	5.6
Raffles	RLSE.SI	2H	995	0.64	0.60	21.5	15.5	11.7	15.3	10.5	8.2	7.8	5.2	4.1
Megastudy	072870.KQ	1M	677	136,900	290,000	18.1	15.2	11.9	12.2	9.5	6.8	4.5	3.4	2.6
A.B.C. Learning Centre	ABS.AX	2S	198	0.54	0.91	7.9	6.1	4.4	9.6	6.7	5.2	0.8	1.0	1.0
Credu	067280.KQ	3H	142	32,300	24,000	18.2	23.0	15.1	10.6	16.4	11.0	2.0	2.0	1.9
NIIT	NIIT.BO	3H	114	34.10	27.00	7.3	6.5	6.2	6.1	5.3	4.3	0.6	0.5	0.4
Average						19.8	16.7	12.2	16.4	13.3	9.2	4.6	3.4	2.6
Educomp	EDSO.BO	3H	911	2,601	2,410	73.5	35.3	21.6	35.8	16.5	9.9	15.9	7.2	4.2

Source: Powered by DataCentral; All financial are calendarized to 31-Mar ending FY; LC= INR for NIIT and Educomp; SGD for Raffles and KRW for MegaStudy and Credu; USD for New Oriental *Priced as of 2 Nov

Educomp Solutions

Company description

Educomp is one of India's largest market-listed educational service providers focused on the K-12 space (both IT and IT-enabled education). Based in New Delhi, the company operates across various metros and mini metros for private schools and partners various state governments for IT education. The company has three primary business segments: (1) Smart Class is an online learning aid targeted towards private educational institutes; (2) ICT Solution is targeted towards government-aided schools for IT infrastructure and training; and (3) Professional Development instructor-led training targeted at school teachers. Apart from these key segments, the company has also ventured into retail initiatives with a) MathGuru.com, a retail online offering; b) online tutoring (through ThreeBrix acquisition); and c) K-12 schools (Roots-to-Wings), pre-schools and high schools.

Investment strategy

We rate Educomp as Sell/High Risk as we believe its valuations are expensive despite its strong revenue and earnings growth. We forecast a strong top-line CAGR of 97% and 74% EPS CAGR over FY08-11 as the company penetrates beyond tier 1 & 2 cities. Despite this growth, we believe Educomp is expensive. We are also concerned about the company's high capex requirements in the current challenging credit environment given its recent acquisition, high capex in organic business and expansion plans in the capital-intensive K-12 business.

Valuation

We value Educomp at Rs2,410 based on 20x FY10E earnings, a ~45% discount to the stock's historical median valuation of 35x since listing in Jan 06. The stock has traded in a range of 15-80x one-year forward P/E, with a median of 35x. We use a 45% discount to the historical P/E to reflect the company's rising financial leverage. P/E is a common approach used to value educational services. Our target multiple of 20x is at a 20% premium to the current valuations for Asian educational services peers. This is fair, in our view, given better revenue and earnings growth forecasts for Educomp.

Risks

Our quantitative risk-rating system, which tracks 260-day historical share-price volatility, rates Educomp Solutions as High Risk. We believe this risk rating is appropriate as there are execution risks in recent initiatives like Edu-Infra and Edu-Manage. Also, the company still has negative free cash flow and high receivable days on its balance sheet. The key upside risks to our target price include: (1) higher-than-expected sign-ups for Smart Class; (2) faster-than-expected fresh orders in the ICT and professional development businesses; (3) higher-than-expected enrollment in retail initiatives such as MathGuru.com

and online/home tutoring; (4) lower-than-expected inflation in fixed/corporate costs; and (5) better-than-expected EBIT margins in various business segments.

Appendix A-1

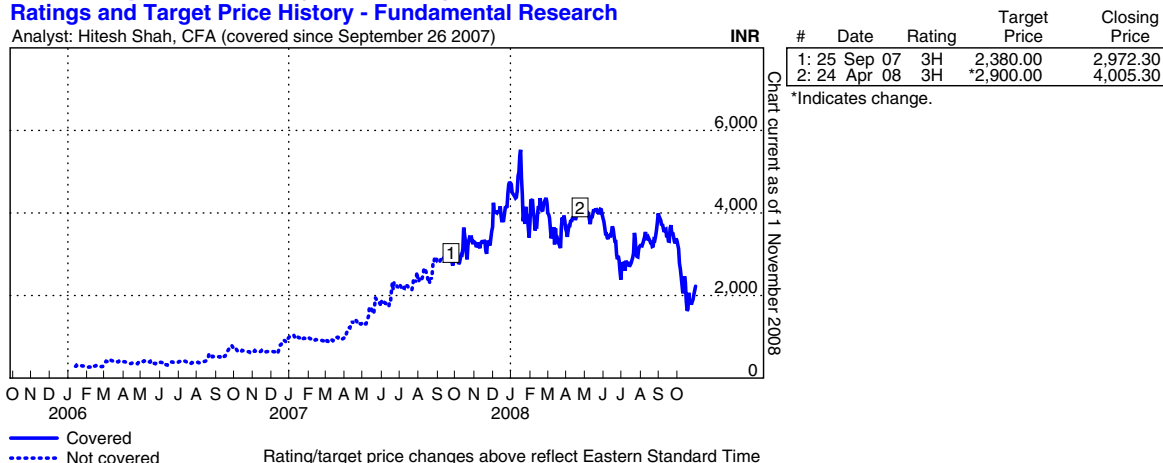
Analyst Certification

Each research analyst(s) principally responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst covers in this research report, all of the views expressed in this research report accurately reflect their personal views about those issuer(s) or securities. Each research analyst(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this research report.

