United Phosphorus (UNPO.BO)

Equity

Buy: Handsome Beat in 1Q; Maintain as Top Pick

- **Strengths shining through** — Trends in 1Q reflect the resilience in UPL's business model, as it absorbed the impact of high cost RM inventory & postponement of sales in key markets to materially beat estimates (rec. PAT by 16%). Concerns over the impact of poor/delayed monsoon in India & pricing pressure in global markets appear overdone to us. Maintain as Top Pick.
- **1Q: Strong beat** — Rec. PAT beat our estimate by 16%. Reported figures up to EBIDTA (sales up 26% YoY; margins down 56bps) are skewed by seeds sales on behalf of Advanta. Excluding this, sales grew 20% YoY despite postponement of sales in India (+2% YoY) & US (+24% YoY) and EBIDTA margins expanded 36bps, despite use of high cost RM in stock. Rec. PAT grew 6% YoY (lower other income & higher interest), which was impressive, given the high base last year.
- **Exploring synergies with Advanta** — UPL is exploring front-end synergies with Advanta by integrating the sales & distribution teams in India. It has started using its distribution network to sell seeds on Advanta's behalf (Rs770m sales in 1Q). This will likely remain on a no-profit-no-loss basis (source & sell at the same price) for a year as they figure out the extent of synergies – which would then be shared between the two companies.
- **Other key takeaways** — a) Benefit of lower RM cost to reflect in future quarters as high cost inventory has been used up; b) India: Some pushing out of sales but off-take has picked up over last 15 days; c) Debt higher by cRs3.6bn to fund higher working capital – likely to ease over the year; d) Pricing: EU is still strong, US is better for UPL due to low base last year, and India is competitive.

Buy/High Risk	1H
Price (23 Jul 09)	Rs149.90
Target price	Rs223.00
Expected share price return	48.8%
Expected dividend yield	1.0%
Expected total return	**49.8%**
Market Cap	Rs65,891M US$1,361M

Price Performance (RIC: UNPO.BO, BB: UNTP IN)

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2007A	2,897	7.20	27.1	20.8	4.0	20.9	0.4
2008A	4,183	9.04	25.6	16.6	2.9	22.4	0.7
2009E	6,179	13.36	47.7	11.2	2.4	24.7	1.0
2010E	7,069	15.28	14.4	9.8	1.9	23.0	1.0
2011E	8,289	17.92	17.3	8.4	1.6	21.1	1.0

