CRISIL RESEARCH

INDEPENDENT EQUITY RESEARCH

Diamines and Chemicals Ltd

Initiating coverage

Enhancing investment decisions

Explanation of CRISIL Fundamental and Valuation (CFV) matrix

The CFV Matrix (CRISIL Fundamental and Valuation Matrix) addresses the two important analysis of an investment making process – Analysis of Fundamentals (addressed through Fundamental Grade) and Analysis of Returns (Valuation Grade) The fundamental grade is assigned on a five-point scale from grade 5 (indicating Excellent fundamentals) to grade 1 (Poor fundamentals) The valuation grade is assigned on a five-point scale from grade 5 (indicating strong upside from the current market price (CMP)) to grade 1 (strong downside from the CMP).

CRISIL Fundamental Grade	Assessment	CRISIL Valuation Grade	Assessment
5/5	Excellent fundamentals	5/5	Strong upside (>25% from CMP)
4/5	Superior fundamentals	4/5	Upside (10-25% from CMP)
3/5	Good fundamentals	3/5	Align (+-10% from CMP)
2/5	Moderate fundamentals	2/5	Downside (negative 10-25% from CMP)
1/5	Poor fundamentals	1/5	Strong downside (<-25% from CMP)

Analyst Disclosure

Each member of the team involved in the preparation of the grading report, hereby affirms that there exists no conflict of interest that can bias the grading recommendation of the company.

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Diamines and Chemicals Ltd

Navigating for a long term growth

Fundamental Grade	**3/5 (Good fundamentals)**
Valuation Grade	**5/5 (CMP has strong upside)**
Industry	**Speciality Chemicals**

October 18, 2011

Fair Value Rs 98

CMP Rs 72

Diamines and Chemicals Ltd (Diamines) is a Vadodara-based based speciality chemical player and is the only manufacturer of ethyleneamines in India. The company enjoys barriers to entry based on technology and its long existence in the market. However, there are concerns on product concentration and limited visibility on long-term business growth. We assign Diamines a fundamental grade of **3/5**, indicating that its fundamentals are good relative to other listed securities in India.

Diamines can benefit from ethyleneamines' growing domestic market

Diamines is the only established player in the domestic ethyleneamines market and holds ~40% share in the domestic piperazine (a sub-segment of ethyleneamines) market. With the Indian ethyleneamines market expected to grow at ~8% CAGR in the next few years and piperazine likely to benefit from domestic pharma growth, Diamines is well positioned to tap this opportunity.

Debottlenecking and raw material availability to drive short-term growth; execution is a key monitorable

Diamines' growth in the next two years will largely be production driven. We expect it to increase its non-piperazine ethyleneamines production from 1,150 to ~3,500 tonnes and that of piperazine by an incremental~350 tonnes. Key drivers: 1) debottlenecking of its plant that will increase its total production capacity, and 2) incremental raw material availability for piperazine. However, success of the scaled up operation through de-bottlenecking is a key monitorable.

Visibility on long-term growth outlook is low

Growth in Diamines' piperazine business is limited due to limited long-term availability of its raw material. As a result, long-term growth will largely be driven by non-piperazine ethyleneamines sales. We believe that incremental capacity from debottlenecking will drive production growth in the next two to three years only. However, long-term growth is dependent on higher capacity expansion, on which currently there is limited visibility.

Expect revenue to grow, but margins likely to be under pressure

We expect revenues to grow at a two-year CAGR of 15% to Rs 1,099 mn in FY13. However, we expect EBITDA margins to decline by ~500 bps to 24.7% in FY13 driven by higher raw material prices and a decline in realisations. We expect PAT to remain flat at Rs 144 mn in FY13 vs. Rs 146 mn in FY11.

Valuations – the current price has a 'strong upside' to fair value

CRISIL Research has used the discounted cash flow method to value Diamines and arrived at a fair value of Rs 98 per share. We initiate coverage on Diamines with a valuation grade of **5/5**, indicating that the market price has a **strong upside**.

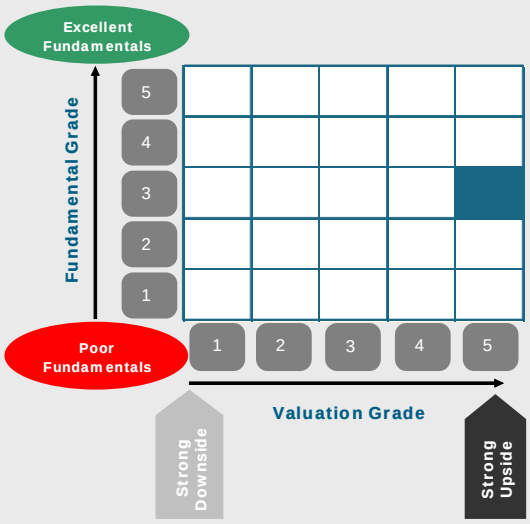
KEY FORECAST

(Rs mn)	FY09	FY10	FY11	FY12E	FY13E
Operating income	303	456	828	909	1,099
EBITDA	75	89	247	241	271
Adj Net income	9	9	146	127	144
Adj EPS-Rs	0.9	0.9	15.0	13.0	14.8
EPS growth (%)	(46.8)	(5.0)	1,567.3	(12.9)	13.7
PE (x)	76.0	80.3	4.8	5.5	4.8
EV/EBITDA (x)	11.2	9.5	3.6	4.0	3.3
Dividend yield (%)	0.9	1.9	5.6	4.5	5.1
RoCE (%)	20.6	20.7	46.6	36.9	37.5
RoE (%)	7.1	5.1	55.9	39.6	37.9

CMP: Current market price

Source: Company, CRISIL Research estimate

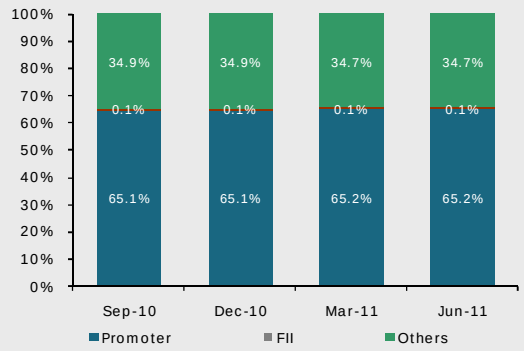
CFV MATRIX



KEY STOCK STATISTICS

NIFTY/Sensex	5118/17025
NSE ticker	DIAMINESQ
Face value (Rs per share)	10
Shares outstanding (mn)	9.7
Market cap (Rs mn)/(US$ mn)	699/14
Enterprise value (Rs mn)/(US$ mn)	881/18
52-week range (Rs)/(H/L)	87/41
Beta	0.53
Free float (%)	34.8%
Avg daily volumes (30-days)	2,569
Avg daily value (30-days) (Rs mn)	0.2

SHAREHOLDING PATTERN



PERFORMANCE VIS-À-VIS MARKET

	Returns			
	1-m	3-m	6-m	12-m
Diamines	1%	-10%	50%	47%
NIFTY	1%	-8%	-12%	-16%

ANALYTICAL CONTACT

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Table 1: Diamines and Chemicals: Business environment

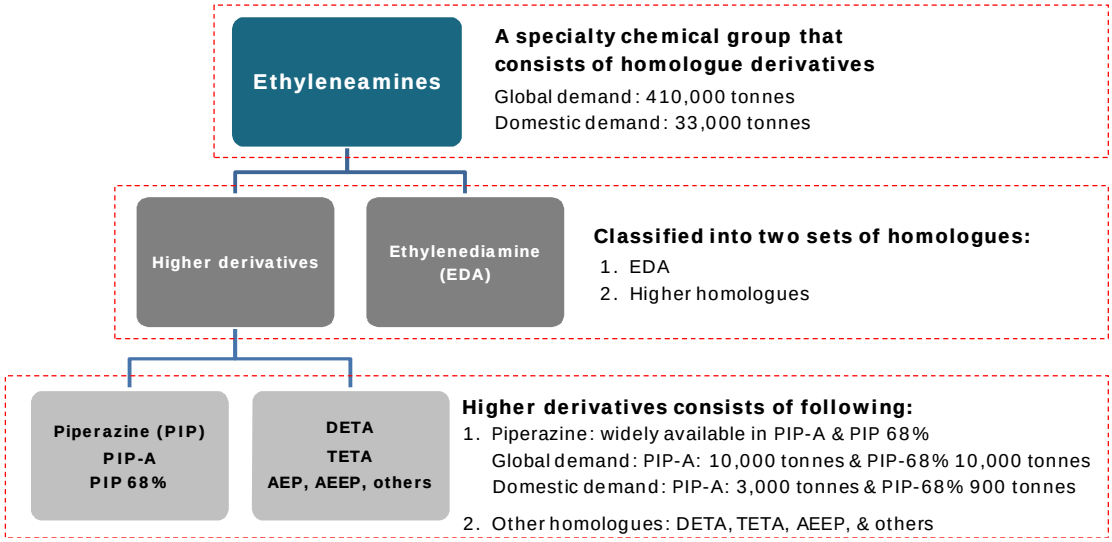
Product / Segment	Piperazine*	Non-piperazine ethyleneamines**
Revenue contribution (FY11)	75%	25%
Revenue contribution (FY12)	77%	23%
Product / service offering	Piperazine-Anhydrous (PIP-A), one of the saleable forms of piperazine.	Ethylenediamine (EDA) and higher ethyleneamines derivatives that mainly include: • Diethylenetetramine (DETA) • Triethylenetetramine (TETA) • Aminoethylpiprazine (AEP)
Geographic presence	Domestic consumption: 96% Exports: 4%	Domestic consumption: 93% Exports: 7%
Market position	• Only domestic player to produce PIP-A • Has 40% share of the domestic piperazine market.	• One of the few global players to own ethyleneamines manufacturing process technology. • Only domestic player to produce ethyleneamines; has 8% share of the largely import-dependent domestic market.
Industry growth expectations	• High demand from various end-applications. • Constraints in current manufacturing process are limiting growth in global piperazine production.	• Ethyleneamines demand is expected to grow at around 8% CAGR in the next few years. • Current demand is 29,200 tonnes, which is expected to increase to 38,000 tonnes by 2014
Sales growth (FY09-FY11 – 2-yr CAGR)	68%	31%
Sales forecast (FY11-FY13 – 2-yr CAGR)	7%	42%
Demand drivers	• PIP-A mainly used by the pharma industry in anti-infective, anti-histamine, anti-filarial, anthelmintics (dewormer for parasites in veterinary applications). • In India, it is largely used to manufacture Ciprofloxacin, an anti-bacterial drug. Other applications include use in polyamide agents, chelates.	• Diverse end-product applications such as chelates, polyamide resins, lube and fuel oil, fungicides, and chemical intermediates • Dethiocarbamate-based fungicides are the main demand drivers. Available under fungicides such as Maneb, Mancozeb and Zineb.
Key competitors	Domestic: None Global (importers): BASF, Tosoh, Delamine	Domestic: None Global (importers): Dow Chemicals, BASF, Tosoh, Huntsmen, Akzo Nobel
Key risks	• Supply side risk arising from over-dependence on Dow Chemicals for raw materials. • Operating margin highly susceptible to fluctuations in PIP-A prices. • Increasing raw material prices.	• Macroeconomic slowdown could impact demand from end-product manufacturers. • Delay in ramp up of debottlenecking exercise. • Increases in raw material prices.

*Piperazine is one of the product sub-segments of ethyleneamines. It is widely available in two saleable forms: PIP-A and PIP 68%.

**Non-piperazine ethyleneamines include EDA and higher derivatives such as DETA, TETA, etc.

Source: Company, CRISIL Research

Figure 1: Snapshot of ethyleneamines products



Source: Company, CRISIL Research

Figure 2: Introduction to ethyleneamines

What are ethyleneamines?