IMPORTANT DISCLOSURES

Educomp Solutions (EDSO.BO) Ratings and Target Price History - Fundamental Research

Analyst: Hitesh Shah, CFA (covered since September 26 2007)



Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at <http://www.smithbarney.com> (for retail clients) or <http://www.citigroupgeo.com> (for institutional clients) or can call (866) 836-9542 to request a copy of this research.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of Educomp Solutions. This position reflects information available as of the prior business day.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from ABC Learning Centres Limited and Educomp Solutions in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, non-securities-related: ABC Learning Centres Limited and Educomp Solutions.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability, which includes revenues from, among other business units, the Private Client Division, Institutional Sales and Trading, and Investment Banking.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research product ("the Product"), please contact Citi Investment Research, 388 Greenwich Street, 29th Floor, New York, NY, 10013. Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Private Client Division clients should refer to www.smithbarney.com/research. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Investment Research Ratings Distribution

Data current as of 30 September 2008

	Buy	Hold	Sell
Citi Investment Research Global Fundamental Coverage (3133)	47%	37%	16%
% of companies in each rating category that are investment banking clients	48%	48%	40%

Guide to Fundamental Research Investment Ratings:

Citi Investment Research's stock recommendations include a risk rating and an investment rating.

Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

Investment ratings are a function of Citi Investment Research's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return).

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for

Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

Guide to Corporate Bond Research Credit Opinions and Investment Ratings: Citi Investment Research's corporate bond research issuer publications include a fundamental credit opinion of Improving, Stable or Deteriorating and a complementary risk rating of Low (L), Medium (M), High (H) or Speculative (S) regarding the credit risk of the company featured in the report. The fundamental credit opinion reflects the CIR analyst's opinion of the direction of credit fundamentals of the issuer without respect to securities market vagaries. The fundamental credit opinion is not geared to, but should be viewed in the context of, debt ratings issued by major public debt ratings companies such as Moody's Investors Service, Standard and Poor's, and Fitch Ratings. CBR risk ratings are approximately equivalent to the following matrix: Low Risk -- Triple A to Low Double A; Low to Medium Risk -- High Single A through High Triple B; Medium to High Risk -- Mid Triple B through High Double B; High to Speculative Risk -- Mid Double B and Below. The risk rating element illustrates the analyst's opinion of the relative likelihood of loss of principal when a fixed income security issued by a company is held to maturity, based upon both fundamental and market risk factors. Certain reports published by Citi Investment Research will also include investment ratings on specific issues of companies under coverage which have been assigned fundamental credit opinions and risk ratings. Investment ratings are a function of Citi Investment Research's expectations for total return, relative return (relative to the performance of relevant Citi bond indices), and risk rating. These investment ratings are: Buy/Overweight -- the bond is expected to outperform the relevant Citigroup bond market sector index (Broad Investment Grade, High Yield Market or Emerging Market); Hold/Neutral Weight -- the bond is expected to perform in line with the relevant Citigroup bond market sector index; or Sell/Underweight -- the bond is expected to underperform the relevant Citigroup bond market sector index. Performance data for Citi bond indices are updated monthly, are available upon request and can also be viewed at <http://sd.ny.ssmb.com/> using the "Indexes" tab.

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 03 November 2008 04:00 PM on the issuer's primary market.

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to ABC Learning Centres Limited and Educomp Solutions. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

Citigroup Global Markets Inc. or its affiliates beneficially owns 2% or more of any class of common equity securities of Educomp Solutions.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the subject company(ies) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Investment Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Smith Barney clients can ask their Financial Advisor for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia to wholesale clients through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992) and to retail clients through Citi Smith Barney Pty Ltd. (ABN 19 009 145 555 and AFSL No. 240813), Participants of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av.

Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. If the Product was prepared by Citi Investment Research and distributed in Japan by Nikko Citigroup Limited ("NCL"), it is being so distributed under license. If the Product was prepared by NCL and distributed by Nikko Cordial Securities Inc. or Citigroup Global Markets Inc. it is being so distributed under license. NCL is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. In the event that an error is found in an NCL research report, a revised version will be posted on Citi Investment Research's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by Financial Supervisory Commission and the Financial Supervisory Service. Hungkuk Life Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Bank Handlowy w Warszawie S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gashka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. The Product is made available in U.A.E. by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. DIFC, Bldg 2, Level 7, PO Box 506560, Dubai, UAE. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by NASD, NYSE and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Investment Research's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

its affiliates and are used and registered throughout the world. Nikko is a registered trademark of Nikko Cordial Corporation. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure is prohibited by law and will result in prosecution. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by Citi. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