Source: Powered by dataCentral

Prashant Nair, CFA
+91-22-6631-9855
prashant.nair@citi.com

Akshay Rai
akshay.rai@citi.com

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

Fiscal year end 31-Mar	2007	2008	2009E	2010E	2011E
Valuation Ratios					
P/E adjusted (x)	20.8	16.6	11.2	9.8	8.4
EV/EBITDA adjusted (x)	13.1	10.4	7.3	6.4	5.1
P/BV (x)	4.0	2.9	2.4	1.9	1.6
Dividend yield (%)	0.4	0.7	1.0	1.0	1.0
Per Share Data (Rs)					
EPS adjusted	7.20	9.04	13.36	15.28	17.92
EPS reported	7.01	7.12	10.49	15.28	17.92
BVPS	37.16	50.93	62.91	77.29	96.45
DPS	0.60	1.00	1.50	1.50	1.50
Profit & Loss (RsM)					
Net sales	24,498	37,306	49,317	54,742	59,866
Operating expenses	-20,483	-31,773	-41,484	-45,688	-49,433
EBIT	**4,015**	**5,534**	**7,833**	**9,054**	**10,433**
Net interest expense	-1,046	-1,208	-1,759	-1,608	-1,509
Non-operating/exceptionals	135	-832	-1,154	642	749
Pre-tax profit	**3,104**	**3,493**	**4,920**	**8,088**	**9,674**
Tax	-525	-424	-269	-1,294	-1,741
Extraord./Min.Int./Pref.div.	241	222	200	274	356
Reported net income	**2,821**	**3,291**	**4,851**	**7,069**	**8,289**
Adjusted earnings	2,897	4,183	6,179	7,069	8,289
Adjusted EBITDA	5,671	7,056	9,760	11,079	12,485
Growth Rates (%)					
Sales	36.4	52.3	32.2	11.0	9.4
EBIT adjusted	17.1	37.8	41.6	15.6	15.2
EBITDA adjusted	17.4	24.4	38.3	13.5	12.7
EPS adjusted	27.1	25.6	47.7	14.4	17.3
Cash Flow (RsM)					
Operating cash flow	**8,820**	**2,136**	**-1,458**	**6,942**	**8,097**
Depreciation/amortization	1,656	1,522	1,927	2,025	2,052
Net working capital	4,424	-2,407	-7,598	-1,721	-1,912
Investing cash flow	**-12,394**	**-5,735**	**-2,239**	**-1,278**	**-1,388**
Capital expenditure	-4,350	-1,527	-552	-720	-713
Acquisitions/disposals	-6,986	-2,650	0	0	0
Financing cash flow	**6,784**	**7,947**	**1,628**	**-3,100**	**-4,734**
Borrowings	7,247	-3,279	2,378	-2,350	-7,100
Dividends paid	-454	-14	-750	-750	-789
Change in cash	**3,210**	**4,348**	**-2,068**	**2,564**	**1,975**
Balance Sheet (RsM)					
Total assets	**47,837**	**52,706**	**64,062**	**68,725**	**74,593**
Cash & cash equivalent	4,604	4,946	4,237	7,076	9,407
Accounts receivable	5,697	8,541	11,410	13,467	14,726
Net fixed assets	10,921	12,797	14,032	14,307	14,780
Total liabilities	**32,841**	**30,271**	**36,366**	**34,711**	**29,924**
Accounts payable	12,504	12,514	16,250	16,459	17,999
Total Debt	19,593	15,683	18,060	15,710	8,610
Shareholders' funds	**14,996**	**22,435**	**27,696**	**34,015**	**44,669**
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	23.1	18.9	19.8	20.2	20.9
ROE adjusted	20.9	22.4	24.7	23.0	21.1
ROIC adjusted	15.0	18.8	23.8	21.1	22.5
Net debt to equity	99.9	47.9	49.9	25.4	-1.8
Total debt to capital	56.6	41.1	39.5	31.6	16.2

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

Powered by: dataCentral

Handsome Beat in 1Q; Maintain as Top Pick

Trends in 1Q reflect the resilience in UPL's business model, as it absorbed the impact of high cost RM inventory & postponement of sales in key markets to materially beat estimates (rec. PAT by 16%). Concerns over the impact of poor / delayed monsoon in India & pricing pressure in global markets appear overdone to us. Maintain as Top Pick.

1QFY10 Results Snapshot

Figure 1. United Phosphorus 1QFY10 Consolidated Earnings Summary (Rs m, %)

Year Ended March	1QFY09	1QFY10	% Ch YoY	4QFY09	% Ch QoQ
Revenues	**12,993**	**16,377**	***26.0***	**13,917**	***17.7***
Cost of Revenues	8,230	10,754	*30.7*	8,292	*29.7*
Gross Profit	**4,763**	**5,622**	***18.0***	**5,626**	***(0.1)***
Gross Margins (%)	*36.7*	*34.3*	*-233 bps*	*40.4*	*-609 bps*
Operating Expenses	2,254	2,552	*13.2*	2,696	*(5.3)*
EBITDA	**2,509**	**3,070**	***22.4***	**2,930**	***4.8***
EBITDA Margins (%)	***19.3***	***18.7***	***-56 bps***	***21.1***	***-230 bps***
Depreciation	378	501	*32.8*	638	*(21.4)*
Interest/Finance Charges	304	461	*51.5*	575	*(19.8)*
Other Income	147	65	*(55.9)*	85	*(23.3)*
PBT	1,975	2,173	*10.0*	1,802	*20.6*
Tax	148	187	*26.1*	137	*36.3*
Deferred Tax	92	98	*7.1*	(154)	*(163.7)*
Effective Rate (%)	*12.1*	*13.1*	*97 bps*	*(1.0)*	*nm*
PAT	1,735	1,888	*8.8*	1,819	*3.8*
Income from Associates	22	(26)	*(215.2)*	29	*(189.6)*
Recurring Net Income	**1,757**	**1,862**	***6.0***	**1,848**	***0.8***
Extraordinary exp / (inc)	281	99	*(64.5)*	341	*(70.8)*
Reported Net Income	1,477	1,763	*19.4*	1,508	*16.9*