Ethyleneamines are a series of homologue speciality chemicals that are widely used for organic synthesis, in drugs, dyes, pesticides, resins*, chelates*, pharma intermediates and others. It consists of various derivatives that are widely used both as an industrial raw material and as an end-product. One of the key characteristic of these derivatives is that any derivative used in any particular application is hard to be substituted by the other derivatives. The derivatives can be classified as below:

1. Ethylenediamine (EDA)
2. Higher derivatives
    a. Piperazine: This is commercially available in two forms:
        i. Piperazine Anhydrous (PIP-A) - widely used in pharma, gas sweetening.
        ii. PIP-68% - widely used in making piperazine salts, gas sweetening and others.
    b. Other derivatives include: DETA, TETA, AEP, AEEP, etc.

*Refer to glossary in Appendix-II

Source: Company, CRISIL Research

Grading Rationale

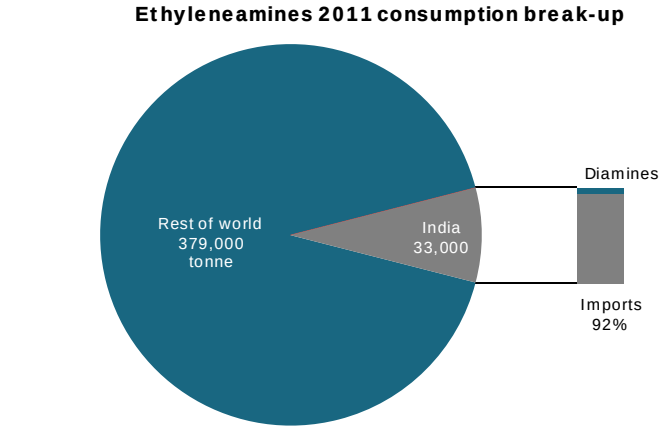
Only player in the growing ethyleneamines domestic market

Diamines is the only player to produce and supply ethyleneamines in the domestic market. Globally, the company is one of the few players who have developed and own the process technology. Other global players include Dow Chemicals, BASF, Bayer, Tosch, Huntsman and AkzoNobel. The company holds ~8% share in a largely import-dependent domestic ethyleneamines market. The barriers to entry that offer an advantage to Diamines are:

1. Niche market segment: We believe that the current target market segment is characterised by limited economies of scale and limited raw material availability, with few players possessing the technical know-how.
2. Process technology: We believe that new players will require a gestation period to acquire the complex technology involved in the EDC process, and bring it to global productivity standards.

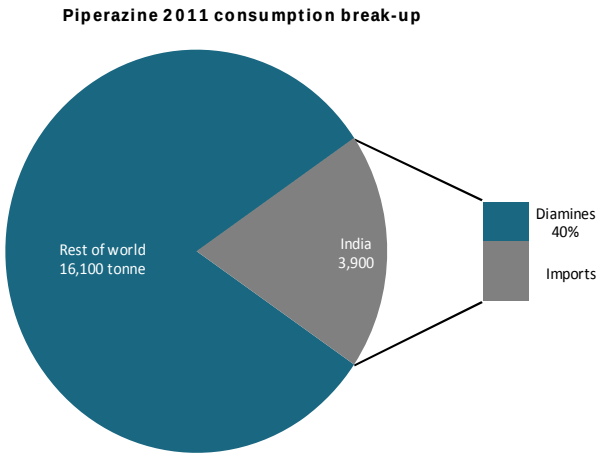
Diamines has 8% share of the domestic ethyleneamines market

Figure 3: Diamines, a small but only player in the domestic ethyleneamines market...



Source: Company, CRISIL Research

Figure 4: ...caters to 40% of the domestic piperazine market



Source: Company, CRISIL Research

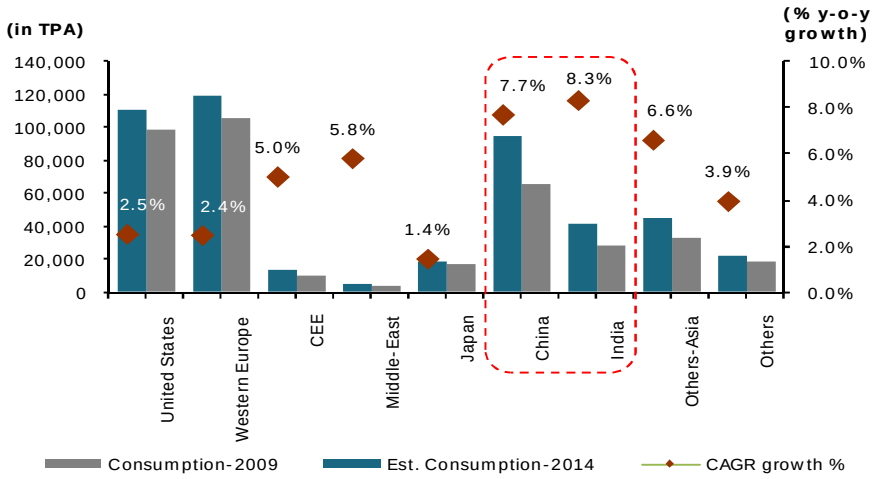
Holds 40% share in the domestic piperazine market, a sub segment of ethyleneamines

Diamines holds around 40% share in the domestic piperazine market, one of the sub-segments of the ethyleneamines market. The domestic market for piperazine is estimated to be around 3,900 tonnes. Out of that, the demand for PIP-A, which is predominantly used in pharma application, is 3,000 tonnes. The company supplies around ~1,500 tonnes of piperazine, in the form of PIP-A, and derives around ~75% of its total revenues from piperazine sales.

Diamines appears well positioned to benefit from the upcoming growth opportunity

The global market for ethyleneamines is expected to grow at a CAGR of 4% to ~470,000 tonne in 2014 from ~378,000 tonne in 2009. It is currently estimated to be around 410,000 tonne. Majority of this growth is expected to come from growing consumption in India and China.

Figure 5: India and China to drive global ethyleneamines demand growth in next four years

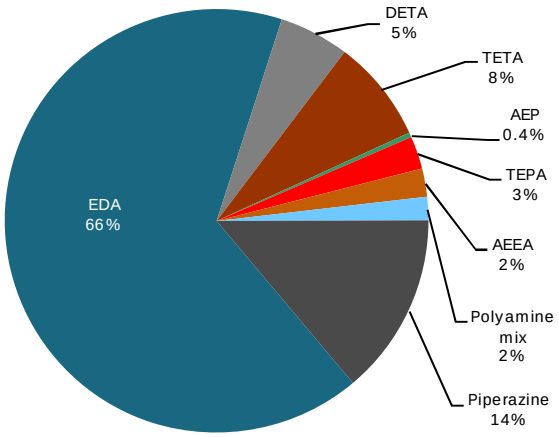


Source: Company, CRISIL Research

Indian ethyleneamines demand largely driven by EDA consumption in fungicides

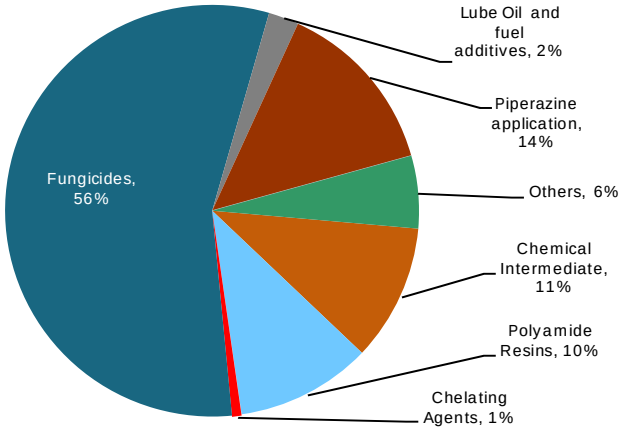
The Indian market for ethyleneamines is expected to grow at a rate of ~8% in the next few years, largely driven by increasing demand for EDA. EDA demand is expected to grow at a CAGR of 12.4% during the same period. We believe that Diamines, being the only established player in the domestic market, is well positioned to benefit from this growth opportunity.

Figure 6: EDA constitutes the largest share of ethyleneamines demand in India



Source: Company, CRISIL Research

Figure 7: Fungicides represent the largest application of ethyleneamines in India



Source: Company, CRISIL Research

Ethyleneamines growth driven by diverse end-use applications

The various derivates of ethyleneamines have diverse applications. Of these, EDA is the most in demand because of its wide usage. The Indian demand for ethyleneamines is primarily being driven by fungicides, polyamide resins, and the pharma sector.

Table 2: End-use applications of ethyleneamines derivatives

End usage	EDA* Ethylene Diamine	DETA* Diethylene Triamine	TETA* Triethylene Tetramine	TEPA* Tetraethylene pentamine	AEEA*	AEP* Aminoethyl piprazene	PIP* Piperazine	POLYAMINES MIX*
Fungicides*	■							
Polyamide/Epoxy*	■	■	■	■	■	■		
Chelants*	■	■						
Additive for Lube oils/fuels*	■	■	■	■				■
Paper Resins*		■						
Bleach	■							
Urethanes*		■					■	
Surfactants*					■			
Fabric Softners		■	■		■			
Pharma intermediate	■						■	
Chemical Intermediate	■	■	■	■	■	■	■	■

*Refer to glossary-Appendix-II

Source: Company, CRISIL Research

Table 3: Growth of major end-use applications of ethyleneamines

End-use applications	Description
Chelates	• Production of chelating agents such as Ethelenediaminetetraacetic acid (EDTA) is one of the largest applications of EDA • In India, the demand for EDA for use in EDTA is expected to increase by at least 15% per year
Fungicides	• The global demand for fungicides is expected to be ~2,00,000 tpa • EDA is used as a major raw material for dithiocarbamate fungicide, one of the widely used fungicides • In India, fungicide-based EDA demand is expected to grow by 5% per annum through 2014
Lube oil and fuel additives	• Estimated global demand for lube and oil additives in 2009 was ~49,000 tpa • Require EDA and other higher amines, particularly TETA as key ingredients • In India, demand for it is expected to grow at >5% annually through 2014
Polyamide resins	• Estimated global demand for polyamide resins in 2009 was ~53,000mt • In India, the demand is expected to grow at >20% driven by the construction and infrastructure sectors
Others (domestic market)	• Surfactants: market expected to grow at least 12% per year • Paper resins: to boost demand of ethyleneamines by 20% • Pharma intermediates: to drive demand for piperazine

Source: Company, CRISIL Research

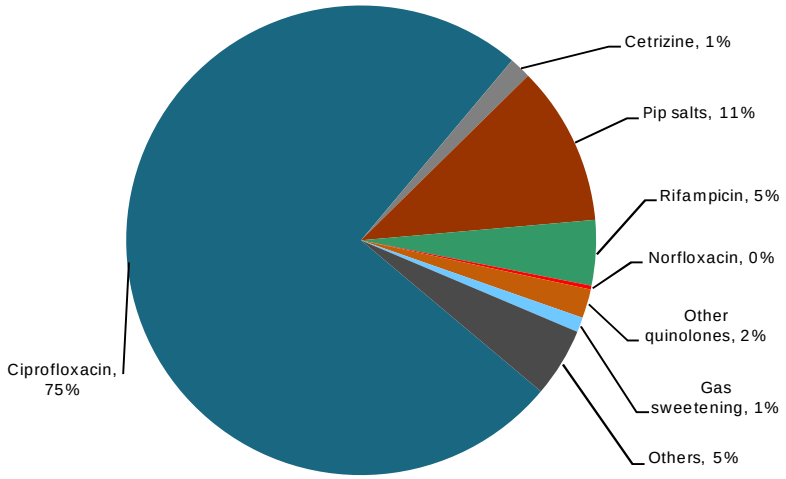
Strong footprint in the domestic piperazine market

Diamines has a strong foothold in the domestic piperazine market. It sells piperazine in the form of PIP-A, which has significant demand in the pharma industry. It is the only manufacturer of PIP-A in the country and holds a 50% market share. We believe that demand for PIP-A is likely to continue as it is primarily used in the manufacturing of ciprofloxacin, an anti-bacterial drug. Diamines' clients comprise established pharma companies and pharma-

intermediates, including Neuland Labs, Lupin, Dr. Reddy, Hiran Organics and Ranbaxy.