CIRA Comments

Recurring PAT is c16% above our estimate

Numbers include some sales of seeds on behalf of Advanta on a no profit, no loss basis. Numbers excluding these sales are more relevant (see analysis in figure 3)

1QFY09 revenues includes Rs770m from sales of seeds on behalf of Advanta – **like-to-like revenue growth of 20%**

EBIDTA & gross margins appear lower due to the seeds sales. Excluding this, **gross margins dipped 60bps** (use of high cost RM inventory) while **EBITDA margins expanded 36bps** (control over fixed overheads)

Sequential decline in depreciation & amortization driven by high amortization in 4Q (UPL provides for full year amortisation even on intangible assets created in 4Q)

EO items: Translation loss of Rs117m in 1QFY10 (Rs330m in 1QFY09) net of tax (15%)

Source: Company Reports and Citi Investment Research and Analysis

Figure 2. United Phosphorus 1QFY10 Consolidated Revenue Breakup (Rs m, %)

Year Ended March	1QFY09	1QFY10	% Ch YoY	4QFY09	% Ch QoQ
International Sales	**10,279**	**12,759**	***24.1***	**12,041**	***6.0***
% of Total Sales	*78.2*	*77.6*		*86.0*	
North America	3,534	4,379	*23.9*	3,036	*44.2*
Europe	4,177	4,855	*16.2*	5,853	*(17.1)*
Rest of the World	2,567	3,525	*37.3*	3,152	*11.8*
Domestic Sales	**2,862**	**3,683**	***28.7***	**1,961**	***87.8***
% of Total Sales	*21.8*	*22.4*		*14.0*	
India - UPL	2,862	2,913	*1.8*	1,961	*48.6*
India – Seeds (Advanta)	-	770	*nm*	-	*nm*
Total sales	**13,141**	**16,442**	***25.1***	**14,002**	***17.4***

CIRA Comments

Pricing remains strong – up 4% YoY on average

Currency component of growth at 6-7%; volumes up 15%

Better pricing YoY in North America but muted volumes due to delay in planting season

RoW market sales driven by YoY growth in LatAm, Japan

India sales affected by delay in planting season and decline in chloralkali sales – c6% YoY growth in sales adjusted for seeds and chloralkali sales

Source: Company Reports and Citi Investment Research and Analysis

UPL sources seeds from Advanta & sells the same on a no-profit-no-loss basis.

Will charge for distribution once they figure out the extent of synergy benefits to be shared between the two companies

Figure 3. United Phosphorus 1QFY10 – Adjusted for Seeds Sales on Behalf of Advanta (Rs m, %)

Year Ended March	1QFY09	1QFY10				4QFY09	
	UPL	UPL	% Ch YoY	Seeds	Combined	UPL	% Ch QoQ
Revenues	**12,993**	**15,607**	***20.1***	**770**	**16,377**	**13,917**	***12.1***
Cost of Revenues	8,230	9,984	*21.3*	770	10,754	8,292	*20.4*
Gross Profit	4,763	5,622	*18.0*	-	**5,622**	5,626	*(0.1)*
Gross Margins (%)	*36.7*	*36.0*	*-63 bps*	*0.0*	*34.3*	*40.4*	*-440 bps*
Operating Expenses	2,254	2,552	*13.2*	-	2,552	2,696	*(5.3)*
EBITDA	**2,509**	**3,070**	***22.4***	**-**	**3,070**	**2,930**	***4.8***
EBITDA Margins (%)	***19.3***	***19.7***	***36 bps***	***0.0***	***18.7***	***21.1***	***-138 bps***

Source: Company Reports and Citi Investment Research and Analysis

Rate variance is on a YoY basis; may be flat sequentially; pricing better in US & stable in Europe, competitive in India

Volume growth of 15% includes seeds sales. Adjusted for this, it stands at 9% (lower than annual guidance of 15% due to postponement of the seasons in India & North America)

Figure 4. United Phosphorus 1QFY10 – Sales Growth Drivers (Rs m, %)

	1QFY10	1QFY09	Increase	*% Increase*
Sales	**16,160**	**12,870**	**3,290**	***26%***
Exchange Impact			840	*7%*
Quantity Variance			1,910	*15%*
Rate Variance			540	*4%*

Source: Company Reports

Earnings call takeaways

Guidance update

- Maintains FY10 guidance of c10-15% volume growth & EBITDA margins in the range of 19-20% - does not include the seeds sales on behalf of Advanta.
- This is contingent on currency. Revenue growth could be higher if INR does not appreciate materially vis-à-vis the US$ & Euro.

Update on Key Markets

- **India**: Muted volume growth (c6% in agchem) due to delay in monsoon. However, the level of optimism has increased in the last 15 days.
  - No inventory write offs are likely even if sales are lower as the buying season typically extends till October & products have 2-3 year shelf life.
  - Topline impacted to the extent of Rs100-110m by lower ECU realizations (chloralkali business) – lower by c30% over 1QFY09.
- **North America**: Pricing is better YoY due to renegotiation of contracts. UPL had not received the benefit of higher prices last year despite the rise in input costs. This is being corrected now.
  - Delay in planting season has led to muted volume growth. UPL expects this to catch up in the rest of the year.
  - Competitive scenario remains more challenging in the US than Europe.
- **Europe**: Pricing remains strong
  - Early indications of a good season ahead.
  - Cerexagri restructuring complete except for some manufacturing related issues which UPL expects will wind up in FY10.
- **RoW markets**:
  - Mexico, Columbia sales remain strong
  - Expect Lat Am sales to pick up going forward
  - Japan is a key market in the Asia-Pacific region

Exploring front end synergies with Advanta in India

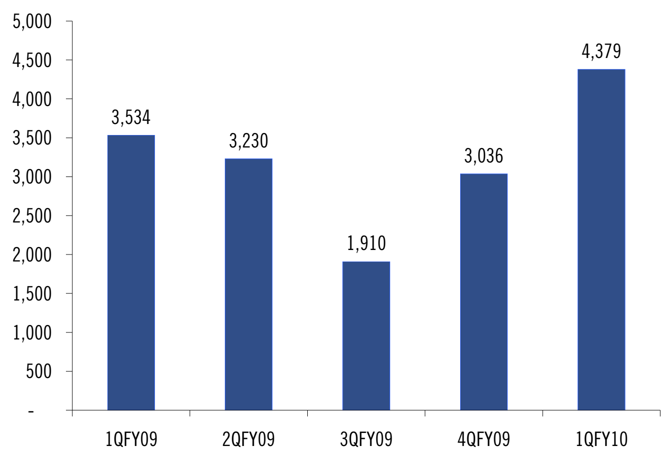
- UPL & Advanta have integrated their sales and marketing efforts in the Indian market into a single team allowing Advanta to leverage UPL's much wider distribution network. This helps UPL target key customers with a composite offering (seeds plus crop chemicals), thus allowing significant benefits to both businesses.
- cRs770m of sales from Advanta's seeds business in 1QFY10
- No margins captured in UPL's books so far. Entire income is passed through to Advanta till the synergy benefits can be identified (likely to take 12 months). Post this, the synergies would be shared between the two companies by way of UPL charging Advanta for distribution.

Balance Sheet

- Outstanding gross debt of Rs23bn (c70% forex) including US$67m FCCBs
- Cash & bank balances of Rs4.5bn cash
- Net working capital up to 94 days from 91 days at March ’09 end
- Capex of Rs2bn in FY10