Growth in anti-infective drugs such as ciprofloxacin is a key driver

Figure 8: Major domestic end-use applications of PIP-A



Source: Company, CRISIL Research

Piperazine expected to generate consistent cash flows

The company earns relatively higher margins of around 30-35% in PIP-A sales compared to other ethyleneamines derivative products. We believe that piperazine will continue to witness strong demand from end-use applications such as bulk drugs in pharma and gas sweetening. Ciprofloxacin is a widely used anti-infective drug and currently has no major substitute. We believe piperazine will generate consistent cash flows for the company on the back of Diamines' strong foothold (~40% share) in the market and higher profitability.

Growth is constrained by limited raw material availability

Diamines' long-term production of piperazine is constrained because of limited availability of raw material. Ethyleneamines mixture, the major raw material, consists of crude piperazine mixture, an end-residue of the EDC route, and PIP-68%. Diamines primarily imports the crude piperazine mixture from Dow Chemicals and Huntsmen. With the given global production capacity, we believe that Diamines' supply of crude piperazine will be limited to 1,400-1,500 tonnes, in the long term. Additionally, availability of PIP-68% is likely to be limited because of its growing usage in other applications such as gas sweetening and others. The company currently procures around 1,400 tonnes of PIP-68% and we believe that its supply will be limited to 1,700 to 1,800 tonnes in the long run.

Piperazine is a potential cash cow

As a result, we believe that the incremental growth will likely be driven by the company's focus to grow its sales of non-piperazine ethyleneamines such as EDA, DETA, and others.

De-bottlenecking in non-piperazine ethyleneamines production to address near-term growth

The company is currently debottlenecking its current manufacturing set-up that will help it to increase its production of non-piperazine ethyleneamines production. The company currently manufacturers around 1,150 tonnes of non-piperazine ethyleneamines through: 1) the CPA process and 2) the EDA process.

The company manufactures ethyleneamines through two processes:

CPA process: *The company processes the polyamine mixture to manufacture piperazine and other higher ethyleneamine derivatives. This is an energy intensive process that requires distillation and purification of end products.*

EDA process: *This is one of the two conventional routes (EDA and MEA) of manufacturing ethyleneamines globally. The main end products are ethylenediamine (EDA) and higher ethyleneamines such as DETA, TETA, AEP, piperazine, and others.*

Debottlenecking to drive production growth of non-piperazine ethyleneamines

Table 4: Comparison between CPA and EDC manufacturing *processes*

Current process	Production mix	FY11 production	Constraint
CPA process	- PIP-A is nearly 40-45% - Ex piperazine ethyleneamines constitute the rest	- PIP A:1,400 tonnes - Non-piperazine ethyleneamines: 550 tonnes	Limited by crude piperazine mixture availabilibilty
EDA route	- Ex piperazine ethyleneamines is 98% - Piperazine is 1-2%	- Ex piperazine ethyleneamines: ~550 tonnes - PIP A: negligbile	Operational capacity constraint

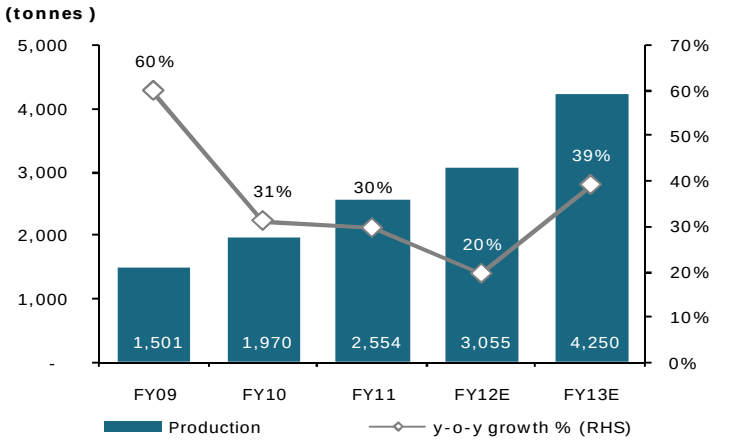
Source: Company, CRISIL Research

The current set-up has operational constraints due to which the company cannot scale up its production significantly through the EDC route. The debottlenecking exercise coupled with higher piperazine raw material availability should enable the company to scale up its production capacity of non-piperazine ethyleneamines to 3,500 tonnes per year from the current level of 1,150 tonnes. Piperazine production capacity is likely to increase from 1,400 to 1,750 tonnes. It is expected to cost the company around Rs 90 mn in one time capital expenditure. The management expects it to complete the entire debottlecking exercise by December 2011; however, we believe there can be some delay as it may take time to stabilise the process and expect the exercise to be completed by February 2012.

Production likely to grow at two year CAGR of 29%

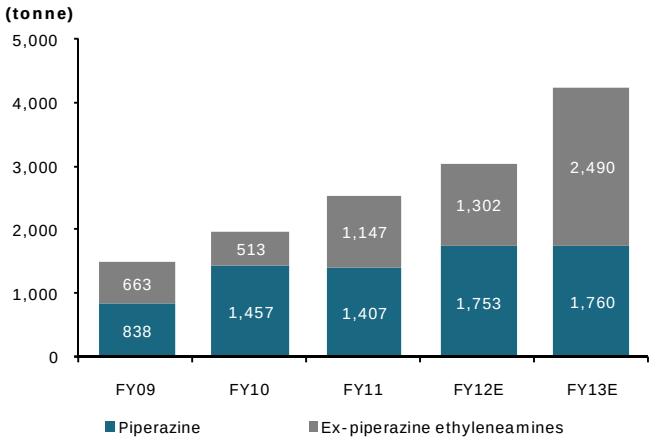
Driven by the incremental capacity from plant debottlenecking and higher raw material availability for the CPA process from Dow and Huntsmen, we expect Diamines will be able to increase its overall ethyleneamines production from 2,500 tonnes in FY11 to ~4,250 tonnes in FY13 at a two year CAGR of 29%, which will drive its near-term growth.

Figure 9: EA production expected to grow at 29% CAGR in next two years



Source: Company, CRISIL Research

Figure 10: Production of piperazine and other ethyleneamines



Source: Company, CRISIL Research

Target market likely to absorb the incremental production

The company has established a position in the non-piperazine ethyleneamines market segment, where it predominantly focuses on small players. These players benefit more by procuring their requirements from a local supplier than through imports. Demand from these small players is estimated to represent nearly 25% of the current demand of ~29,000 tonnes.

In addition, the company also gets intermittent orders from larger players like Indofil, United Phosphorus Limited, and Sabero Organics. The company currently supplies around 1,150 tonnes to the market; we believe its incremental production of around 2,300 tonnes will likely get absorbed by its smaller players whose current demand consists of around 7,250 tonnes and will be insufficient to tap the 29,000 tonne market demand. We believe that the company offers the following value proposition to its customers, which enable it to capture the domestic market despite the imports:

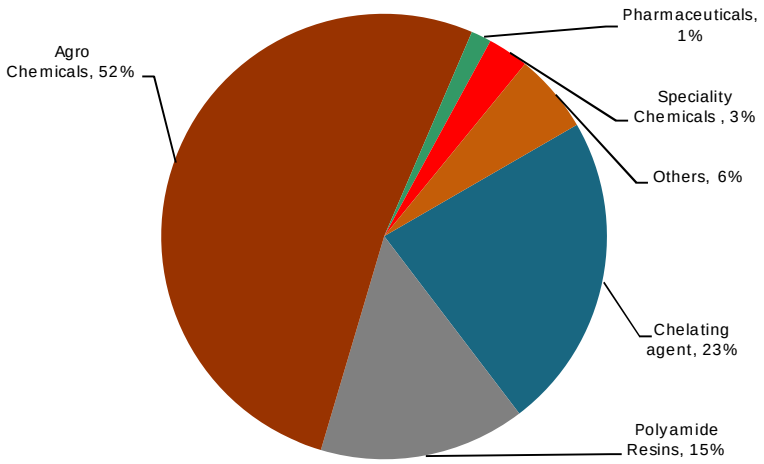
(i) **Geographical proximity:** Allows flexibility in order size and lower lead time.

(ii) **Economically viable for small players:** While importing, companies have to adhere to a minimum order size, which becomes economically unviable for small domestic players as they lack scale of operations. In contrast, a local supplier will allow them flexibility in order size, which will be based on their requirement.

(iii) **Caters intermittent supply-demand gap for faced by large customers:** A local supplier can help to plug any intermittent gap in a large customer's supply requirement through lower lead time and order size adaptability.

Primarily focuses on small players who prefer a local supplier over imports

Figure 11: Major domestic end-use applications of EDA



Source: Company, CRISIL Research

Long-term growth is contingent on new capacity where visibility is low

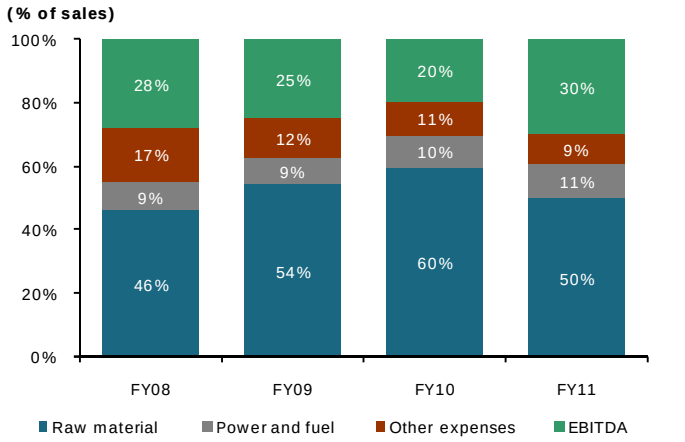
The de-bottlenecking of capacity constraints will enable the company to produce an incremental ~2,700-tonnes of ethyleneamines, which will facilitate near-term growth. Post this, the company's production will again hit against capacity constraints. As a result, we believe that Diamines' long-term growth is significantly contingent on expanding or adding new capacity for ethyleneamines based on the EDC process. While the management is planning to expand its capacity by around ~15,000 tonnes in future, either in India or Middle East, the visibility on the timing, location, and nature of business expansion is limited. The company is also evaluating options of expansion through a JV with other partners who may be strategic or financial partners. We believe that the expansion plan is in an early stage and will take at least four to five years to materialise. Progress of the capacity expansion plan remains a key monitorable. We believe there will be business risks involved as the company will be competing with global players who have much better economies of scale and pricing power compared to Diamines.

Visibility on long-term growth is low

Operating margins susceptible to price volatility and raw material mix

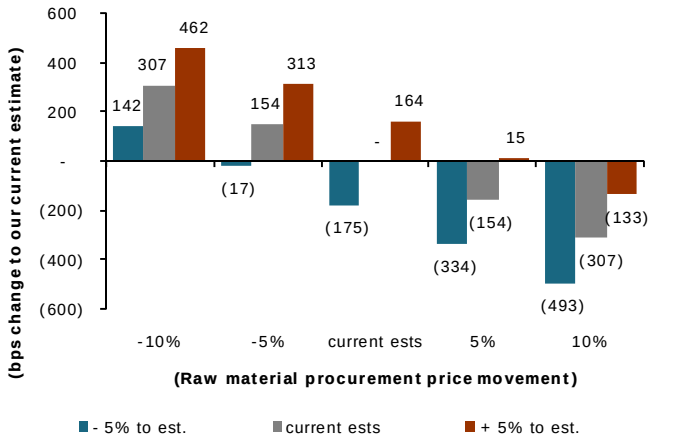
Diamines' operating margins have remained volatile primarily because of the volatility in product prices coupled with changing raw material mix. Diamines prices its products based on their import prices. Raw material is the major cost driver for the company and constitutes around 50 to 60% of total sales.

Figure 12: Operating profits susceptible to movement in raw material cost



Source: Company, CRISIL Research

Figure 13: EBITDA margin sensitivity to major product and raw material prices



Source: Company, CRISIL Research

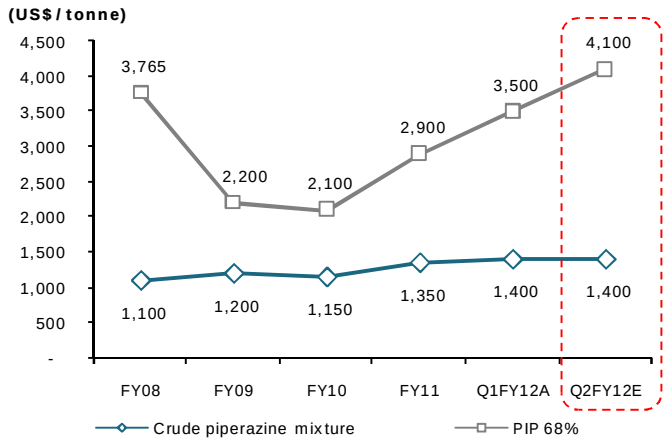
Raw material cost increased in the recent past

Diamines' raw material costs have increased in the recent past largely due to:

1. Increasing raw material prices: Prices of PIP-68% have steadily moved up from $2,600 per tonne in June 2010 to $4,100 per tonne in June 2011.
2. Change in raw material mix: Ethyleneamines mixture is the major raw material currently in use. PIP-68%, as a percentage of polyamine mixture, has increased over the years to around 60%. The main reason behind higher usage of PIP 68% has been a constraint on crude piperazine availability coupled with growing domestic demand for PIP-A. Supply of crude piperazine from Dow had been constrained because of Dow's operational hiccups

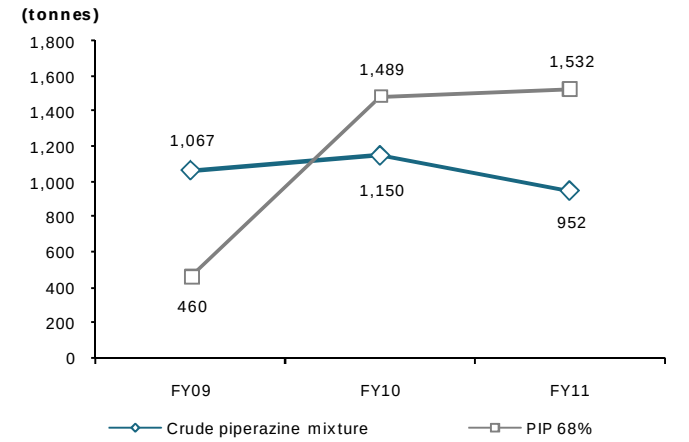
Increasing raw material cost is a concern

Figure 14: Increase in PIP-68% prices is pushing overall raw material cost higher



Source: Company, CRISIL Research

Figure 15: Higher usage of PIP 68% to counter shortage in crude piperazine mixture



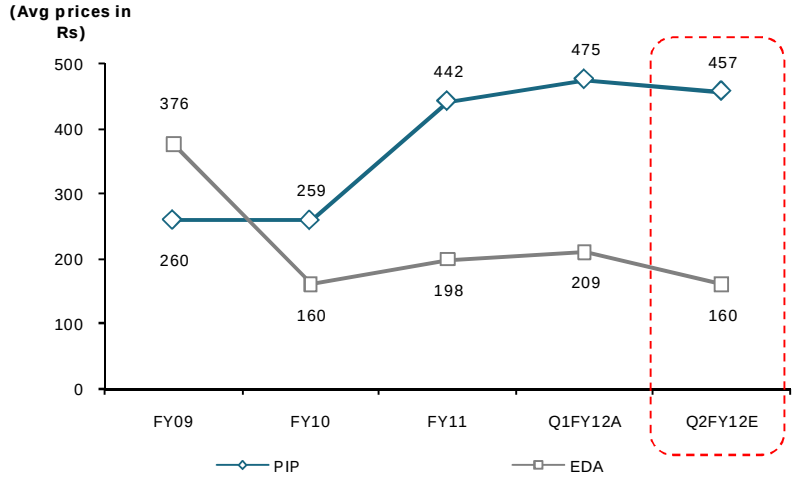
Source: Company, CRISIL Research

Piperazine prices moved up on a higher trajectory pushed by strong demand

Piperazine global prices have gone up significantly because of growing demand, catalyzed by the new-found application in gas sweetening process. It is estimated that there are around 1,800 refineries in Europe that will drive incremental demand for piperazine for their gas sweetening processes from next year. In addition, piperazine also faces significant demand from the global pharmaceutical market. One of the key uses is in anti-infectives such as Ciprofloxacin. While we expect to see some correction in prices, we believe that prices will continue to benefit from a favourable demand supply gap.

Piperazine prices have increased due to rising demand for use in ciprofloxacin and anti-infective drugs

Figure 16: Product pricing trend in recent years.



Source: Company, CRISIL Research

EDA prices have been volatile

In the recent years, global prices of EDA have been fairly volatile, which can be attributed to a mix of business and macroeconomic factors. EDA prices had declined significantly in FY10 to Rs 160 from Rs 376 in FY09, largely due to new supply that came in 2010. In the subsequent year, prices increased to ~Rs 200 driven by higher demand that narrowed the demand-supply gap. However, prices in the current quarter have declined to around Rs 160-170 because of the recent slowdown in global demand.

Key risks

Product concentration risk from over dependence on piperazine business

While Diamines appears to have a stable footing in the domestic piperazine market, we believe there is high product concentration risk given that ~75% of its revenues come from piperazine. While the company produces ethyleneamines through the EDC process, the proportion is low. However, we expect that production increase through debottlenecking would mitigate the risks significantly.

Operating margin highly susceptible to fluctuations in raw material prices

Diamines' operating margin is significantly susceptible to product and raw material prices. We estimate that a 5% adverse change in raw material prices will lower operating margins by ~150 bps. As a result, we believe that any incremental fluctuations to our estimated prices can have an upside or downside risk to our estimates.

Supply-side risk arising from overdependence on one supplier

Diamines procures the majority of its raw material, crude piperazine and PIP-68%, for the CPA process, from Dow. Historically, operational shut-downs in Dow and increasing global demand for piperazine have affected raw material supply. We believe that over-dependence on a single player makes Diamines vulnerable to risks arising from unavailability of raw materials. While the company has added Huntsmen as the second supplier, we don't believe this will adequately hedge the company against any potential risks.

Financial Outlook

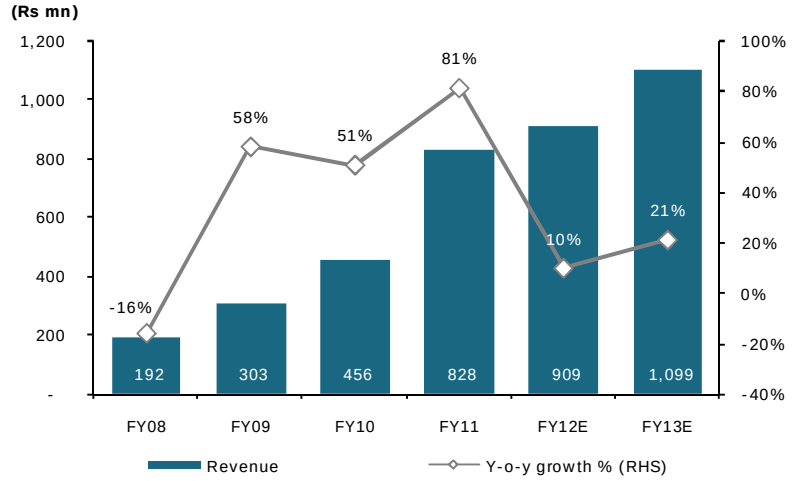
Revenues to grow at two-year CAGR of 15%

Diamines' revenue has grown at a five-year CAGR of 32% to Rs 828 mn in FY11 from Rs 210 mn largely due to traction seen in domestic piperazine demand. It was incrementally supported by 121% y-o-y growth in non-piperazine ethyleneamines production in FY11 and increase in sales realisation of PIP-A. Going forward, we expect the revenue growth to taper down to ~10% in FY12 and ~21% in FY13 primarily due to capacity constraints. We expect revenues to grow at a two year CAGR of 15% to Rs 1,099 mn in FY13.

Revenue growth driven by

1. **Higher availability of crude piperazine**
2. **Freed capacity from bottlenecking**

Figure 17: Revenue - expect 15% CAGR in next two years



Source: Company, CRISIL Research

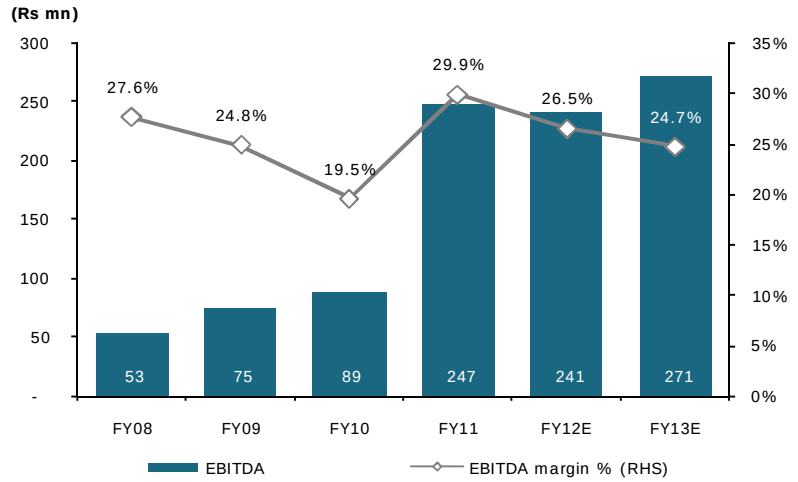
Margins expected to decline by ~500 bps though would remain healthy in mid 20s

Diamines' EBITDA margins have been volatile - ranging between 42.5% in FY07 and 19.5% in FY10 - primarily due to fluctuating raw material costs, product mix and sales realisations. In FY11, margins improved to 30% due to increase in piperazine and EDA prices. Going ahead, we believe that EBITDA margins will likely decline to 24.7% in FY13. The key factors baked into our estimates are increasing raw material prices, low upside in piperazine prices, and a decline in EDA prices because of an economic slowdown.

EBITDA margin pressure from:

1. **Increasing raw material prices**
2. **Low upside in piperazine price**
3. **Decline in EDA prices**

Figure 18: EBITDA margins to remain healthy in the mid 20s



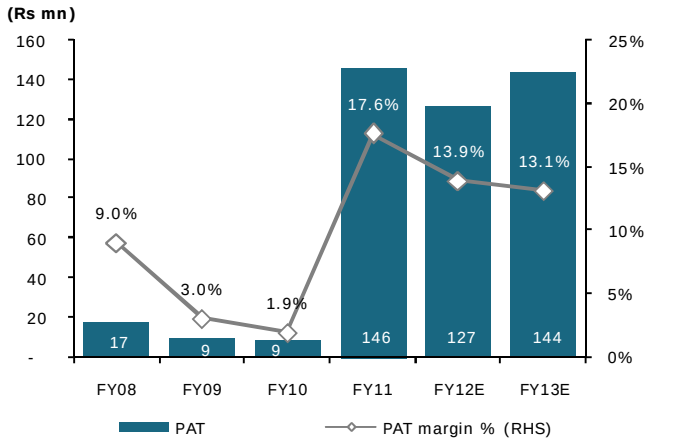
Source: Company, CRISIL Research

PAT to remain flat

PAT is expected to remain flat at Rs 144 mn in FY13 compared to RS 146 mn in FY11. Though revenues are expected to grow at a CAGR of 15%, any decline in margins would be a drag. Also higher tax estimates of 34% as compared to 28% in FY11 will result in lower profitability. Taxes were lower last year because of one-time tax benefit of Rs 60 mn.

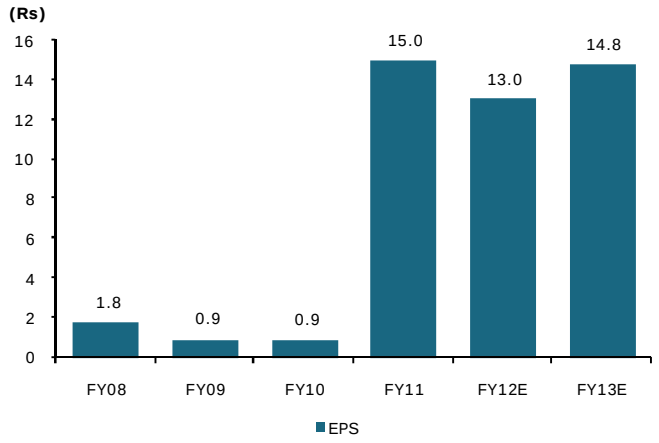
Despite revenue growth, PAT is expected to remain flat due to decline in margins

Figure 19: PAT margins to decline to ~13%...



Source: Company, CRISIL Research

Figure 20: ... and EPS to Rs 14.8 in FY13



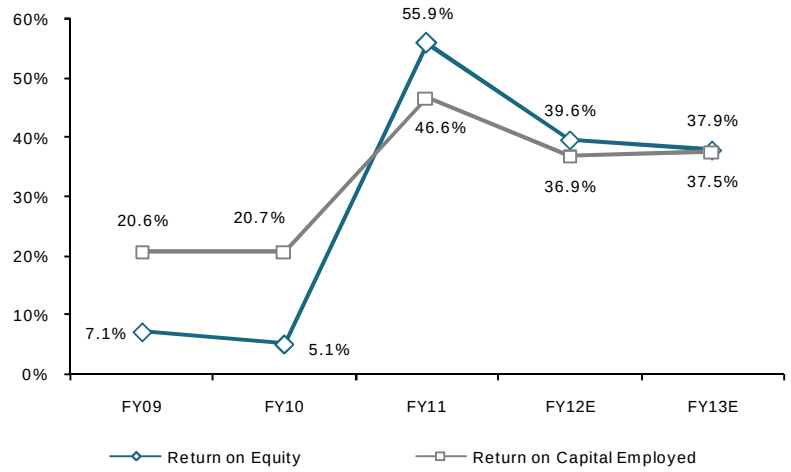
Source: Company, CRISIL Research

Expect return ratios to moderate but remain healthy

In FY11, Diamines' RoE improved significantly to 56% from 5% in FY10 based on better sales realisation and production growth. Going ahead, we believe that RoE will likely decline close to ~39.6% in FY13 because of margins contraction. Simultaneously, the company exhibited a healthy RoCE ratio of 47%, which we expect to decline to 36.9% and 37.5% in FY12 and FY13 respectively.

Return ratios continue to look attractive. Better than selected peer group.

Figure 21: RoCE and RoE to decline, but still to look attractive



Source: Company, CRISIL Research

Recent quarter Q1FY12 performance

Diamines' revenue increased ~53% y-o-y and EBITDA margins expanded to 30%. It was largely driven by continued strong demand for PIP-A with its corresponding price increasing to Rs 475 from Rs 329 in Q1FY11. The company procured around 560 tonnes of PIP-68% to cater to the increasing demand for PIP-A, compared to 253 tonnes in same quarter last year.

Table 5: Performance in recent quarters

Diamines and Chemicals (Rs mn)	Q1FY12	Q4FY11	Q1FY11	q-o-q (%)	y-o-y (%)
Net sales	241	238	158	1.0	52.9
Raw materials cost	118	131	76	(9.8)	54.6
Raw materials cost (% of net sales)	49.0%	54.9%	48.5%	-589bps	53bps
EBITDA	71	54	46	33.0	56.5
EBITDA margin	29.6%	22.5%	28.9%	711bps	68bps
Adj PAT	42	38	23	9.7	79.5
Adj PAT margin	17.4%	16.0%	14.8%	138bps	258bps
Adj EPS (Rs)	4.3	3.9	2.4	9.7	79.5

Source: Company, CRISIL Research

Management Overview

CRISIL's fundamental grading methodology includes a broad assessment of management quality, apart from other key factors such as industry and business prospects, and financial performance.

Experienced management

Diamines has an experienced management headed by Mr Yogesh M. Kothari as the chairman and Mr Amit M. Mehta as the vice chairman. Mr Yogesh M. Kothari is also the chairman and managing director of Alkyl Amines Chemicals Ltd. Mr Amit M. Mehta is also the managing director of S Amit and Co and its other group companies, which provides products and solutions in chemicals and intermediates. Mr Kirat Patel has been long associated with the company as a director on the board of the company. Together, they bring with themselves three decades of business knowledge and domain expertise in the amines business. They were the critical cogs in the decision process to take over the company when it filed for bankruptcy and to turn it around from a BIFR sick unit to a profit making unit. The company also benefits from management's established business networking, built over a period of three decades.

Successfully turned around Diamines

The promoter group in conjunction with the management has successfully turned around the company from a sick unit to a highly profitable unit. The promoters were quick to identify what went wrong with the company, identify a new product market and efficiently execute the strategies to increase profitability. The management, having removed all pending liabilities, identified non-piperazine ethyleneamines as the growth driver and currently shifted its focus to revamp the EDC process.

Professional set up oversee daily operations

Diamines' daily operations are handled by an executive management team with a strong domain expertise in chemical engineering. Mr Girish R. Satarkar heads the company as the CEO and executive director. He joined the company in October 2008 and brings with himself 23 years of experience in sales and marketing in the chemical industry. Mr D M Nagarkar, who has 37 years of experience, heads sales and marketing.

Diamenes has a professional set up and management who take care of day-to-day operations

Professional set-up offsets risk from inadequate succession planning

Our interaction with the promoters indicated that the professional management unit under Mr Girish Satarkar, in consonance with the board of directors, will be the major decision makers. The promoter group consisting of Mr Yogesh and Mr Amit Mehta, and the Alkyl Amines technology team will be available to guide the management with technology and strategic decision making. As a result, we believe that the presence of a professional management team and an established board hedges the risk arising from an inadequate succession planning from the promoter side.

Corporate Governance

CRISIL's fundamental grading methodology includes a broad assessment of corporate governance and management quality, apart from other key factors such as industry and business prospects, and financial performance. In this context, CRISIL Research analyses the shareholding structure, board composition, typical board processes, disclosure standards and related-party transactions. Any qualifications by regulators or auditors also serve as useful inputs while assessing a company's corporate governance.

We believe overall corporate governance at Diamines is good supported by fairly strong board practices and an independent board. We found that most of the independent directors exhibit expertise in diverse domain such as chemical engineering, finance and marketing.

Corporate governance practices are good

Board composition

Diamines' board comprises 10 members, of whom five are independent directors, which is more than the requirement under Clause 49 of SEBI's listing guidelines. The directors have strong industry experience and are highly qualified. The board is headed by two promoter groups, Mr Yogesh M. Kothari, promoter-cum-chairman of the company and Mr Amit M. Mehta, vice-chairman of the board. Mr Yogesh Kothari also has directorship in four other public companies including Alkyl Amines, a group company of Diamines. The board has met five times last year.

Board's processes

The company's quality of disclosure can be considered good judged by the level of information and details furnished in the annual report, websites and their forthcomingness in discussing the business and other important factors during our interactions. The company has all the necessary committees – audit, remuneration, nomination and investor grievance, in place to support the corporate governance practices. The audit committee is a three member team, which is chaired by a non-executive independent director, Mr Rajendra Chabra. The committee met four times last year and was consistently attended by all the members.

Board oversees the important decisions of the company

Based on our interaction with the promoters, we believe that most of the important decisions of the company are taken by the CEO in consonance with the board of directors. Through our interaction with independent directors, we found that they were well acquainted with the company's business. Additionally, the board ensures that the related transactions between group companies are limited and are at arm's length.

Board closely oversees the functioning of the company

Valuation Grade: 5/5

We have used the discounted cash flow (DCF) method to value Diamines and arrived at a fair value of Rs 98 per share. The stock is currently trading at Rs 70 per share, which implies a PE of 4.7x our FY13 EPS estimate of Rs 14.8. Our fair value of Rs 98 implies a PE of 7.5x and 6.6x our FY12 and FY13 EPS estimate respectively, which appears justified based on current multiples of the industry peers. Consequently, we initiate coverage on Diamines with a valuation grade of **5/5**, indicating that the current market price has a **strong upside** to the fair value.

We assign a fair value of Rs 98 per share to Diamines and initiate coverage with a valuation grade of 5/5

Key DCF assumptions

We have considered the discounted value of the firm's estimated free cash flow from FY12 to FY25.

The fair value implies P/E of 7.5x our FY12 EPS of Rs 13.0 and 6.6x our FY13 EPS of Rs 14.8

Terminal year assumptions:

1. Growth rate of 3%
2. Capital expenditure of ~Rs 110 mn, 2.5% of sales
3. Depreciation of ~Rs 90 mn, 2.1% of sales.

WACC computation

	FY12-25	Terminal value
Cost of equity	19.6%	19.6%
Cost of debt (post tax)	9.0%	9.0%
WACC	**14.7%**	**14.5%**
Terminal growth rate		3%

Some of its selected peer trade at an average PE of 7.9x at FY12 EPS

Sensitivity analysis to terminal WACC and terminal growth rate

Terminal WACC \ Terminal growth rate	1%	2%	3%	4%	5%
12.5%	117	127	140	155	174
13.5%	99	107	116	127	140
14.5%	85	91	98	106	116
15.5%	74	79	84	90	97
16.5%	65	69	73	77	83

Source: CRISIL Research

Factors that can impact the fair value

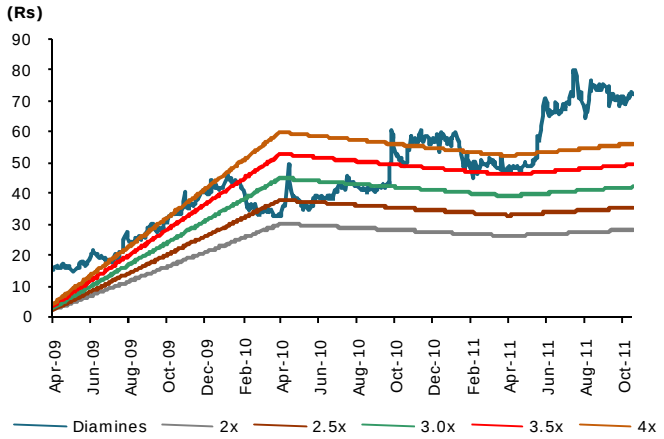
Upside

- Any potential increase to our expected product prices will have a meaningful impact on our estimates.
- Earlier-than-expected completion of de-bottlenecking exercise and ramp up in operations.

Downside

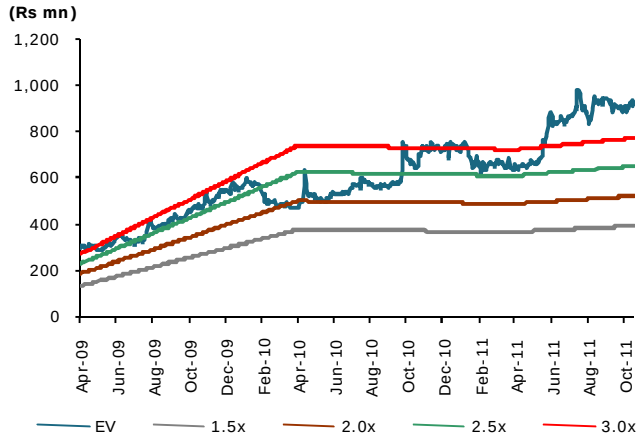
- Any potential decline to our expected product prices will have a meaningful impact on our estimates.
- Any delay to our expected timing of de-bottlenecking exercise and ramp up in operations.
- Higher-than-expected slowdown in demand because of macroeconomic environment.

One-year forward P/E band



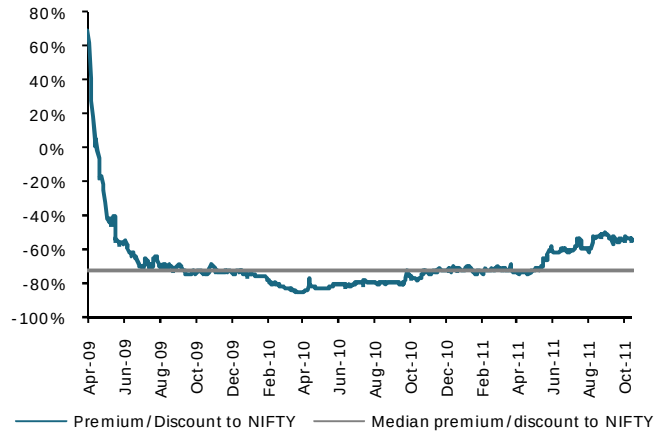
Source: NSE, BSE, Company, CRISIL Research

One-year forward EV/EBITDA band



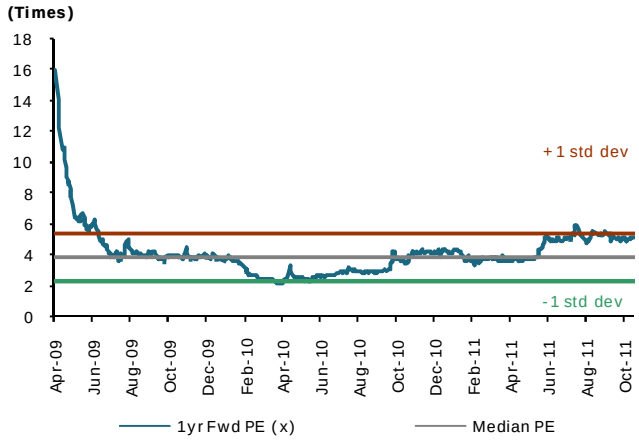
Source: NSE, BSE, Company, CRISIL Research

P/E – premium / discount to NIFTY



Source: NSE, BSE, Company, CRISIL Research

P/E movement



Source: NSE, BSE, Company, CRISIL Research

Trading at a significant discount to selected peers

The stock currently trades at a PE of 4.7x FY11 EPS, which suggests ~55% discount to average multiple, of 9.9x, of its selected peers such as Alkyl Amines, Omkar Speciality Chemicals, Sudarshan Chemicals, Responsive Industries, Vivimed Labs and others. Most of the selected peers are not direct competitors by product; however, they have nearly similar business models and macroeconomic cycles. Our fair value of Rs 98 implies a PE multiple of 7.5x our FY12 EPS, which suggests a discount of 5% to peers average PE of ~7.9x.

Peer comparison

Company	source	CMP	M. Cap	EPS			EPS CAGR	P/E			RoE		
		Rs	Rs mn	FY10	FY11	FY12E	FY10-12	FY10	FY11	FY12E	FY10	FY11	FY12E
Diamines & Chemicals	**C**	**72.0**	**699.0**	**0.9**	**15.0**	**13.0**	**281%**	**80.0**	**4.8**	**5.5**	**5.1**	**55.9**	**36.9**
Sudarshan Chemicals	C	725.0	5,018.6	59.4	56.2	73.8	11%	12.2	12.9	9.8	34.9	25.3	26.8
Omkar Speciality	C	67.4	1,322.9	4.5	5.2	8.5	38%	15.1	13.0	7.9	37.6	18.8	16.9
Responsive Industries	C	108.6	28,401.6	2.5	3.5	3.7	23%	43.7	30.7	18.0	23.9	21.8	16.9
Dhanuka	C	101.0	5,052.0	7.9	10.2	12.0	23%	12.8	9.9	5.6	43.9	38.1	31.0
Vivimed Labs	I	256.3	2,603.5	31.9	48.0	NA	NA	8.0	5.3	NA	25.1	28.6	NA
Alkyl Amines	I	89.9	916.5	11.5	13.7	NA	NA	7.8	6.6	NA	16.8	17.5	NA
Balaji Amines	I	35.3	1,156.2	5.1	8.2	NA	NA	7.0	4.3	NA	25.9	26.5	NA
Camlin Fine	I	97.3	905.0	1.4	8.6	NA	NA	69.7	11.2	NA	4.2	20.4	NA
Median								**12.8**	**9.9**	**7.9**	**25.1**	**25.3**	**26.8**
Average								**28.2**	**11.8**	**9.3**	**24.1**	**28.1**	**26.2**

Updated as on 20/09/11; C=CRISIL Estimates; I= Industry Estimates

Company	source	SALES			CAGR	EBITDA			EBITDA Margins			PAT Margins		
		FY10	FY11	FY12E	FY10-12	FY10	FY11	FY12E	FY10	FY11	FY12E	FY10	FY11	FY12E
Diamines & Chemicals	**C**	**456**	**828**	**909**	**41%**	**89**	**247**	**241**	**19.5%**	**29.9%**	**26.5%**	**1.9%**	**17.6%**	**13.9%**
Sudarshan Chemicals	C	5,942	7,252	7,955	16%	827	883	1,112	13.9%	12.2%	14.0%	6.9%	5.4%	6.3%
Omkar Speciality	C	682	1,066	1,630	55%	129	215	336	19.0%	20.1%	20.6%	7.6%	9.5%	10.0%
Responsive Industries	C	8,407	11,882	15,640	36%	1,301	1,912	2,637	15.5%	16.1%	16.9%	7.2%	7.8%	6.3%
Dhanuka	C	4,085	4,862	5,753	19%	586	711	853	14.4%	14.6%	14.8%	8.9%	10.5%	10.4%
Vivimed Labs	I	3,435	4,160	NA	NA	635	850	NA	18.5%	20.4%	NA	9.0%	11.7%	NA
Alkyl Amines	I	2,150	2,327	NA	NA	352	325	NA	16.4%	14.0%	NA	5.5%	6.0%	NA
Balaji Amines	I	2,619	3,571	NA	NA	474	629	NA	18.1%	17.6%	NA	7.8%	7.4%	NA
Camlin Fine	I	1,403	1,676	NA	NA	127	156	NA	9.1%	9.3%	NA	0.9%	4.6%	NA
Median									**16.4%**	**16.1%**	**16.9%**	**7.2%**	**7.8%**	**10.0%**
Average									**16.0%**	**17.1%**	**18.6%**	**6.2%**	**8.9%**	**9.4%**

Updated as on 17/10/11; C=CRISIL Estimates; I= Industry Estimates

Diamines and Chemicals Ltd

Company Overview

Diamines is the leading manufacturer and supplier of ethyleneamines, a family of speciality chemicals, and the only domestic player to have presence in the ethyleneamines market. The company manufactures a range of ethylene amines (EAs) including EDA, PIP, DETA, TETA, and other derivatives which find their use in the market both as end products and as raw material. The company derives 98% of its revenue from production and sale of ethyleneamines and rest of it comes from the sale of wind energy. The company has three wind mills: one in Gujarat commissioned in March 2005, and two in Maharashtra commissioned in March 2006. Each of the two wind-mills in Maharashtra has a generation capacity of 1.25MW. The company has a power purchase agreement with Maharashtra State Electricity Board. The idea behind putting up the wind mills in Maharashtra was to take the benefit of 100% taxation scheme for clean energy.

Business segment	Contribution to revenues		
	FY09	FY10	FY11
Speciality Chemicals	95.3%	95.8%	98.1%
Power generation	4.7%	4.2%	1.9%

Company history

Diamines and Chemicals was incorporated in 1979 by the promoters of Bharat Vijay Textile Ltd to manufacture ethyleneamines in India. It was part of the Sintex Industries Group. The company collaborated with the National Chemicals Laboratory, a Government of India national laboratory, to develop the EDC process technology to manufacture various ethyleneamines. By 1982, it started manufacturing 3,000 tonnes of ethyleneamines in its Vadodara plant. However, post liberalization in 1990, the protection offered against foreign competition by way of high import tariffs was withdrawn, and the company failed to compete with imports as it failed to scale up the productivity value of its plants or subsequent funding. The company applied to the Board for Financial and Industrial Reconstruction (BIFR) in 1998, and was subsequently taken over by Mr Yogesh Kothari (promoter of Alkyl Amines & Chemicals Ltd) and Mr Amit Mehta in the 1999. Given their operational and marketing experience, the company started producing piperazine and other derivatives and was subsequently taken off the BIFR sick unit list in 2004. In 2005, the company re-focused on its old EDC technology, spent around $2 mn in FY09 to revamp its facilities and bring up the productivity value of its plants to meet global standards.

Diamines and Chemicals Ltd

Milestones

1976	Incorporated as Diamines & Chemicals Ltd
1982	Company commenced production in Vadodara, Gujarat
1998	Referred to the Board for Industrial and Financial Reconstruction (BIFR)
1999	Acquired by Alkyl Amines Chemicals Ltd in partnership with S. Amit Group.
2000	Added two more products to its product range viz. Piperazine Anhydrous and Piperazine 68% (PIP- 68%)
2004	Came out of the BIFR sick unit status
2009	Invested ~ $2 million in revamping its facilities to incorporate new technology
2011	Diversified into manufacturing EDA

Manufacturing facility

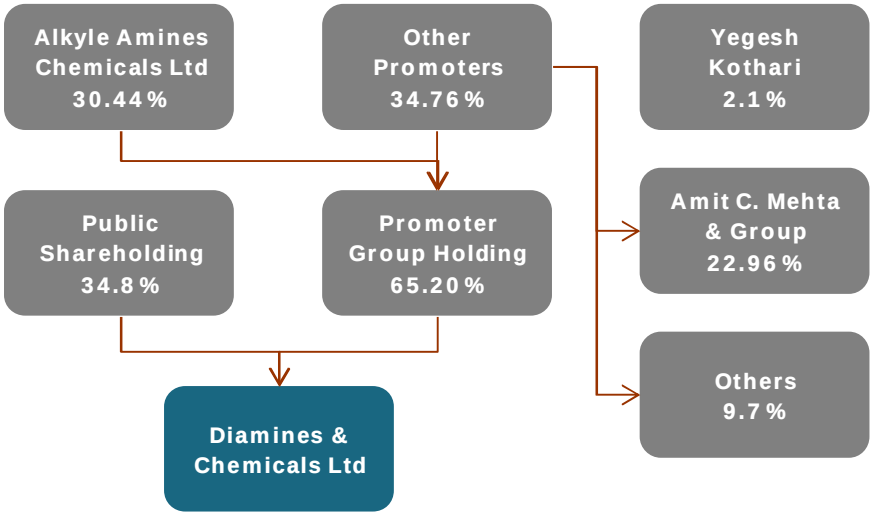
The company's current plant is located in Vadodara, Gujarat and produces around 600 tonnes of ethyleneamines, including EDA and higher ethyleneamines such as DETA through the EDA route and piperazine (PIP) through the CPA route.

Ethylene-diamines / amines & derivatives	Installed Capacity (MT)	Actual Production (MT)	
		FY2011	FY2010
Through EDA Plant	2,600	584	68
Through CPA Plant	2,900	1,970	1,901
Total		**2,554**	**1,970**

Future plans:

The plant is currently operating at suboptimal levels. The current set-up does not allow Diamines to scale up production through the EDA route. For this, the company is planning to de-bottleneck the current set-up, which will increase the current production capacity to 3,000 tonnes through the EDA and CPA routes.

Shareholding structure



Source: Compan, CRISIL Research

Annexure 1: Details of global capacity expansion

Global capacity is expected to expand to around 146,000 tonne between 2009 and 2014. Most of this capacity expansion is being made up to address the growing consumption in China. According to industry sources, around 73,000 tonne of new capacity has already come on-stream, while the remaining 80,000 tonne will likely come on-stream by 2012, in China. However, despite this new production capacity coming on-stream, expected demand supply equation suggests that China will still have a supply deficit of around 11,000 tonnes by 2014.

Global ethyleneamines capacity expansion- current and proposed

	Global ethyleneamines production capacity up to 2009										
	US	Western Europe	CSA	CEE	Middle-east	Africa	China	Japan	India	Other Asia	Total
Dow Chemicals	40,000	62,000	-	-	-	-	-	-	-	-	102,000
Akzo Nobel	-	95,000	-	-	-	-	-	-	-	-	95,000
Hunstmen	80,000	13,000	-	-	-	-	-	-	-	-	93,000
Tosoh	-	-	-	-	-	-	-	53,000	-	-	53,000
Delamine	-	45,000	-	-	-	-	-	-	-	-	45,000
BASF	45,000	-	-	-	-	-	-	-	-	-	45,000
Other	-	-	-	10,000	-	-	-	-	3,000	-	13,000
Total capacity	165,000	215,000	-	10,000	-	-	-	53,000	3,000	-	446,000

	Global ethyleneamines capacity proposed expansion up to 2012										
	US	Western Europe	CSA	CEE	Middle-east	Africa	China	Japan	India	Other Asia	Total
Dow Chemicals	-	-	-	-	-	-	-	-	-	-	-
Akzo Nobel	-	-	-	-	-	-	35,000	-	-	-	35,000
Hunstmen	-	-	-	-	27,000	-	-	-	-	-	27,000
Tosoh	-	-	-	-	-	-	-	36,000	-	-	36,000
Delamine	-	10,000	-	-	-	-	-	-	-	-	10,000
BASF	-	-	-	-	-	-	35,000	-	-	-	35,000
Other	-	-	-	-	-	-	20,000	-	3,000	-	23,000
Total capacity	-	10,000	-	-	27,000	-	90,000	36,000	3,000	-	166,000

	Global ethyleneamines capacity with proposed expansion in 2012										
	US	Western Europe	CSA	CEE	Middle-east	Africa	China	Japan	India	Other Asia	Total
Dow Chemicals	40,000	62,000	-	-	-	-	-	-	-	-	102,000
Akzo Nobel	-	95,000	-	-	-	-	35,000	-	-	-	130,000
Hunstmen	80,000	13,000	-	-	27,000	-	-	-	-	-	120,000
Tosoh	-	-	-	-	-	-	-	89,000	-	-	89,000
Delamine	-	55,000	-	-	-	-	-	-	-	-	55,000
BASF	45,000	-	-	-	-	-	35,000	-	-	-	80,000
Other	-	-	-	10,000	-	-	20,000	-	6,000	-	36,000
Total capacity	165,000	225,000	-	10,000	27,000	-	90,000	89,000	6,000	-	612,000

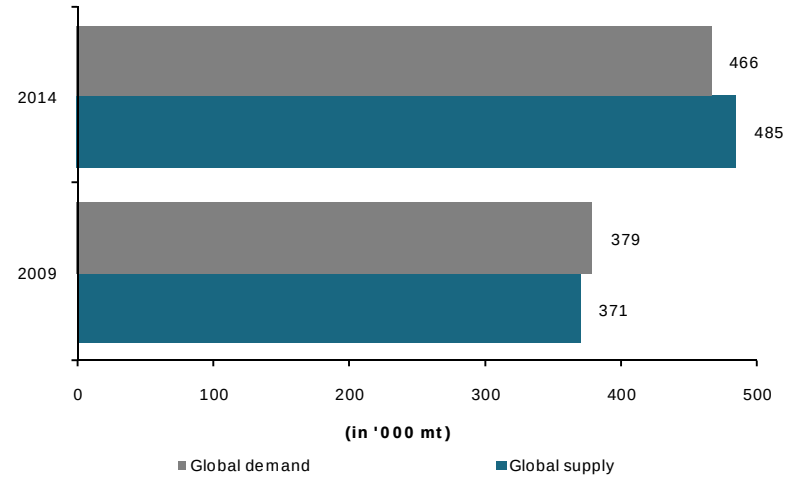
CEE: Central & Eastern Europe; CSA: Central & South America

Source: Company, CRISIL Research

Proposed capacity appears sufficient to serve global demand for next three to four years

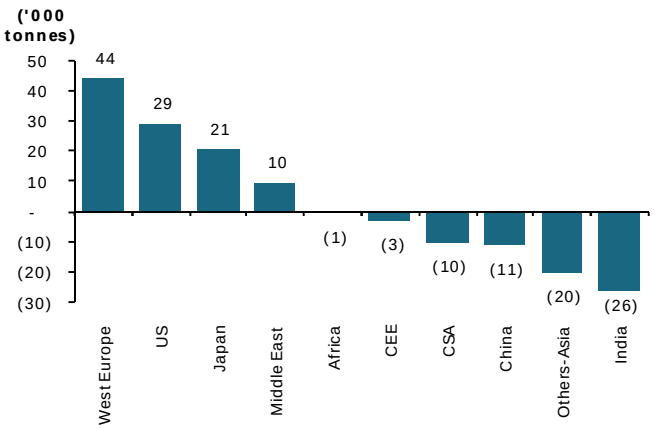
We believe that the ethyleneamines global capacity expected in 2012 will be enough to serve the global demand in the next three to four years. We believe the global proposed capacity of 612,000 tonnes, coming on-stream in 2012, appears well poised to serve the global demand for ~470,000 tonnes in 2014.

Global supply-demand gap of ethyleneamines



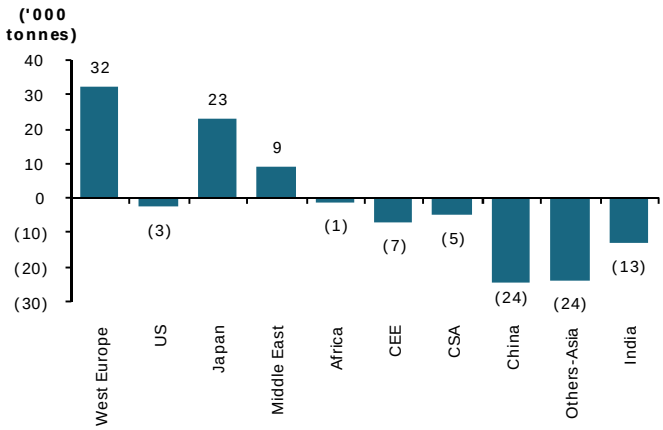
Source: Company, CRISIL Research

Supply demand gap in EDA market in 2014



Source: Company, CRISIL Research

Supply demand gap in higher ethyleneamines in 2014



Source: Company, CRISIL Research

Annexure 2: Key glossary

Glossary	
AEEA	One of the higher derivatives of ethyleneamines family of specialty chemicals.
Aminoethylpiperazine (AEP)	One of the higher derivatives of ethyleneamines family of specialty chemicals.
Analgesics	An **analgesic** is a member of group of drugs used to relieve pain.
Anthelmintics	**Anthelmintics** or antihelminthics are drugs that expel parasitic worms (helminthes) from the body
Anti-depressants	An **antidepressant** is a psychiatric medication used to alleviate mood disorders, such as major depression and dysthymia
Chelates/Chelating agents	A heterocyclic compound having a metal ion attached by coordinate bonds to at least two nonmetal ions. Example:
Ciprofloxacin	A widely used anti-bacterial drug
Diethylenetetraamines (DETA)	One of the higher derivatives of ethyleneamines family of specialty chemicals.
Dithiocarbamate fungicides	These are widely used fungicides across the globe. These are multisite contact fungicides that work by protecting the plant surface to prevent infection.
Ethyleneamines	A series of homologous polyamines specialty chemicals that are widely used in organic synthesis, drugs, dyes, pesticides, resins, and others.
Ethylenediamine (EDA)	One of the major derivatives of ethyleneamines family of specialty chemicals. It constitutes the highest component vs. other derivatives. It finds usage in wide applications ranging from fungicides, polyamide resins, chemical intermediates and others
Ethylene dichloride (EDA) process	A manufacturing process to manufacture ethyleneamines. It uses EDC and ammonia as major raw materials.
Fungicides	**Fungicides** are chemical compounds or biological organisms used to kill or inhibit fungi or fungal spores
Lube Oil	**Lube oil** is lubricating oil that is used in various end industry and consumer usages.
Piperazine (PIP)	One of the higher derivatives of ethyleneamines family of specialty chemicals. Used in pharmaceuticals, polyamide resins, Chelates and others
Polyamide resin	**Polyamide resin** have various usages including prevention from the destructive effects of water, fungi and UV radiation on exterior wood, used as binders in printing inks
Polyamines mixture	A ethyleneamine mixture that consists of different ethyleneamine derivatives.
Reductive Amination (RA) process	A manufacturing process to manufacture ethyleneamines. It uses monoethanolamine (MEA) and ammonia as major raw materials.
Surfactants	Surfactants are chemical compounds that lower the surface tension of a liquid or that between a liquid and a solid. Example detergents and home cleaning agents
Triethylenetetramine (TETA)	One of the higher derivatives of ethyleneamines family of specialty chemicals.
Urethanes	One of the chemical products

Annexure 3: Financials

Income statement

(Rs mn)	FY09	FY10	FY11	FY12E	FY13E
Operating income	**303**	**456**	**828**	**909**	**1,099**
EBITDA	**75**	**89**	**247**	**241**	**271**
EBITDA margin	**24.8%**	**19.5%**	**29.9%**	**26.5%**	**24.7%**
Depreciation	14	16	19	21	23
EBIT	**61**	**73**	**228**	**220**	**249**
Interest	45	14	29	32	33
Operating PBT	**16**	**59**	**199**	**188**	**216**
Other income	1	1	3	4	5
Exceptional inc/(exp)	4	85	2	-	-
PBT	**21**	**145**	**204**	**192**	**221**
Tax provision	7	51	57	66	77
Minority interest	-	-	-	-	-
PAT (Reported)	**14**	**94**	**147**	**127**	**144**
Less: Exceptionals	4	85	2	-	-
Adjusted PAT	**9**	**9**	**146**	**127**	**144**

Ratios

	FY09	FY10	FY11	FY12E	FY13E
Growth					
Operating income (%)	58.1	50.8	81.4	9.7	21.0
EBITDA (%)	42.2	18.6	177.3	(2.4)	12.5
Adj PAT (%)	(46.8)	(5.0)	1,567.3	(12.9)	13.7
Adj EPS (%)	(46.8)	(5.0)	1,567.3	(12.9)	13.7
Profitability					
EBITDA margin (%)	24.8	19.5	29.9	26.5	24.7
Adj PAT Margin (%)	3.0	1.9	17.6	13.9	13.1
RoE (%)	7.1	5.1	55.9	39.6	37.9
RoCE (%)	20.6	20.7	46.6	36.9	37.5
RoIC (%)	20.1	7.5	41.7	30.1	29.6
Valuations					
Price-earnings (x)	76.0	80.0	4.8	5.5	4.8
Price-book (x)	5.3	3.3	2.2	2.1	1.6
EV/EBITDA (x)	11.2	9.5	3.6	4.0	3.3
EV/Sales (x)	3.0	2.0	1.1	1.1	0.8
Dividend payout ratio (%)	47.8	13.9	26.6	24.9	24.9
Dividend yield (%)	0.9	1.9	5.6	4.5	5.1
B/S ratios					
Inventory days	170	138	90	99	124
Creditors days	249	123	57	61	81
Debtor days	95	72	70	70	70
Working capital days	68	55	63	82	80
Gross asset turnover (x)	0.7	0.9	1.5	1.5	1.6
Net asset turnover (x)	1.3	1.7	2.7	2.6	2.9
Sales/operating assets (x)	1.2	1.6	2.6	2.5	2.8
Current ratio (x)	1.4	1.6	2.3	1.9	1.9
Debt-equity (x)	1.3	0.9	0.9	0.9	0.7
Net debt/equity (x)	1.1	0.7	0.6	0.8	0.5
Interest coverage	1.3	5.2	7.8	6.9	7.6

Per share

	FY09	FY10	FY11	FY12E	FY13E
Adj EPS (Rs)	0.9	0.9	15.0	13.0	14.8
CEPS	2.4	2.6	16.9	15.2	17.1
Book value	13.6	21.6	32.0	33.9	44.3
Dividend (Rs)	0.7	1.3	4.0	3.2	3.7
Actual o/s shares (mn)	9.7	9.7	9.7	9.7	9.7

Balance Sheet

(Rs mn)	FY09	FY10	FY11	FY12E	FY13E
Liabilities					
Equity share capital	65	65	65	97	97
Reserves	67	145	245	233	334
Minorities	-	-	-	-	-
Net worth	**132**	**210**	**311**	**330**	**431**
Convertible debt	-	-	-	-	-
Other debt	175	187	272	282	282
Total debt	**175**	**187**	**272**	**282**	**282**
Deferred tax liability (net)	32	38	33	28	23
Total liabilities	**339**	**435**	**616**	**641**	**736**
Assets					
Net fixed assets	232	300	312	382	374
Capital WIP	35	4	21	21	21
Total fixed assets	**267**	**304**	**333**	**402**	**395**
Investments	**1**	**1**	**1**	**1**	**1**
Current assets					
Inventory	102	133	138	174	271
Sundry debtors	83	93	171	188	227
Loans and advances	31	102	108	118	143
Cash & bank balance	29	35	90	24	74
Marketable securities	-	-	-	-	-
Total current assets	**245**	**363**	**507**	**504**	**715**
Total current liabilities	**174**	**233**	**225**	**266**	**374**
Net current assets	**71**	**130**	**282**	**237**	**341**
Intangibles / Misc. expenditure	**-**	**-**	**-**	**-**	**-**
Total assets	**339**	**435**	**616**	**641**	**736**

Cash flow

(Rs mn)	FY09	FY10	FY11	FY12E	FY13E
Pre-tax profit	17	60	202	192	221
Total tax paid	(9)	(45)	(62)	(71)	(82)
Depreciation	14	16	19	21	23
Working capital changes	30	(53)	(98)	(21)	(53)
Net cash from operations	**52**	**(21)**	**61**	**121**	**108**
Cash from investments					
Capital expenditure	(43)	(54)	(48)	(90)	(15)
Investments and others	-	-	-	-	-
Net cash from investments	**(43)**	**(54)**	**(48)**	**(90)**	**(15)**
Cash from financing					
Equity raised/(repaid)	-	-	-	-	-
Debt raised/(repaid)	16	12	86	10	-
Dividend (incl. tax)	(8)	(15)	(46)	(38)	(43)
Others (incl extraordinaries)	4	85	0	(69)	(0)
Net cash from financing	**13**	**81**	**41**	**(97)**	**(43)**
Change in cash position	21	6	54	(66)	50
Closing cash	29	35	90	24	74

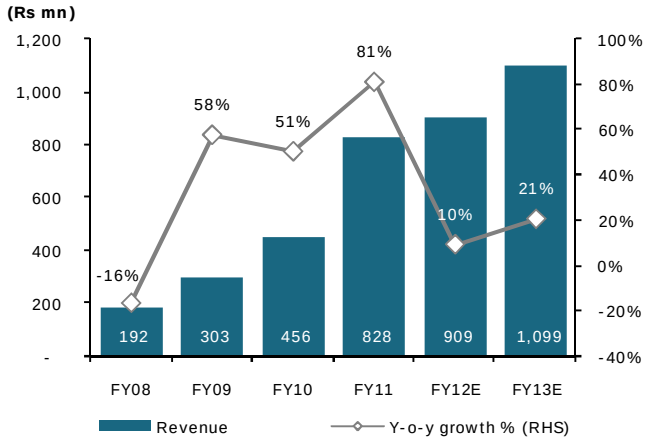
Quarterly financials

(Rs mn)	Q1FY11	Q2FY11	Q3FY11	Q4FY11	Q1FY12
Net Sales	**158**	**215**	**219**	**238**	**241**
Change (q-o-q)		36%	2%	9%	1%
EBITDA	**46**	**93**	**55**	**54**	**71**
Change (q-o-q)		104%	-41%	-2%	33%
EBITDA margin	**29%**	**43%**	**25%**	**22%**	**30%**
PAT	23	58	27	38	42
Adj PAT	**23**	**58**	**27**	**38**	**42**
Change (q-o-q)		150%	-54%	41%	10%
Adj PAT margin	**15%**	**27%**	**12%**	**16%**	**17%**
Adj EPS	**2.4**	**6.0**	**2.8**	**3.9**	**4.3**

Source: CRISIL Research

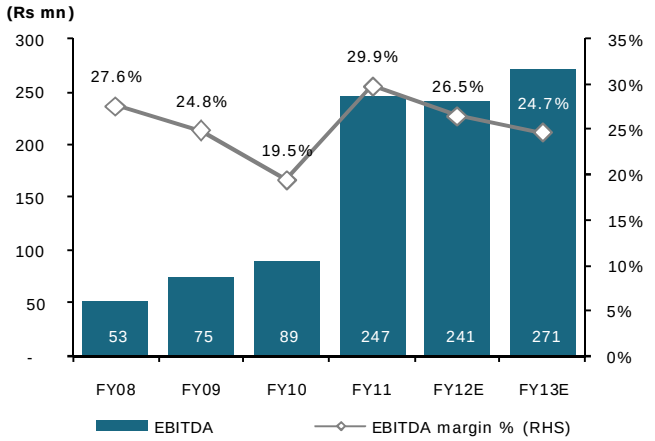
Focus Charts

Revenues and growth trend



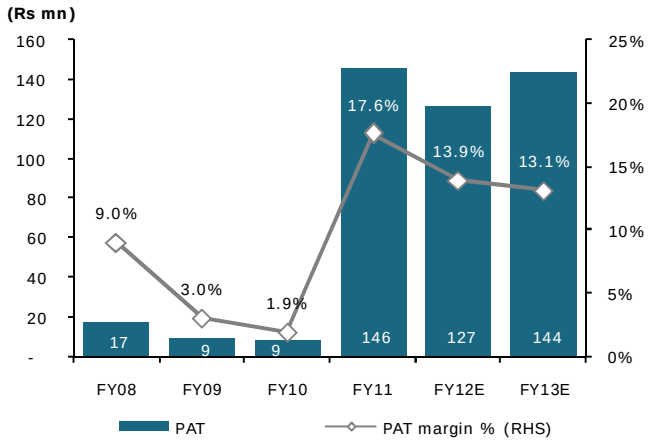
Source: Company, CRISIL Research

EBITDA and EBITDA margin trend



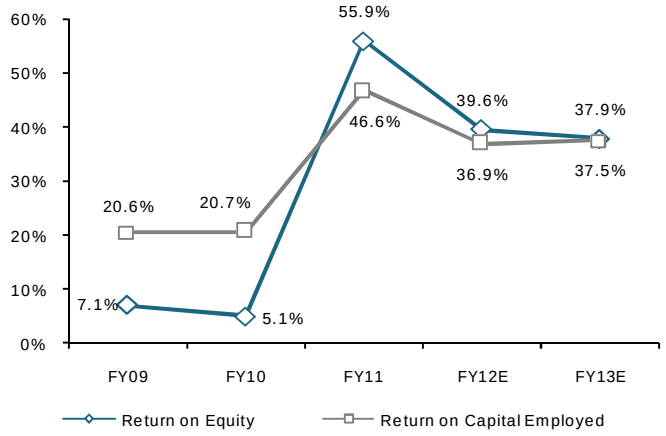
Source: Company, CRISIL Research

PAT and PAT margin trend



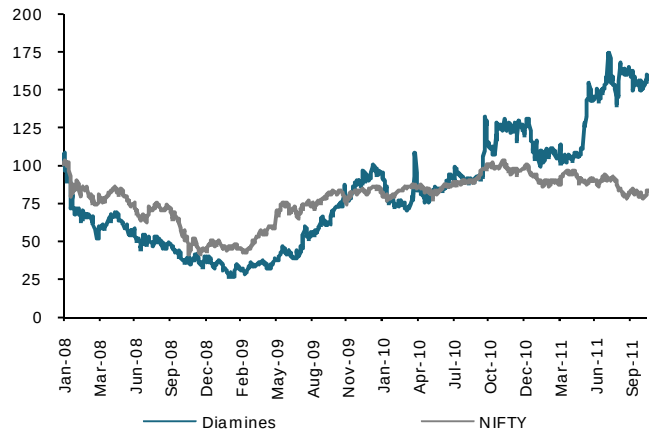
Source: Company, CRISIL Research

Return ratios



Source: Company, CRISIL Research

Stock performance vs. Nifty



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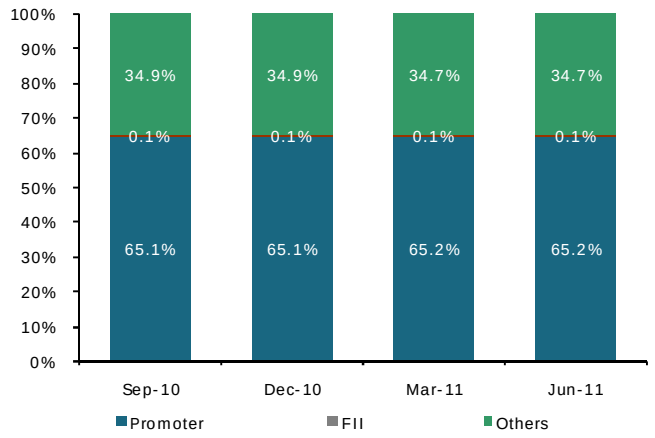
Source: Company, CRISIL Research

Shareholding pattern over the quarters



Source: Company, CRISIL Research

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