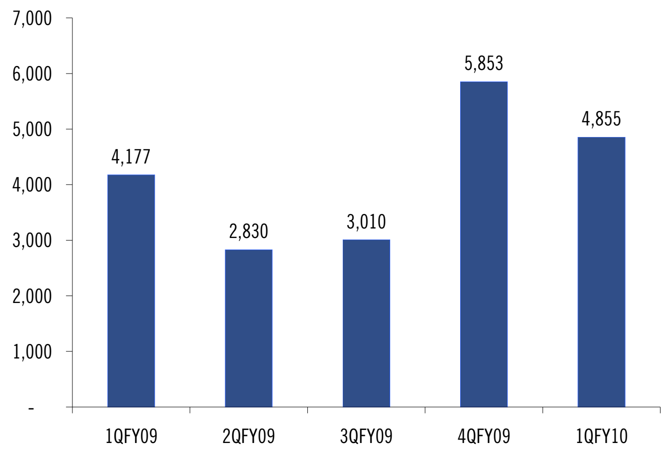
Sales Trend – Key Markets

Figure 5. North America Revenues (Rs m)



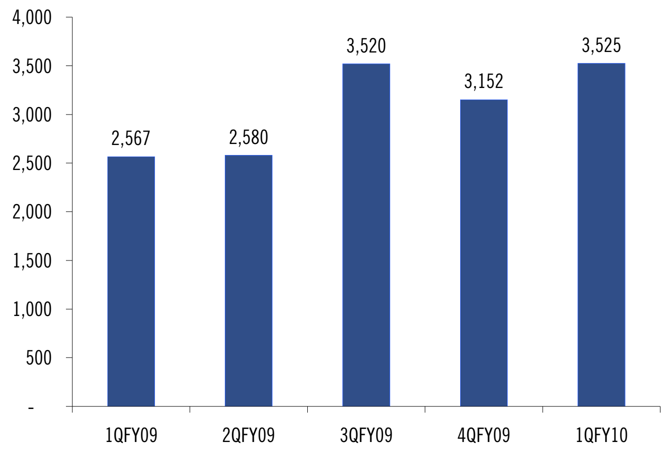
Source: Company Reports and Citi Investment Research and Analysis

Figure 6. EU Revenues (Rs m)



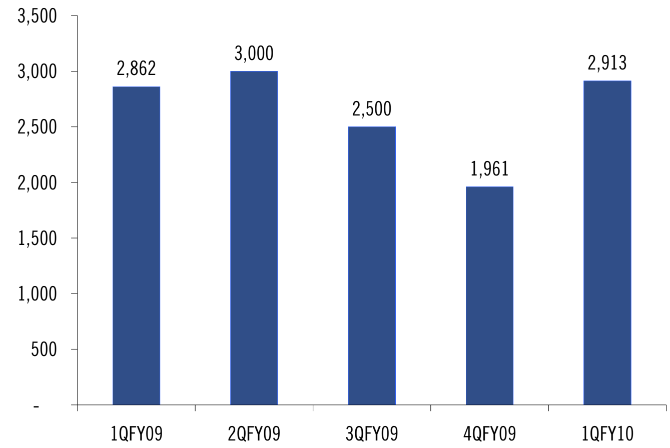
Source: Company Reports and Citi Investment Research and Analysis

Figure 7. RoW Revenues (Rs m)



Source: Company Reports and Citi Investment Research and Analysis

Figure 8. India Revenues (excludes seeds revenues) (Rs m)



Source: Company Reports and Citi Investment Research and Analysis

United Phosphorus

Company description

UPL is the only Indian play on the global generics opportunity in crop protection products. It has focused on the generics opportunity in the regulated markets of the US and Europe, and has achieved success over the past decade. Apart from fully integrated manufacturing facilities, UPL also has strong distribution infrastructure across its targeted markets. UPL's growth strategy is built around filing its own registrations and acquiring tail-end brands of global majors in regulated markets. With c.80% of its revenue coming from global markets and a strong direct presence in the targeted markets, UPL has emerged as the third-largest generics company in the world.

Investment strategy

We rate the stock Buy/High Risk (1H), with a target price of Rs223/share. UPL is the only Indian play on the global crop protection market, with over 80% of revenues coming from global markets. The global crop protection market looks attractive and is highly consolidated, with limited generics penetration, due to the high entry barriers that generate pricing discipline. UPL has reached critical scale in the regulated markets of the EU and US through a series of acquisitions over the past two to three years. We believe that UPL's growing free cash flows give it the ability to step up growth initiatives - both organic and inorganic. We forecast FY09-11E revenue and net profit CAGRs of 10% and 16% respectively, which although relatively modest are impressive given that it comes on the back of a record FY09.

Valuation

The generics crop protection segment is likely to witness healthy growth, with leading companies such as UPL expected to be among the key beneficiaries. We therefore believe that P/E vs. earnings CAGR or EV/EBIDTA vs. EBIDTA CAGR is the correct metric to value companies such as UPL. Our target price is based on 14x 12-month forward earnings, which is the median P/E multiple for UPL over the last five years and is within its trading range of 9-21x since

January 2004, when the stock got re-listed post the reverse merger with its subsidiary (Search Chem). Our target price of Rs223/share is based on 14x June '10E earnings.

Risks

Our risk rating on UPL is High Risk, in line with our quantitative risk-rating system, in order to account for the volatility in current markets. While we see no major concerns on the business front, the high institutional ownership of the stock leaves it vulnerable to redemption led selling pressures in the current environment. The main downside risks to our target price and estimates include: (1) Continued volatility in the availability & pricing of key raw materials; (2) Inability to effectively integrate any of its acquisitions; (3) Cut in farm subsidies in regulated markets, (4) Poor monsoons in India.

Appendix A-1

Analyst Certification

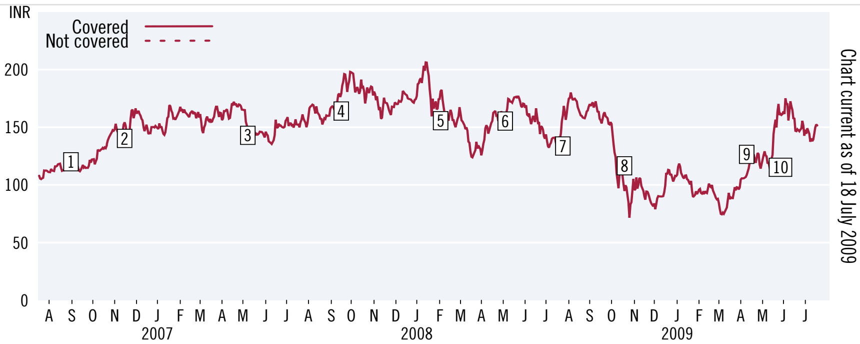
Each research analyst(s) principally responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst 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

United Phosphorus (UNPO.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Prashant Nair, CFA



Date	Rating	Target Price	Closing Price
1 31-Aug-06	1L	*171.50	116.98
2 15-Nov-06	1L	*191.50	154.28
3 8-May-07	1L	*190.00	148.60
4 17-Sep-07	1L	*230.00	179.08
5 3-Feb-08	1L	*222.50	174.60
6 4-May-08	1L	*229.00	157.63
7 24-Jul-08	1L	*242.50	160.13
8 20-Oct-08	*1H	*161.00	94.75
9 9-Apr-09	1H	*183.00	108.60
10 27-May-09	1H	*223.00	161.70

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of United Phosphorus. 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 United Phosphorus in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: United Phosphorus.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: United Phosphorus.

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 investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 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. 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 Jun 2009	**Buy**	**Hold**	**Sell**
Citi Investment Research Global Fundamental Coverage	41%	38%	21%
% of companies in each rating category that are investment banking clients	46%	45%	39%

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 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 (to publicly available Citigroup bond indices performance), 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), performances of which are updated monthly and can be viewed at http://sd.ny.ssmb.com/ using the "Indexes" tab; 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 sector of the Citigroup indexes.

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. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited	Prashant Nair, CFA,Akshay Rai

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 23 July 2009 04:00 PM on the issuer's primary market.

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

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 issuer(s) 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. Please ask your Financial Consultant 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.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. Incorporated (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports. In addition to the disclosures on this research report and on the CIRA disclosure website (https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html), important disclosures regarding the relationship between the companies that are the subject of this report and Morgan Stanley Smith Barney LLC, Morgan Stanley or any of its affiliates, are available at www.morganstanley.com/researchdisclosures.

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

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 through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant 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. Dom Maklerski Banku Handlowego S.A. ul. Chalubinskiego 8, 00-630 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 Gasheka 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 Gassef, 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. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA" to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. 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.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST