Multi-Company

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Potash Prospects

Today's Pain, Tomorrow's Gain

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- **H1 hangover** — We are nearing the end of a substantial de-stock. After the boom in 2008 and the fall in most commodity prices, farmers and distributors are buying as little as possible until they have better price clarity. The latter will come with the settling of the annual Chinese and Indian contracts, but this will not happen in time to save Q109 (and probably Q209) results for potash producers. We are sharply reducing our 2009 EPS estimates for K+S and Israel Chemicals (ICL).

- **Producers matching supply to demand** — As happened in 2006, however, production cuts have been announced across the major industry participants, in total amounting to c.9% global capacity. The mid-term fundamentals for potash demand are good and the industry is in strong financial shape. We do not anticipate producers reducing prices materially. We forecast an average potash price of $650/T in FY09, falling to $600/T in 2010.

- **Demand will return** — We are positive on the mid-term outlook for the agricultural economy. Food security remains high on political agendas, especially in developing regions. China, India and Brazil will continue to increase potash application levels in order to maximise yields (application levels in these countries are roughly half internationally recommended levels). 2009 will be tough, but we expect returns to remain above average in the potash industry.

- **K+S price target cut to €50, rating Buy/High Risk** — Over 90% of K+S earnings are generated from potash. Production cuts and demand weakness make for a tough H109E. We advise buying on weakness, given the strength of the mid-term outlook.

- **Downgrade Israel Chemicals to Hold/High Risk; $30 target price** — Only 60% of ICL's earnings are generated from potash. The remainder are from Phosphate Fertilizers and Industrial Specialties, which face poorer mid-term prospects. Due to its lower proportion of potash profits and following ICL's recent rally, we are downgrading our rating to Hold/High risk (target price unchanged).

	Rating		Target Price		Current Year Earnings Estimates		Next Year Earnings Estimates	
Ticker	Old	New	Old	New	Old	New	Old	New
ICL.TA	1M	2H	NIS30.00	NIS30.00	US$1.65	US$1.69	US$1.88	US$1.01
SDFG.DE	1M	1H	€105.00	€50.00	€5.92	€5.83	€10.44	€6.03

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

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Not Just Any Commodity, K+S's Commodity

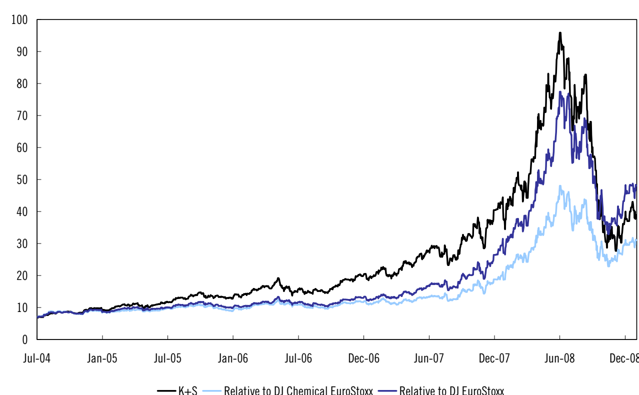
The price of virtually every other commodity has fallen significantly, potash demand has been pretty much non-existent for the last three months and yet the potash price stands resolutely firm at around $800/T. Will it crack? The answer is the key determinant for potash share prices in 2009. Without doubt, in our view, there is some pain to get through. Even if the potash price were $2000/T, it isn't much help if buyers are refusing to buy. We are downgrading our 2009 EPS estimates for K+S and ICL sharply in this report and we expect consensus estimates to follow.

Yet amongst the ever-blackening clouds in so many sectors, there may be a glimmer of light. Potash demand has ground to a halt since October (US volumes down 46% yoy in December) as no one wants to buy just in case the price drops. Yet demand will return - plants need it to grow. Food security remains high on political agendas and at current grain prices 2009 still looks to be a very healthy year for farming profits. The question is not whether demand will return, but what the potash price will be when it does. On this question, there are eight major global potash producers (five of which are consolidated into two selling organisations) who have a track record of consistently putting prices ahead of volumes and an industry that requires investment to bring on stream substantial capacity growth to match demand from developing regions. We cannot be certain, but the balance of risk appears to lie in their favour. Furthermore, so far all have demonstrated their commitment to prices by announcing production cuts amounting to c.10% of global capacity. Our best estimate is that the major Chinese and Indian contracts will be settled sometime in Q2 for roughly the same level as last year (c.$575/T FOB) and that this will set the mark for international pricing for the remainder of the year. On this assumption, we believe the outlook for potash profits remains attractive.

In Europe we advise buying K+S and have a price target of €50. This is a pure potash play with over 90% EBIT generated from the nutrient. On our price forecasts, EPS of €6/share should be sustainable this year despite the fall in volumes, and we would expect a recovery in 2010 as volumes return. The outlook for Israel Chemicals' potash operations is also strong (especially given its low-cost position) but potash accounts for only 60% of ICL's EBIT, and the outlook for the remaining 40% is substantially weaker, in our view. This is the basis for our downgrade to Hold.

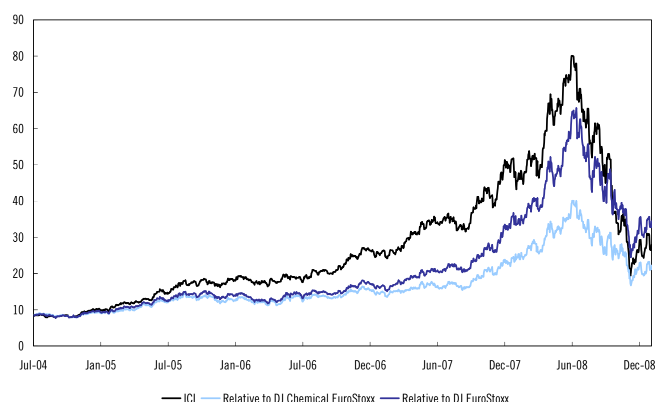
Share Price Charts

Figure 1. K+S – 5-year share price history



Source: DataStream

Figure 2. Israel Chemicals – 5-year share price history



Source: DataStream

Have Things Really Changed?

The picture in the potash industry appears very different to this time last year.

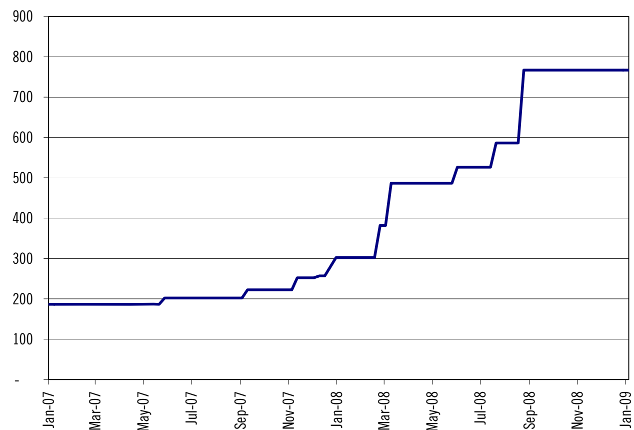
Back in January 2008 grain prices were on an upward trend with global grain inventories at close to record low levels at 16.8% consumption, demand for potash had risen 8% in 2007 as farmers (especially in developing regions) were increasing potash application levels so as to maximise yield, and at c$300/T spot potash prices were close to having doubled in the previous 12 months.

The situation today is a grain price index 30% beneath last year's levels, a somewhat looser grain supply/demand balance (grain stocks to use has risen to 18.9%, which is still low in a historical context but improved from last year), potash demand having fallen 6% in 2008 but a spot potash price more than double last year's level, at $767/T.

Figure 3. Chicago All Grain Price Index, January 2007 to date

Source: Datastream

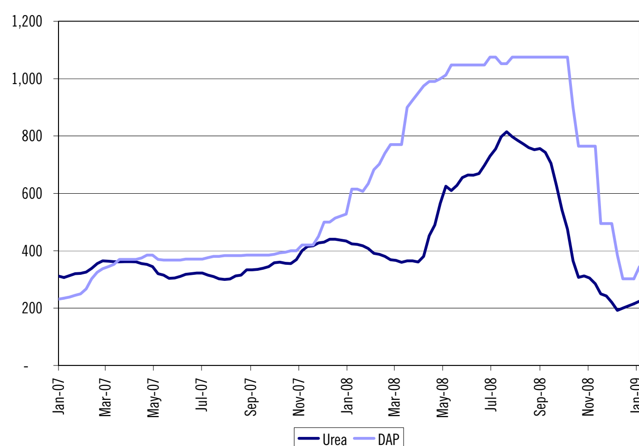
Figure 4. Spot potash price ($/t), January 2007 to date



Source: Citi Investment Research

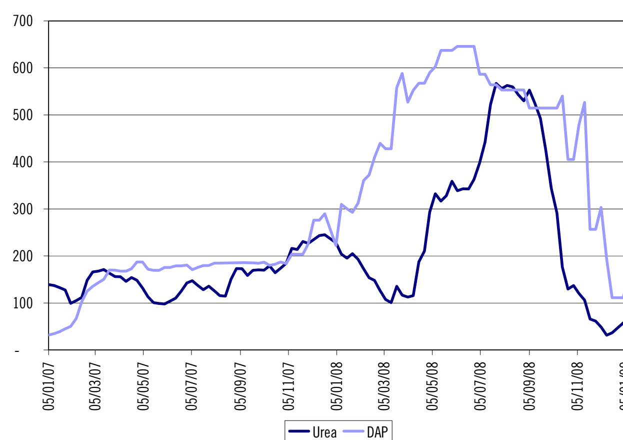
The stability of potash prices over the last six months puts the commodity in stark contrast with the other two fertiliser nutrients, nitrogen and phosphate, and indeed pretty much any other commodity you can think of. Spot urea prices are down 73% from their peak in July 08 and spot DAP (di-ammonium phosphate prices) are down 68% since their peak (although phosphate rock prices are down only 35-40% from their peak).

Figure 5. Spot prices of uUrea and DAP (US$/t), 2007 to date



Source: Citi Investment Research

Figure 6. Spot cash margins of urea and DAP (US$/t), 2007 to date



Source: Citi Investment Research

The key issue is that the farming industry has switched its fertiliser buying strategy from that of stock-building in H108, when raw material rises suggested continued fertiliser price rises, to a massive de-stock in Q408 catalysed by the reversal of energy prices and expectations of price declines.

This U-turn has been the most extreme in Brazil, an agricultural market that tends to swing between boom and bust quickly given the lower level of government subsidies and regulation in the industry and the dependence of farmers on credit. Between January and July 2008, when commodity prices were still rising, Brazilian potash demand rose 23% yoy to 2.4mT. For the FY 2008, however, we now forecast potash demand down 7%, implying a c.30% drop in potash demand between August and December 2008. The picture has been replicated across the globe, albeit to a lesser extent. Whereas in July 2008 demand trends were consistent with an increase in global potash demand of 5% in FY08, the dramatic fall in consumption in H208 now suggests global potash demand fell around 6% in FY08.

There is a big difference, however, with the de-stock happening in the farming industry and that which is happening in the industrial economy. This is that underlying fundamentals in farming remain supportive (low grain stocks, good farming economics), so we have no doubt that demand will return. Also, farming is seasonal. Fertilisers are needed only at the beginning of each planting season – March to April in the Northern Hemisphere, and September-October in the Southern Hemisphere. In normal years, farmers / distributors tend to buy more steadily through the year to ensure supplies – this year this has not happened – however, this does not mean to say that fertilizers will not be needed this year.

So, overall perhaps not that much has changed in the potash industry. Prices remain unchanged from September and demand will return, we believe, quite strongly.

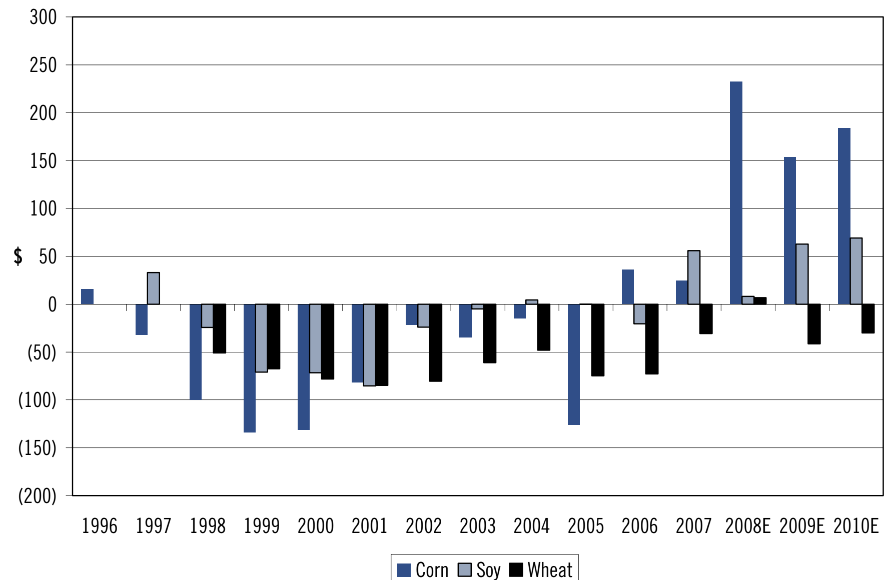
Outlook for Potash Demand in 2009

We forecast stable potash demand in FY09 but expect this to take the shape of yoy declines in H1 with a recovery as we move into H2. European, US and Latin American demand looks set to fall in 2009 due to the current de-stock, but this should be offset by a rise in Chinese and Indian demand.

The first half of the year is dominated by purchases from the northern hemisphere (Europe, the US and China).

- In **Europe** and the **US** the current destock looks set to drive potash demand down as much as 10-15% in H109. Farming economics still look supportive for the US and Europe in 2009 (see Figure 7) but the global economic downturn and substantial commodity price volatility has altered farmers' psychology. Whereas the application of potash was a no-brainer last year, this year the farming community appears to be being more selective as regards how much potash to apply. The soil is being tested for potash levels and, if the nutrient is at a sufficient level, farmers are expected to take potash holidays in 2009 in the hope that prices may have fallen by spring 2010. In Europe, on grassland used for sheep or cattle grazing, we are hearing anecdotally that where farmers would normally apply NPK fertilizers NPKs are being replaced by straight nitrogen fertilizers.

Figure 7. Profit per acre for US corn, soy, wheat production 1996-2010E

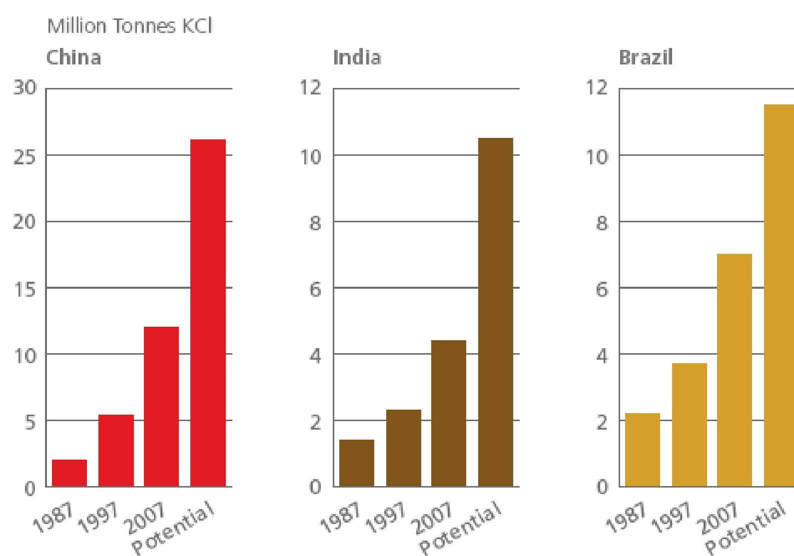


Source: USDA and Citi Investment Research estimates

- **China** is the main area of the world where we expect potash demand growth in 2009. China consumes c.11mT MOP (muriate of potash) p.a. with domestic production at only c.3.5mT. Fertecon estimates Chinese imports fell 35-40% in 2008 as a result of the delay to the fixing of China's annual import contracts with BPC and Canpotex. These contracts were settled in May 2008 (later than the usual Feb/March), by which time the global potash industry had already committed production elsewhere. Higher Chinese potash application is a crucial plank required to increase Chinese agricultural yields. According to IPNI, China would have to double its potash consumption to reach the recommended NPK application ratio of 2:1:1.

With the commitment of the Chinese government to the domestic agricultural industry recently confirmed, we expect China to be keen to return to a more normal level of imports in 2009. The price at which the Chinese contracts are negotiated in 2009 is one of the most important signals for the supply/demand balance within the industry. More on this later.

Figure 8. Increase in demand for potash in China, India and Brazil that would be required to bring application rates to the recommended level



Source: Potash Corp, IPNI, Fertecon

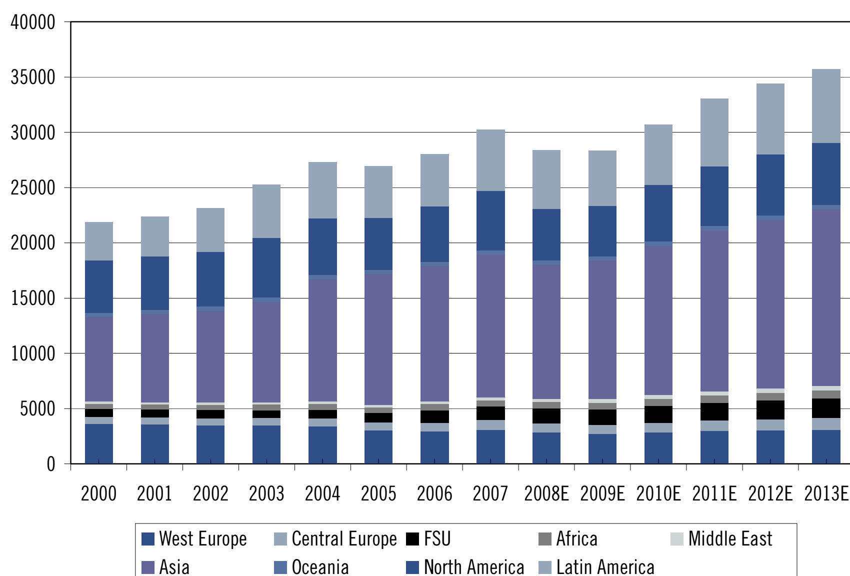
- We also forecast a continuing increase in demand from **India**, the second-biggest potash importer globally. The reasons are very similar to those for China. In India, the government subsidises fertiliser expenses for farmers and it has a stated policy of increasing yields through improved application of potash and phosphate fertilizers. Like China, India buys its potash under the terms of annual contracts. India's contracts are normally settled after the Chinese, but last year the Indians settled before the Chinese

- In **Latin America** and particularly Brazil, we have already mentioned how the dramatic demand escalation in H108 turned into a H2 collapse. Trade sources indicate that year-end potash inventory levels in Brazil may have been as much as 2mT MOP (up 150% vs 2007), representing around 30% annual Brazilian demand. We do not expect Brazil to have to make any new MOP purchases until at least Q2 and hence expect annual MOP demand in Brazil to fall by 5-10% in FY09. That said, if soybean prices and exchange rates stay at current levels the outlook for Brazilian soy production is very strong. Given the weakness of the Brazilian real, a farmer today would receive almost the same number of reais per bushel of soy as he would have done at peak dollar prices last summer.

LT Demand Fundamentals Remain Positive

We continue to believe that the long-term fundamentals for potash demand remain strong. After low demand in both 2008 and 2009E we forecast a sharp recovery in 2010E and 2011E before a return to a mid-term growth rate of 3-4% p.a.

Figure 9. Global potash consumption, 2000-2013E, kT K2O



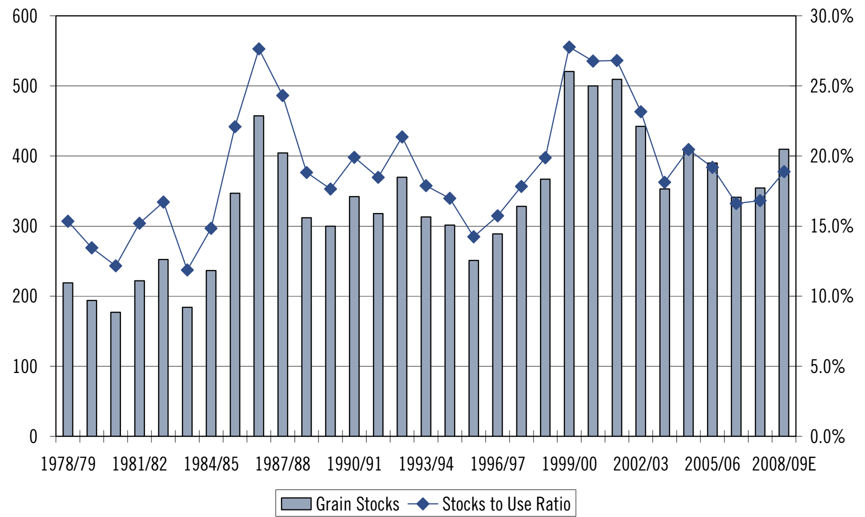
Source: Fertecon, Citi Investment Research estimates

We expect this recovery of potash demand from 2010E for three main reasons.

- **Developing regions:** Most importantly, we believe application rates of potash in China, India, Brazil, Russia and Eastern Europe will continue to rise. As we have already illustrated in Figure 8, China would have to double its potash consumption to reach the recommended application rates, India would have to more than double its annual consumption and Brazil would have to raise application levels by c.60%. In total, if these three countries alone were to increase potash application to recommended levels, it would represent a demand increase of 20-25mT MOP (or 35% of today's global potash capacity).

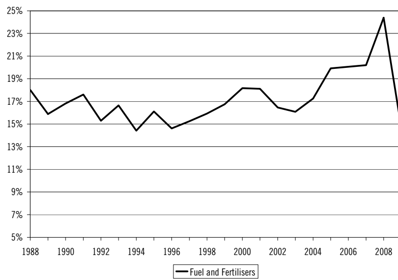
- **Low (ish) global grain inventories:** We have described the tightness in the underlying crop markets in great depth in our Crop Science report of *15th January 2009, The Need for Yield* https://www.citigroupgeo.com/pdf/SEU20605.pdf. Although global grain stocks will end 2008 at just under 19% consumption, which is above the 17% level of 2007, this is still low in a historical context. We are in a new environment of low grain stocks, steady demand growth, limited acreage expansion potential and so a need to consistently improve yield to meet demand. Grain demand growth is driven by population trends (an extra 80m mouths to feed a year) but also wealth effects (people choosing to eat a higher proportion of protein in their diet) and biofuels. The trend rate of increase is about 2%. Grain stocks remain below average despite two record years of grain production growth.

Figure 10. Stocks (mt onnes) and stocks to use ratio (%), 1978-2008



Source: USDA, Citi Investment Research estimates

Figure 11. Fuel and fertilizer spend as a proportion of farmers' overall costs



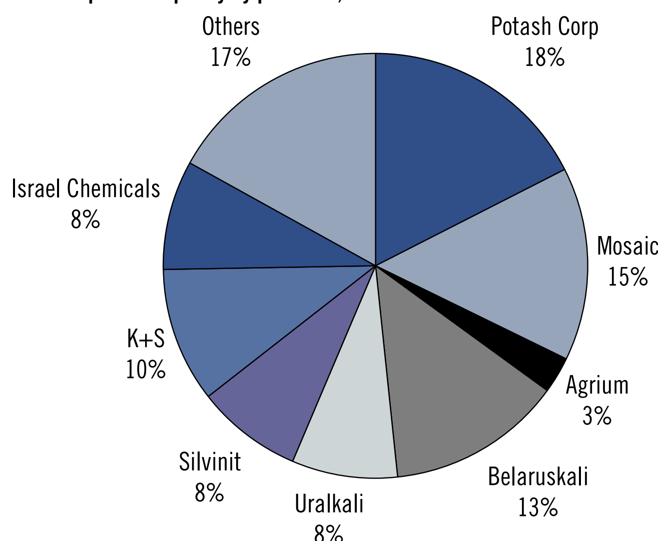
Source: USDA, Citi Investment Research

- **Supportive farming economics:** Again, we have already illustrated this in Figure 7. Despite the fall in grain pricing since May last year, price levels are still above average in the context of their historical price ranges. Importantly, notwithstanding the resilient potash prices, fuel and fertilizer cost as a proportion of farmers' overall spend has fallen back to its historical norm (Figure 11). We believe farmers will continue to invest to maximise yield. The main issue is that planted acreage growth is unlikely to be more than 0.5% p.a., with much of this from inland Brazil, which has high shipping costs to the coastal ports. The majority of the growth in production has to come from yield growth, which requires a sustained improvement in agricultural productivity, which means more intense use of inputs (pesticides and fertilizers) as well as changed agronomic practices, such as no tillage techniques. Demand growth from this level requires this change, so pricing for grains is likely to be sustained above recent trends, in our view.

Production Being Idled in 2009

The potash industry is highly consolidated with only eight major producers. These producers have reacted rapidly to the reduction in demand since September 2008 through a temporary reduction in production levels.

Figure 12. Global potash capacity by producer, 2008



Source: Fertecon

As demand has continued to disappoint, more production curtailments have been announced. In this way, the producers aim to sustain current prices until demand returns in 2010. Currently we gauge that c.9% global capacity is not producing, as shown in the table below.

Figure 13. Current Production Curtailments announced in the Potash Industry

Company	Production Curtailment (kT)	% of Company Capacity	% Global Capacity
Potash Corp	2000	15%	3%
Mosaic	1000	10%	2%
Belaruskali	750	8%	1%
Uralkali	500	9%	1%
Silvinit	1000	20%	2%
K+S	400	6%	1%
ICL	0	0%	0%
Total	**5650**		**9%**

Source: Company data, Fertecon, FMB, Citi Investment Research

Similarities to 2005/06

The current situation has many similarities to events in H205 and H106 and so it is worth revisiting history.

In the two years preceding 2005 there had been substantial increases in world imports for potash and so, logically, imports in 2005 had been expected to follow a similar trend. However, as it happened, they stagnated. Drought in Brazil, Southeast Asia and southern Europe had a detrimental effect on consumption of all fertilizer nutrients, and import demand was also negatively affected by high stocks in many markets in the early part of 2005 (all sounds a bit familiar doesn't it?). Again, Brazil showed the most drastic declines, attributed to a number of difficulties in the agricultural sector, in particular the strong domestic currency.

As a result of weaker-than-expected demand, inventories rose considerably in H205, which, just like today, prompted producers to curtail production so as to match demand. The autumn of 2005 saw shutdowns in the FSU, whist North American suppliers followed suit at the end of the year. In Q106 the market remained very weak, thus North American producers cut back supply even further, and in the FSU, Uralkali and Belaruskali reduced output as 2006 contract negotiations in China remain unsettled. We calculate that, in total, production cut backs totalling 10% global capacity were announced through H1 2006.

Figure 14. Annualised production curtailments during H1 2006

Company	Production Curtailment (kT)	% of Company Capacity	% Global Capacity
Mosaic	400	5%	1%
Potash Corp	3200	27%	5%
Uralkali	2000	37%	3%
Belaruskali	850	10%	1%
Total	**6450**		**10%**

Source: Company data, Fertecon, Citi Investment Research

Back to today: So far then, strong similarities: a lack of demand caused by price uncertainty and cut backs by producers to match demand of c.10%. The situation today feels somewhat more severe, however, given the global nature of events:

- In 2006 curtailments were just in North America and Russia/Belarus. Production in other major regions continued relatively normally. In 2009 the cut backs are pretty much global. Of the major producers only Israel Chemicals has not announced production cuts and this is only because it has the ability to store potash inventory at virtually zero cost in the desert (in other regions it rains too much and so the potash, which is very similar to table salt, would dissolve). The pressure on earnings within the industry from lower production volumes is far more widespread this time round.

- Equally, the collapse in demand in H1 2009 is more widespread than it was in 2006. In 2006 the demand fall was driven mainly by price uncertainty during the protracted contract negotiations in China and India. Once the price negotiations were settled in July, potash demand returned quite quickly and production was brought back on stream for H2 2006. Today we have significant uncertainty over all commodity prices – grain, fuel, nitrogen etc – let alone credit availability. This creates a much more general level of uncertainty among fertiliser buyers than in 2006.

- Finally, note that the production curtailment of 10% global capacity in H1 2006 was the final estimate; at the beginning of Q106 curtailments were at c.5% global capacity. Just as was the case in 2006, we could see further capacity cut-backs announced during H1 2009.

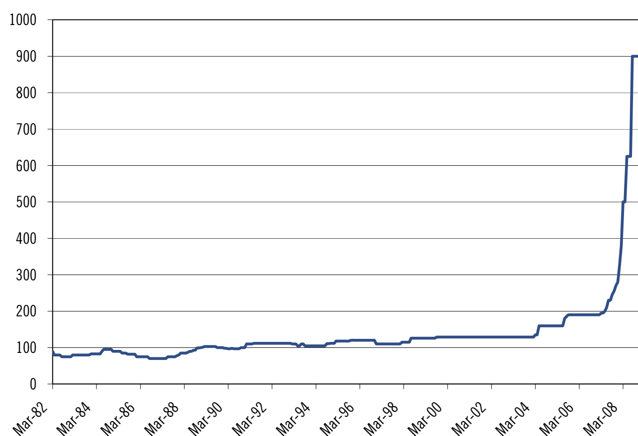
Can Pricing Hold?

This is the key issue. There are only eight major potash producers and five of these sell exports through two selling organisations. Prices between them and their customers are settled on either an order by order basis (as is the case in Brazil) or, in the case of China, India and major NPK producers, on a contractual basis for anything between three months and 12 months. Furthermore, the selling of exports from Russia/Belarus and North America is further consolidated, with Potash Corp, Mosaic and Agrium selling through Canpotex, and Belarus and Uralkali selling through BPC.

This unusual degree of consolidation, which has arisen due to the scarcity of potash reserves (over 80% reserves in three countries) and long-lead times for expansion (4-5 years for brown field expansion, 6-7 years for green field expansion), lends itself to strong pricing discipline.

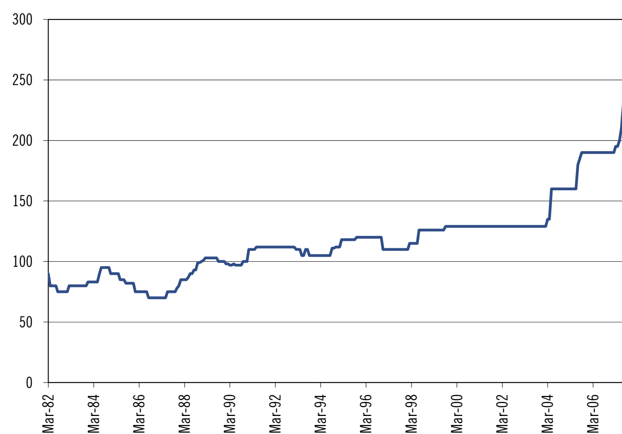
In fact, potash prices have rarely fallen over the last 25 years and have never fallen significantly – see charts below (Figure 16 shows prices only up to 2007 to allow a clearer illustration of potash prices before the dramatic escalation last year).

Figure 15. Potash prices 1982-2008 (US$/T)



Source: Fertecon, Greenmarkets, Citi Investment Research

Figure 16. Potash prices 1982-2007 (US$/T)

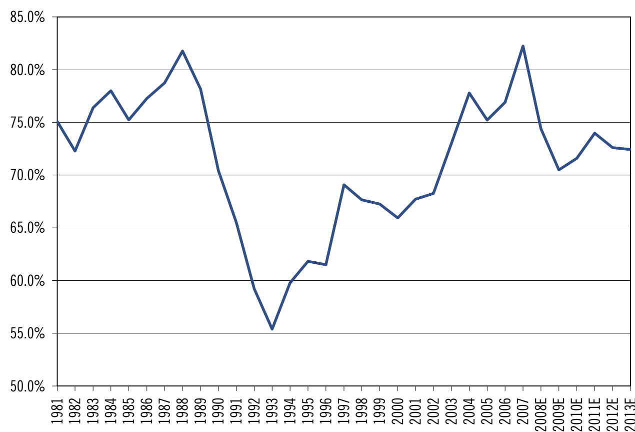


Source: Fertecon, Greenmarkets, Citi Investment Research

Even in 2006, which as we have described witnessed a similar fall off in demand to that which we are seeing today, prices did not fall. In fact, once the Chinese contracts had been settled in July prices rose c.60% in H206.

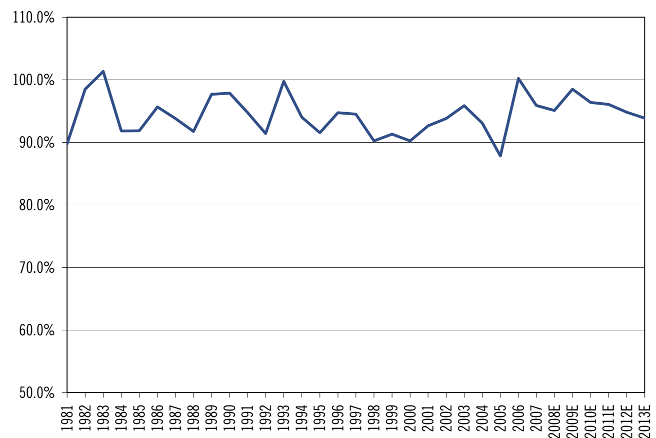
The potash industry is a rare example of an industry consistently following a price before volume strategy. During times of weak demand and apparent overcapacity (Figure 17) the industry has cut back production levels to match demand (Figure 18) so as to prevent a build up of inventories and a loss of pricing power.

Figure 17. Global potash demand vs. capacity, 1981-2013E



Source: Fertecon, Citi Investment Research estimates

Figure 18. Global potash production vs. demand, 1981-2013E

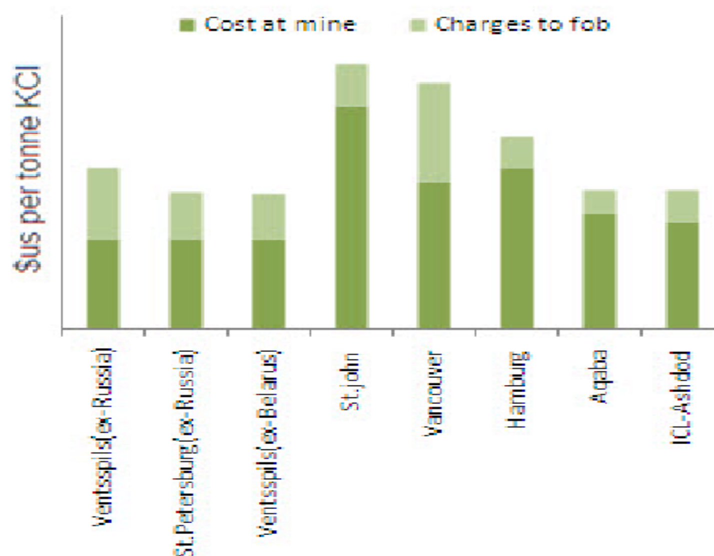


Source: Fertecon, Citi Investment Research estimates

So, it has worked in the past – can the industry repeat the trick again in 2009? So far, all producers/selling organisations have stood their ground. Production levels are being cut and no one has backed down on pricing. The difference this time round, of course, is that the absolute price the industry is aiming to maintain is higher, but farming profit levels are also much higher than in 2006, so there is not really an issue of farmer affordability.

Cash production costs for potash range between c. $50/T for the lowest-cost producers such as Israel Chemicals to around $200/T for the highest-cost Western European producers.

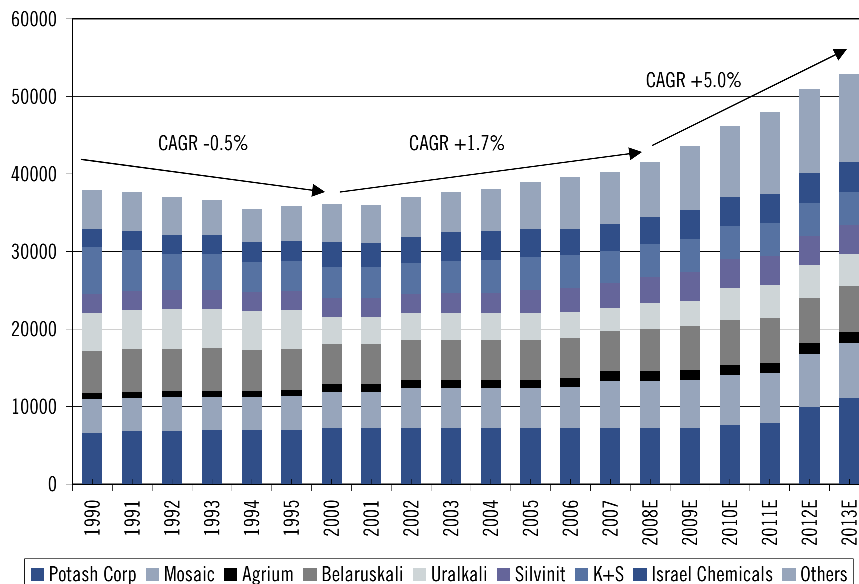
Figure 19. Production cost of different potash mines



Source: Israel Chemicals

Prices also have to be high enough to create the incentive to expand. We have already mentioned how China, India and Brazil represent a potential increase of demand representing c.30% global capacity. Current announced expansion plans accommodate this sort of level of demand growth, but were prices to fall significantly it would likely trigger project cancellations and delays. Uralkali has already cancelled one of its major capacity expansions due to uncertainties within its own business.

Figure 20. Global potash capacity by producer, 1990-2013E (kT K20)



Source: Fertecon

The importance of the Chinese and Indian contracts

The prices at which Canpotex and BPC settle their 2009 Chinese and Indian contracts will provide the major price signals for the remainder of the year. The Chinese contract is normally negotiated first (usually in Q1 after the Chinese New Year which this year is on 26th January, but in 2006 negotiations continued into July and in 2008 the contracts were not settled until May).

In 2008 the Chinese contract was settled at around $575/T FOB. We understand that BPC is proposing a $200/T increase to the FOB price (which would correspond to c.$800/T at today's freight rates) but, in our view, given current market conditions and the fact that China probably ended the year with around 3.5mT inventories, negotiations will be tough and we believe the industry will do well to get any increase in price vs. the 2008 level.

Grain price development

The other important factor that will determine the outcome for potash prices is the development of grain prices during 2009, which in the end determines whether farmers look to maximise yield through optimal input (fertilizers, pesticides) use or not.

Unfortunately, grain pricing in 2009 will depend quite substantially on the weather. As we enter 2009 grain stocks (at 18.9% consumption) are low, but higher than the 16-17% in 2006 and 2007 and not too far off the accepted 'sufficient' level of stocks vs. consumption ratio of the low 20%s. Whether grain prices fall or rise in 2009 will mainly depend on the level of grain production during the course of this year, since grain demand growth is usually relatively stable at about 2% growth. If the weather is kind to farming as it has been for the last few years, then production may exceed consumption again and tend to drive pricing down – and vice versa.

Difficult to predict therefore, but higher grain pricing will tend to bolster the future pricing power of the potash industry, and vice versa.

Citi's view

The risks are high and we see the outlook for 2009 as somewhat binary:

- Either the potash industry is successful in maintaining high prices (this will require grain prices to remain robust and a flat to higher Chinese contract price). In this scenario, we believe potash prices would remain strong through 2010 since demand would likely rebound in 2010 in an environment of continued high grain prices and following the thrifting of use in 2009.
- Or the potash industry has to concede on pricing to settle the Chinese and Indian contracts. In this case, we would expect international (spot) prices to fall to a small premium to these contract prices following the Chinese settlement. In this scenario, the direction of potash prices in 2010E would depend strongly on how grain prices develop in H2 2009.

Whichever scenario proves accurate, there are substantial earnings ramifications from the current lack of demand and the announced production cuts. We are reducing our 2009 EPS estimates for K+S and Israel Chemicals substantially in this report.

That said, the potash industry is exhibiting a strong commitment to pricing through production cuts, and we think the underlying fundamentals for agriculture (and hence for potash demand) are strong.

2009 will be a testing year for the potash industry but on balance we believe the underlying fundamentals support higher potash prices (albeit not quite as high as in 2008) for longer. Our forecasts are based on the assumption that the Chinese and Indian contracts settle at close to $600/T towards the beginning of Q209 and that this sets the international price level for the remainder of the year. Our reference potash price assumptions are set out below:

Figure 21. Citi potash price forecasts

	2007	Q108	Q208	Q308	Q408	FY08	Q109E	Q209E	Q309E	Q409E	FY09E	FY10E	FY11E	LT
Potash ($/T)	207	360	551	661	846	604	790	600	600	600	648	600	600	400

Source: Citi Investment Research estimates

Valuation Summary

Earnings for all the major fertiliser companies soared in 2008. The earnings outlook for the future is generally down. How far down depends on whether their exposure is to potash, phosphate or nitrogen. It also depends on how agricultural economies develop and nutrient pricing develops. The spectrum of outcome is wide. We have moved our risk ratings on both K+S and Israel Chemicals to High to reflect this uncertainty.

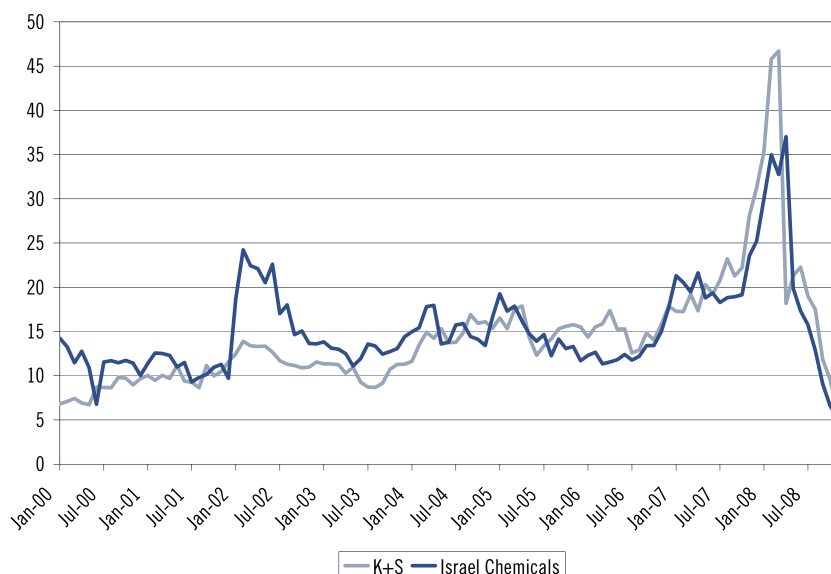
These inflexion points in earnings also make traditional PER and EV/EBITDA multiples less helpful than normal and so we don't use these as a major driver in setting our investment theses. Nonetheless we illustrate them below:

Figure 22. Valuation Table for Global Potash Peers

Company	RIC	Share	Current Price	Rating	Target Price	Implied Upside	EV/EBITDA		PE		Div Yield		Net Debt /EBITDA
							2009E	2010E	2009E	2010E	2008E	2009E	2008E
Potash Corp	POT.N	USD	72	2H	81	12.5%	2.5	2.0	4.4	4.5	0.6%	0.6%	0.4x
Mosaic	MOS.N	USD	35	2H	39	11.4%	3.0	1.3	5.0	3.3	0.1%	0.6%	-0.1x
Agrium Inc	AGU.N	USD	34	3H	27	-21.6%	2.2	1.7	3.9	4.3	0.3%	0.3%	0.3x
K+S	SDFG.DE	EUR	40	1H	50	25.4%	4.6	3.4	6.6	5.2	5.8%	6.0%	0.1x
Israel Chem	ICL.TA	ILS	29	2H	30	4.6%	6.0	4.9	7.4	6.2	10.3%	6.1%	0.5x
Uralkali	URKAq.L	USD	5	2S	23	346.6%	0.0	-0.2	0.8	0.9	39.3%	74.8%	-0.1x

Source: Citi Investment Research

Figure 23. Historic PER ratios for K+S and Israel Chemicals, 2000-08 (x)



Source: DataStream

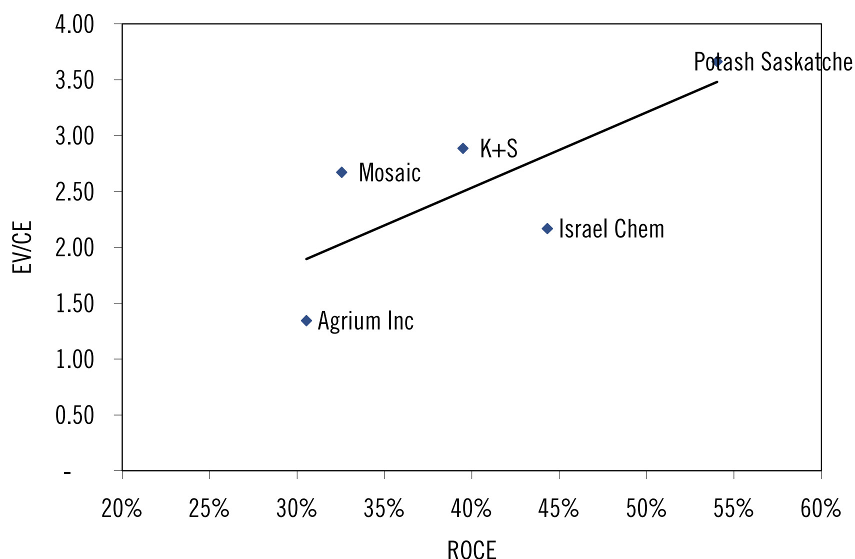
The multiples are all low, suggesting that the shares are discounting a sharp earnings contraction. While we expect some erosion, we think potash prices are likely to remain high given the need to expand supply in the longer term. As the market realises that potash prices are likely to remain higher for longer, we believe there is a substantial scope for a re-rating.

EV/CE vs ROCE

The profitability of the peer group versus the market's valuation of its capital employed should also be roughly correlated, although clearly this is just a snapshot in time and does not recognise the future direction of profitability.

Looking at the potash peers (excluding Uralkali, which is still waiting to hear the outcome of recent investigations and the size of any fine to which it may become liable in relation to the flooding of its mine) there is a good correlation between Potash Corp, Mosaic and K+S – the three companies that have a high exposure to potash. Agrium and Israel Chemicals trade at a discount, although this would be expected, in our view, given the poorer earnings outlook for their respective non-potash operations.

Figure 24. EV/CE vs ROCE, 2008E



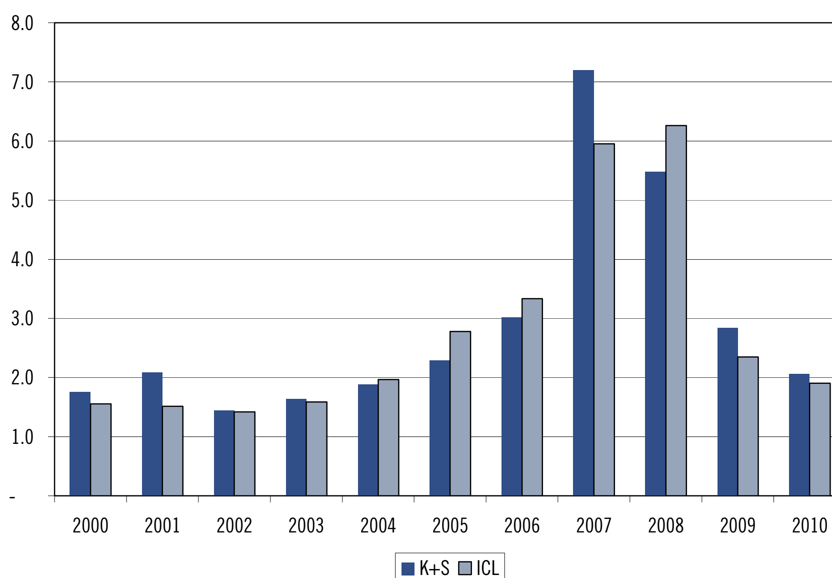
Source: Citi Investment Research

Price to book valuations

Price to book valuations for K+S and ICL rose to 9x and 10x in H108. K+S and ICL now trade on 2.8x and 2.3x 2009E book value, respectively, which is still somewhat above their long-term averages, but back to 2005-06 levels (when interestingly potash markets were experiencing similar conditions to those being seen today).

We believe returns in the potash industry are likely to be higher for longer and that price to book ratios above the long-term average are warranted.

Figure 25. Average price to book ratios for K+S and ICL, 2000-10E (x)



Source: Company Reports and CIR Estimates (08-10)

DCF Summaries

Our price targets for K+S and ICL are determined primarily by our DCF valuations. In these, we give the companies credit for our view of the next five years of profits, but then assume earnings return to a more normal level of profitability. For K+S we value the company solely on a 40-year period since this is the average reserve life of its mines. On the assumption that licences continue to be renewed, ICL on the other hand has the benefit of an almost inexhaustible reserve of potash given its source is the Dead Sea.

K+S

Our DCF suggests a fair value of €51. This is based on a long-term potash price assumption of $400/T. We calculate this potash price on the basis of high-cost production (c.$250/T) plus an additional $100-150/T required for the current capacity expansions to be economically viable. We use 7.9% as K+S' cost of capital and assume a long-term growth rate of zero, given K+S's lack of expansion plans. We also assume a stream of ongoing exceptional charges (which, in K+S' case, are likely to relate to ongoing environmental charges in respect of mining activity in Germany).

Figure 26. K+S DCF Valuation Summary, 2008-2014E, Euros in Millions

Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Sales	4,943	4,506	4,673	4,929	5,015	5,104	4,127
EBITA	1,353	1,362	1,704	1,866	1,837	1,846	810
Depreciation	141	148	160	174	188	194	200
EBITDA	1,493	1,510	1,864	2,040	2,025	2,040	1,010
Tax	-319	-387	-497	-550	-548	-559	-269
Capex	-201	-198	-252	-282	-282	-203	-203
Acquisitions/Disposals/Other	-6	0	0	0	0	0	0
Investment in working capital	-318	-119	6	-95	-61	-42	197
Restructuring costs	0	-23	-23	-25	-25	-26	-21
Capital employed	2,457	2,627	2,713	2,915	3,071	3,123	2,929
NOPLAT (EBITA-Tax-restructuring costs)	1,033	952	1,184	1,291	1,264	1,262	521
ROCE	42%	36%	44%	44%	41%	40%	18%
FCF	**648**	**783**	**1,098**	**1,088**	**1,108**	**1,210**	**714**

	Value	**Proportion of Firm Value**	**Key Assumptions**	**2009**
Value of forecast period (2010-2014)	4,216	50%	Average ROCE for sustainable advantage period	18%
Value of sustainable advantage period (2015-2044)	4,297	50%	No. of years of sustainable advantage	40
Value of capital at end of sustainable advantage period	2,929		Growth rate (mid-term)	0.0%
PV of capital	0	0%	WACC	7.9%
Firm value	8,513	100%	Ongoing restructuring costs as % of sales	0.5%
Net debt	-351	-4%		
Debt equivalents	464	5%		
MV of equity	8,400	99%		
No. of shares	165			
Value per share	**51**			

Source: CIR Estimates

Israel Chemicals

Our DCF valuation suggests a fair value for ICL shares of ILS30/share, roughly in line with the current share price. Again this is based on a long-term potash price of $400/T and a long-term phosphate rock price of $100/T. ICL should be a key beneficiary of potash prices remaining higher for longer, given it is one of the lowest-cost producers and can also expand at relatively low cost. It has recently expanded its Dead Sea production by 250kT and is planning a further 250kT expansion in the 2010-2012 timeframe. We use a discount rate of 10% (higher than that for K+S, given the added political risk associated with being listed on the Tel Aviv stock exchange). We assume a long-term growth rate of 2%, in line with average growth in demand for potash.

Figure 27. Israel Chemicals, DCF summary, 2008-2014E, US$ in millions except where stated

Year	2008	2009	2010	2011	2012	2013	2014
Sales	7,298	4,704	4,451	4,526	4,615	3,823	3,823
EBITA	2,768	1,654	1,924	1,938	2,026	1,210	1,210
Depreciation	198	198	197	196	195	194	194
EBITDA	2,968	1,853	2,122	2,135	2,223	1,405	1,405
Tax	-353	-333	-398	-411	-437	-283	-283
Capex	-315	-300	-300	-300	-300	-300	-300
Acquisitions/Disposals/Other	-91	0	0	0	0	0	0
Investment in working capital	-967	-147	288	285	93	393	393
Restructuring costs	0	-9	-9	-9	-9	-8	-8
Capital employed	4,684	4,934	4,749	4,568	4,579	4,294	4,294
NOPLAT (EBITA-Tax-restructuring costs)	2,415	1,312	1,517	1,518	1,580	920	920
ROCE	52%	27%	32%	33%	34%	21%	21%
FCF	1,241	1,063	1,703	1,700	1,570	1,208	1,208

	Value	Proportion of Firm Value	Key Assumptions	2009
Value of Forecast period (2010-2014)	5,710	48%	Average ROCE for sustainable advantage period	21%
Value of sustainable advantage period (2015-2044)	5,942	50%	No. of years of sustainable advantage	30
Value of capital in 2044	7,778		Growth rate (mid-term)	2.0%
PV of capital in 2044	278	2%	WACC	10.0%
Firm value	11,931	100%	Ongoing restructuring costs as % of sales	0.2%
Net debt	930	8%		
Debt equivalents	1,188	10%		
MV of equity	9,813	82%		
No. of shares	1,308			
US$ Value per share	**7.50**			
Local Market Value per share	**30.0**			

Source: CIR Estimates

Company Focus

Change in opinion ☑
Rating change ☑
Estimate change ☑

Hold/High Risk	2H
from Buy/Medium Risk	
Price (19 Jan 09)	NIS28.67
Target price	NIS30.00
Expected share price return	4.6%
Expected dividend yield	6.6%
Expected total return	**11.3%**
Market Cap	NIS36,289M
	US$9,497M

Price Performance (RIC: ICL.TA, BB: ICL IT)

Israel Chemicals Ltd (ICL.TA)

Industrials and phosphates undermine EPS prospects

- **Strong mid-term outlook for Potash** — Weak demand in H1 and limited ability to cut costs mean we expect ICL's potash profits to fall from 2008 levels. That said, the medium-term outlook for these activities remains robust, in our view. Industry production cuts should prevent a major fall in potash prices; we expect demand to recover in 2010 and ICL has some of the lowest-cost assets in the industry. Potash represents c.60% ICL's EBIT.

- **Phosphates under pressure** — 2008 phosphate profits, however, will likely prove one-off. ICL took advantage of record high phosphate rock prices to sell additional quantities into the market, rather than its usual strategy of consuming 90% production for downstream activities. Like potash demand, phosphate demand has collapsed in H1, but unlike potash prices, phosphate prices are also coming under pressure.

- **Industrial businesses to face significant pressure** — The main activities are brominated flame retardants used in the electronics and oil drilling industries, and phosphate chemicals used in a wide range of industries but particularly food, electronics and detergents. Again ICL has significant cost advantages in these operations, but the scale of demand decline in key industrial end-markets is likely to depress EBIT over the medium term.

- **Robust cost and financial structure but significant 2009E EPS pressure** — ICL is an intrinsically attractive business with leading market positions, a low-cost structure and a solid balance sheet. That said, 2008 profits were likely super-normal and not repeatable, in our view. EPS of roughly $1/share should be achievable in the mid-term on the basis of our price assumptions.

- **Dividend remains a support** — The company pays out a quarterly dividend of up to 70% of net income (in 2008E the payout ratio will be c.45%). We think the risk at the dividend level is negative, given our forecast for lower earnings, but nevertheless ICL should continue to provide shareholders with a decent yield.

- **Downgrade to Hold/High Risk, maintain $30 Target Price** — 2009E will mark a sharp reduction in Israel Chemicals earnings, the extent of which will depend heavily on potash and phosphate price developments. The shares have reached our recently lowered price target and we downgrade to Hold/High Risk.

Israel Chemicals Ltd (USD)

Year to 31 Dec	2006A	2007A	2008E	2009E	2010E
Sales ($M)	3,258.2	4,100.5	7,297.6	4,704.0	4,451.1
Net Income ($M)	366.4	538.3	2,209.5	1,321.3	1,586.2
Diluted EPS ($)	0.29	0.42	1.69	1.01	1.21
Diluted EPS (Old) ($)	0.29	0.42	1.65	1.88	1.03
PE (x)	26.3	17.9	4.4	7.4	6.2
EV/EBITDA (x)	14.8	11.8	3.8	6.0	4.9
DPS ($)	0.36	0.29	0.77	0.45	0.57
Net Div Yield (%)	4.8	3.9	10.3	6.1	7.6

Israel Chemicals - A difficult 2009

Potash – demand weak, but outlook solid

Potash demand is virtually non-existent at present and is unlikely to come back until the market has greater clarity on pricing. Pricing clarity will come, but not until the settling of the Indian and Chinese contracts which could be any time between February and July. H109E demand will be weak, but this should be followed by a strong H209E.

Israel Chemicals produces the vast majority of its potash from the Dead Sea in some of the lowest-cost assets in the world. The facilities also have the advantage of being able to store almost unlimited quantities of potash in the open air (lack of rain). This means that, unlike its peers, ICL has not cut production in 2009 due to weak demand. Indeed the de-bottlenecking at ICL's Pond 3 should drive increased production in 2009E. The flip side, however, is that production costs do not reduce during times of weak demand. If, as we expect, the Chinese and Indian contracts are settled at roughly the same price levels as in 2008, then ICL's average realised price should be roughly equivalent to 2008's level. Lower sales volumes will, however, drive profits lower (albeit still at a very high absolute level), in our view.

Phosphate – supernormal profits not to return

Historically ICL's phosphate operations were doing well if they generated more than $10m profit. In 2008E they will have generated c.$700m! The rise is very substantially more than that witnessed in the potash operations.

The operations are based on ICL's phosphate rock mine in the Negev desert. The strategy has historically been to utilize the vast majority (90%) of this rock to make higher value-added downstream products, both fertilsers (in Israel) and performance products (in Europe). This puts ICL at a significant cost advantage to most of its competitors, which rely on purchasing rock/phosphoric acid from third parties. In 2008, however, phosphate rock prices rose from under $100/T to $400/T. ICL took advantage of this to increase its rock production and increase sales of rock directly into the market. Rock sales volumes rose from 285kT in 2007 to c.653kT, we estimate.

Demand has now collapsed and pricing has also come down (to $250/T) – note this is still a very high level. The opportunity to maximise value for shareholders will be more limited in 2009E. Looking forward, rock prices are still high, but we have less confidence the phosphate industry’s ability to maintain pricing than we do in that of the potash industry. Morocco is the swing producer in phosphate rock and, although it has allowed some slippage, now appears determined to try to sustain prices at above $250/T.

The phosphate industry is, however, less consolidated than the potash industry and becoming less so still. In 2007, five countries produced 80% of global phosphate rock production, but by 2012E this will have risen to eight. Major developments are under way in Algeria, Saudi Arabia and Peru. These new capacity expansions are mainly being developed for the export market. It looks inevitable that phosphate prices will fall further in the medium term.

Industrial and Performance Products will suffer

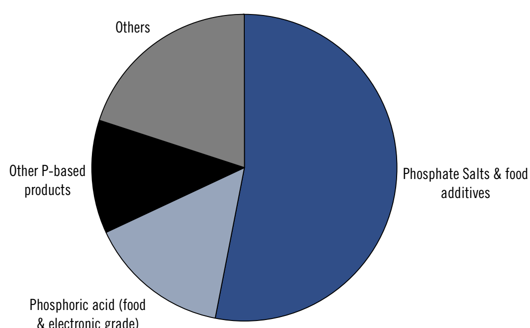
Performance Products

This division will have generated c.10% EBIT in 2008E (profit growth of over 200%). The business uses its phosphate rock raw material supply to make phosphate chemicals for a wide range of industries including food, electronics, detergents and construction. Profits should remain above average as long as phosphate rock prices remain at high levels (given ICL's backward integration). That said, we think demand will be significantly lower than in 2008, given the scale of decline in industrial demand.

Industrial Products

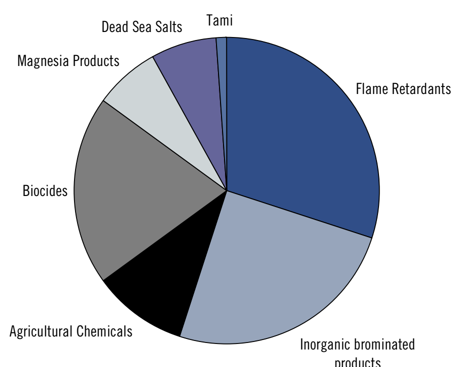
The main products are brominated flame retardants for the electronics industry and bromine based liquids used to balance pressure in oil drilling. The division will have generated c. 5% EBIT in 2008E. Again ICL has a cost advantage vs. its major competitors, given the high concentration of bromine in the Dead Sea. This will not, however, prevent a dramatic fall in profits in 2009E, driven by a declining electronics industry.

Figure 28. ICL Performance Products sales breakdown, 2007



Source: Company Reports

Figure 29. ICL Industrial Products sales breakdown, 2007



Source: Company Reports

Revised P&L estimates

As long as we are correct in our assumption that potash prices do not fall beneath around $600/T, we believe that ICL should be able to deliver EPS of around $1/share in 2009 in spite of the current weak demand. In 2010, we expect demand for phosphate and potash fertilizers to recover and, again on the assumption that potash prices remain higher for longer, this should drive a recovery in EPS. This level of earnings remains considerably above ICL's historical level of $0.3-$0.4/share, but clearly also well beneath the $1.7/share we forecast in 2008E.

Figure 30. Israel Chemicals, 2005-2010E, P&L Summary, US$ in millions

	2005	2006	2007	2008E	2009E	2010E
Sales						
Fertilizers	1,574	1,454	2,147	4,771	3,111	3,141
Performance Products	677	1,028	1,102	1,535	1,075	860
Industrial Products	806	838	925	1,194	716	645
Metallurgy	103	93	-	-	-	-
Other	(173)	(154)	(73)	(202)	(198)	(194)
Total Sales	**2,986**	**3,258**	**4,101**	**7,298**	**4,704**	**4,451**
% Growth	**10.0%**	**9.1%**	**25.9%**	**78.0%**	**-35.5%**	**-5.4%**
Operating Income						
Fertilizers	348	263	520	2,371	1,591	1,863
Performance Products	55	86	89	282	64	52
Industrial Products	154	209	124	126	14	19
Metallurgy	(9)	(36)	-	-	-	-
Other	13	14	(17)	(11)	(15)	(10)
Total Operating Income	**561**	**536**	**716**	**2,768**	**1,654**	**1,924**
% Margin	**18.8%**	**16.5%**	**17.4%**	**37.9%**	**35.2%**	**43.2%**
% Growth	**58.4%**	**-4.4%**	**33.4%**	**286.9%**	**-40.2%**	**16.3%**
Financial Expense	10	39	54	124	(11)	(66)
Other Income/(Expense)	(37)	(2)	(19)	(82)	-	-
PBT	514	495	642	2,563	1,665	1,990
Tax	102	137	113	353	333	398
Associates	(1)	(4)	(4)	(19)	(4)	(4)
Minority Interest	9	12	(4)	(19)	(15)	(10)
Net Income	422	374	529	2,210	1,321	1,586
EPS	**0.33**	**0.29**	**0.41**	**1.69**	**1.01**	**1.21**
% Growth	**68.9%**	**-12.7%**	**42.2%**	**311.2%**	**-40.2%**	**20.0%**
DPS	**0.08**	**0.36**	**0.29**	**0.77**	**0.45**	**0.57**

Source: Company Reports and CIR Estimates

Financial position

One of the reasons we feel the potash industry will stick to the price before volume strategy is that nearly all the major players have strong balance sheets. Israel Chemicals' balance sheet is also solid, albeit not as strong as some of its peers'. We expect the company to start 2009 with net debt of around $1.2bn which represents net gearing of just under 50%. Net debt to EBITDA is low at 0.5x for 2008E, but EBITDA is above trend at present.

The company has a generous, albeit rather vague, dividend policy of paying "up to 70% of earnings" in dividends on a quarterly basis. In 2008E the company will have paid out around 45% earnings, but given the EPS decline we forecast we believe it is prudent to expect dividend payments to follow earnings down, albeit at a lower rate. ICL is also in the process of buying back up to 5% of its share capital.

Figure 31. Israel Chemicals – Cash Flow Forecasts, 2005-2010E, US$ in millions

	2005	2006	2007	2008E	2009E	2010E
Net Income	**422**	**371**	**531**	**2,210**	**1,321**	**1,586**
Minorities	(9)	(12)	(17)	(19)	(15)	(10)
Depreciation	162	169	195	198	198	197
Change in Working Capital	(115)	(154)	(370)	(967)	(147)	288
Other	32	(30)	17	145	31	21
Net Operating Cash Flow	**491**	**345**	**357**	**1,567**	**1,388**	**2,082**
Capex	(155)	(138)	(195)	(315)	(300)	(300)
Acquisitions / Disposals	(272)	3	(364)	(94)	-	-
Other	79	(59)	79	(132)	-	-
Investing Cash Flow	**(349)**	**(194)**	**(480)**	**(540)**	**(300)**	**(300)**
Change in Borrowings	(27)	(1)	674	(109)	-	-
Dividends	(95)	(180)	(547)	(969)	(598)	(708)
Other	1	20	5	(219)	-	-
Net Financing Cash Flow	**(121)**	**(161)**	**132**	**(1,297)**	**(598)**	**(708)**
FX effect & other	(1)	0	1	(15)	-	-
Net Change In Cash Flow	**20**	**(10)**	**11**	**(286)**	**489**	**1,075**
Y/e Net Debt	**625**	**579**	**1,242**	**1,419**	**930**	**(145)**

Source: Company Reports and CIR Estimates

Company Focus

Rating change ☑
Target price change ☑
Estimate change ☑

Buy/High Risk	**1H**
from Buy/Medium Risk	
Price (19 Jan 09)	€39.88
Target price	€50.00
from €105.00	
Expected share price return	25.4%
Expected dividend yield	6.0%
Expected total return	**31.4%**
Market Cap	€6,580M
	US$8,755M

Price Performance (RIC: SDFG.DE, BB: SDF GR)

K+S AG (SDFG.DE)

Pure play potash

- **Potash drives over 90% K+S EBIT** — Despite the current dearth of demand, we believe potash prices will remain at a high level in 2009 given the scale of production cut backs being made across the industry. At current exchange rates, our global potash price forecast of $650/T in 2009 should still drive an increase in realised price for K+S in 2009E.
- **EPS progress in 2009E despite volume decline** — Volumes look likely to be lower in H109 vs. H108, given the current de-stock in the industry. Production cuts and weak demand mean substantial EPS growth is no longer possible in 2009E. That said, we still forecast modest EPS growth.
- **Recovery could be sharp in 2010E** — The underlying fundamentals for agricultural production, and hence potash demand, are solid, in our view. We expect demand to return sharply in 2010 and 2011. If, as we expect, current potash production cuts prevent a significant drop in prices, the mid-term outlook for K+S' earnings and cash generation should be strong.
- **Ungeared balance sheet** — K+S enters 2009 with an ungeared balance sheet. This is a position shared by most of its competitors. The industry is in a strong shape to remain committed to price before volume strategies.
- **Valuation back at more reasonable levels** — K+S' 2009E price to book multiple has declined from a high of 9x in June to 2.7x. This is higher than its historical average of 2x, but we believe returns will also be significantly above average over the next few years. The stock yields c.6%, which is supported by a strong balance sheet and our earnings outlook.
- **Buy/High Risk Rating** — There is good reason, in our view, to believe potash prices will remain higher for longer. Once the market has more clarity on pricing, we believe demand will return strongly. On this basis, we think the outlook for K+S' shares and earnings is significantly better than the majority of companies we follow. We maintain our Buy rating, although we move our risk rating to High, acknowledging the sensitivity of K+S to price movements.

K+S AG (EUR)

Year to 31 Dec	2006A	2007A	2008E	2009E	2010E
Sales (€M)	2,956.8	3,345.9	4,943.0	4,505.6	4,672.6
Net Income (€M)	217.4	165.2	960.7	994.9	1,277.3
Diluted EPS (€)	1.32	1.00	5.83	6.03	7.74
Diluted EPS (Old) (€)	1.32	1.00	5.92	10.44	7.57
PE (x)	30.2	39.8	6.8	6.6	5.2
EV/EBITDA (x)	17.8	18.1	4.9	4.6	3.4
DPS (€)	0.50	0.50	2.33	2.41	3.10
Net Div Yield (%)	1.3	1.3	5.8	6.0	7.8

K+S – EPS should be sustainable

Adjusting for volume declines

The production cuts being implemented by K+S and its potash peers in 2009 have no doubt changed EPS expectations materially for 2009. K+S is reducing its production by 400kT (or by roughly 5%), but we believe its sales volumes are likely to fall in the order of 10%. Roughly 70% of K+S's volumes are sold in Europe, where potash demand looks likely to fall 5-10% as farmers opt to thrift on potash given current commodity price uncertainty. Most of the rest of K+S's volumes end up in Brazil, where potash inventory levels more than doubled in 2008, given stock-piling by wholesalers in H108.

The decline in volumes (which will be most acute in H109E) causes a substantial reduction in our EPS estimates, given relatively high fixed costs.

Notwithstanding these volume declines in 2009 and our forecasts for lower potash prices in H209 and thereafter, we expect K+S should be able to maintain EPS in excess of €6 for the next few years. We expect potash prices to remain relatively steady over the medium term due to the consolidated nature of the industry and we expect potash demand to recover sharply in 2010E and 2011E. Long term we forecast a potash price of $400/T (€250-300/T), which would drive K+S's ROCE back to mid-teen levels, still well above its 8% cost of capital, on our estimates.

Figure 32. K+S P&L Summary, 2006-2011E, Euros in Millions

	2006	2007	2008E	2009E	2010E	2011E
Sales						
Potash & Magnesium	1,239	1,410	2,432	2,579	2,810	3,036
COMPO	552	617	803	601	541	557
fertiva	556	648	1,003	612	600	606
Salt	485	545	580	586	592	597
Complimentary Businesses	124	126	124	127	131	133
Total Sales	2,957	3,346	4,943	4,506	4,673	4,929
% Growth	5%	13%	48%	-9%	4%	5%
Operating Income						
Potash & Magnesium	159	178	1,195	1,314	1,648	1,791
COMPO	29	32	105	30	27	28
fertiva	17	25	39	12	18	18
Salt	68	48	34	35	41	60
Complimentary Businesses	39	39	26	19	20	20
Reconciliation	(33)	(37)	(47)	(48)	(50)	(51)
Total Operating Income	278	285	1,353	1,362	1,704	1,866
% Margin	9.4%	8.5%	27.4%	30.2%	36.5%	37.9%
Financial Expense	(21)	(36)	(23)	20	70	100
PBT	341	(143)	1,181	1,382	1,774	1,966
Tax	70	(50)	319	387	497	550
Minority Interest	0	0	-	-	-	-
Net Income	270	(93)	862	995	1,277	1,415
EPS	**1.32**	**1.00**	**5.83**	**6.03**	**7.74**	**8.58**
% Growth	**16%**	**-24%**	**482%**	**4%**	**28%**	**11%**

Source: Company Reports and CIR Estimates

Ungeared balance sheet

We expect K+S to report a roughly ungeared balance sheet at its FY08 results. Despite the demand fall, the correlated inventory build-up should not drive a substantial working capital outflow (beyond what has already been reported due to the effect of rising prices on receivables), given inventories are booked at production cost not selling price.

Under our potash price forecasts and despite the mid-term increase in capex relating to K+S's announced environmental spend, we think the company should remain strongly cash-generative over the next few years. The dividend payout ratio of 40% is safe (well, as safe as the earnings profile is), in our view.

Figure 33. K+S, Cash Flow Summary, 2006-2011E, Euros in Millions

Cash Flow Statement (€ m)	2006	2007	2008E	2009E	2010E	2011E
EBIT	**278**	**286**	**1,353**	**1,362**	**1,704**	**1,866**
Depreciation	123	128	141	148	160	174
Interest, net	(9)	(18)	(35)	20	70	100
Income tax paid	(48)	(19)	(319)	(387)	(497)	(550)
Other non-cash	(2)	(15)	23	-	-	-
Change in Working Capital	(128)	(466)	(318)	(119)	6	(95)
Disposal	(12)		(2)	-	-	-
Other	44	(4)	(6)	-	-	-
Operating Cash Flow	**246**	**(108)**	**836**	**1,024**	**1,443**	**1,495**
Capex	(124)	(149)	(201)	(198)	(252)	(282)
Disposals	60	20	2	-	-	-
Acquisitions	(366)	(12)	(6)	-	-	-
Investing Cash Flow	**(430)**	**(141)**	**(205)**	**(198)**	**(252)**	**(282)**
Share Repurchase	(8)	(6)	(6)	-	-	-
(Debt Repayment)/Borrowings	249	166	(291)	-	-	-
Dividend Payments	(74)	(83)	(83)	(384)	(398)	(511)
Other	4	4	4	-	-	-
Financing Cash Flow	**171**	**82**	**(376)**	**(384)**	**(398)**	**(511)**
FX Effect/Other	3	(0)	(1)	-	-	-
Increase/Decrease in Cash	(10)	(168)	254	441	793	702
Free Cash Flow	**122**	**(257)**	**635**	**826**	**1,191**	**1,212**
FCF/Share	0.74	(1.56)	3.85	5.00	7.22	7.35
Net Debt at year end	**292.7**	**635.2**	**90.23**	**(351.0)**	**(1,144.4)**	**(1,846.0)**

Source: Company Reports and CIR Estimates

Predator or prey?

Aside from potash prices, the main investment risk associated with owning K+S shares, as we have previously noted, is acquisition risk. Management has clear acquisitive ambitions given its *relatively* short reserve life (40 years) in potash. This remains a risk, although there is now less risk of value destruction through overpayment given the current collapse in asset values. Given the lack of available potash assets for sale, we believe that K+S's interests are likely to lie in nitrogen or phosphate assets or indeed its salt business.

Opposing this risk, however, is that K+S itself could become an acquisition target. In particular, MCC Holding limited (the company that manages the industrial holdings of Andrei Melnichenko on a fiduciary basis) increased its stake in K+S from 10.4% to 15.0% in November. Mr. Melnichenko is also the majority shareholder of the Russian fertiliser company Eurochem (Nitrogen & Phosphate activities), which bought the rights to develop the Palashersky potash resource in Russia last year (potentially 2m production p.a.).

K+S has now recognised MCC as a strategic investor, and we understand that MCC is seeking a seat on K+S's Supervisory Board (BASF, a 10% K+S shareholder has a seat on K+S's Board). It appears that Mr. Melnichenko sees synergies between K+S's experience in developing and producing from potash mines and Eurochem's potash undeveloped potash resource in Russia.

Israel Chemicals Ltd

Company description

ICL is a global producer of fertilizer and specialty chemicals. ICL is one of the largest producers of potash and phosphate fertilizer, bromine and brominated specialty chemicals, and industrial and feed phosphates. The group is among the lowest-cost producers of potash fertilizer and bromine, with operations based on the Dead Sea in Israel. In 2008, we expect the fertilizer business to account for c.80% of group operating income. ICL has strong commercial links to the fastest-growing regions of fertilizer demand, with c.50% of sales directed to Brazil, India, and China. The company is also the leading global supplier of bromine and brominated specialty chemicals, including flame retardants and oil drilling fluids.

Investment strategy

We rate ICL Hold/High Risk (2H). We believe mid-term demand trends for potash fertilizer (60% EBIT) are poised to remain solid at 2-3% p.a., given the ongoing trends of a growing global population and evolving dietary habits towards more protein in India and China. Potash is a crucial input that can help farmers achieve higher yields for their crops, which are needed to satisfy this growing demand. ICL stands well-positioned to benefit from these trends. Its potash operation on the Dead Sea is among the world's lowest-cost producers, and ICL has a strong transportation advantage to India, a major fertilizer market. That said, EPS prospects in 2009 look lower than in 2008 due to poorer mid-term prospects for its phosphate and industrial divisions (40% EBIT). Phosphate prices have come under pressure due to the less consolidated nature of the phosphate industry vs. the potash industry and ICL's industrial divisions will come under pressure from lower global GDP. Overall, given the recent share price rally, the shares are trading roughly in line with our view of fair value.

Valuation

Our NIS30 price target is primarily based off our DCF valuation. In our model, we assume a weighted average cost of capital of 10%, a long-term growth rate of 2.0% and a 30-year sustainable advantage period. The 30-year sustainable advantage period is due to the industry's high barriers to entry and ICL's unique potash extraction method from the Dead Sea, granted through an exclusive concession from the Israeli government.

Risks

We rate ICL High Risk due to the unpredictable nature of weather and its impact on agriculture, the limited free float of the shares, the special state voting share, and tightening environmental regulations in bromine. The following risks could prevent the achievement of our target price:

Weather: demand for ICL's fertilizer is heavily impacted by the weather, an inherently unpredictable factor over the long term. Too much or too little precipitation can affect a farmer's purchases of fertilizer.

Limited free float: just 38% of the company's shares trade freely. Israel Corporation, beneficially controlled (54%) by entities controlled by the Ofer family, holds a 52% stake in ICL. PotashCorp, a leading global fertilizer producer, holds 10% of the share capital. Israel Corporation controls four out of 12 seats on the board of directors.

State golden share: the Israeli government holds a special voting share that can allow it to block mergers, acquisitions, reorganizations, and shareholder stakes above specified limits on the grounds of protecting the Israeli public interest. This may be contrary to the interests of shareholders.

Regulatory risks: ICL is a leading producer of bromine and brominated products. Bromine is a toxic substance and has been targeted by environmental and health regulations, threatening its continued use. The largest products by volume remain on the market and have not been definitively proven dangerous, but additional prohibition cannot be ruled out.

Commodity grain price: demand for fertilizer is closely tied to the prices for commodity grains. These can be very volatile depending on weather, inventory and other factors.

The dollar: agriculture is largely a dollar-denominated business. About half of ICL's total production is based in Israel, with c.12-15% of costs denominated in shekels. We estimate a 1% change in the dollar impacts EBIT by $5-6 million.

K+S AG

Company description

K+S is a leading global producer of potash fertiliser and salt, and a leading distributor of agricultural chemicals and nitrogen fertiliser. K+S is substantially driven by agriculture. We estimate that K+S's three agricultural divisions (Potash & Magnesium, COMPO and fertiva) will account for 93% of operating income in 2008. The majority of this, 86%, will be driven by the potash operation.

Investment strategy

We have a Buy/High Risk (1H) rating on K+S. We have a positive view of the potash fertiliser sector and expect the robust price environment of the current market to continue into through the medium term despite the current de-stock in the industry. K+S has among the highest operating leverage to this trend in the sector. We believe the shares are an attractive investment, given our profit growth forecasts, high ROCE and a positive outlook in potash.

Valuation

In setting our €50/share price target for K+S we focus mainly on our DCF valuation. This is based on a long-term potash price of $400/T which is calculated on the basis of high cost production plus additional incentives needed to drive supply growth. We use 7.9% as K+S's cost of capital and assume a long-term growth rate of zero, given K+S's limited expansion plans. We also assume a stream of ongoing exceptional charges (for K+S, mainly environmental charges relating to mining in Germany). Our DCF model suggests a fair value of €51/share.

Risks

We rate K+S High Risk due to the unpredictable nature of weather, currency exposure and share price volatility. We believe these risks are largely offset by K+S's strong balance sheet and robust cash flow outlook. Factors that could prevent the shares reaching our target price include the following.

Weather: demand for K+S's fertiliser, agricultural chemicals and salt is heavily dependent on favourable weather.

Currency: outside Europe, the global agricultural markets are dollar denominated. Roughly one-third of K+S's sales are in currencies other than the euro.

Environmental liabilities: K+S and its predecessor companies have operated salt and potash mines in Germany for nearly 120 years. European environmental regulations are strict. We expect that continued waste disposal and ever tighter regulations will add to production and capex costs.

Share price volatility: K+S, like other fertiliser producers, has faced a highly volatile share price over the past 18 months.

Potash negotiations: China and India together represent c.33% of global potash demand. Prices in these two regions are set in annual negotiations. Our assumptions over the results of these discussions are integral to our view of K+S's earnings power.

Notes

Appendix A-1

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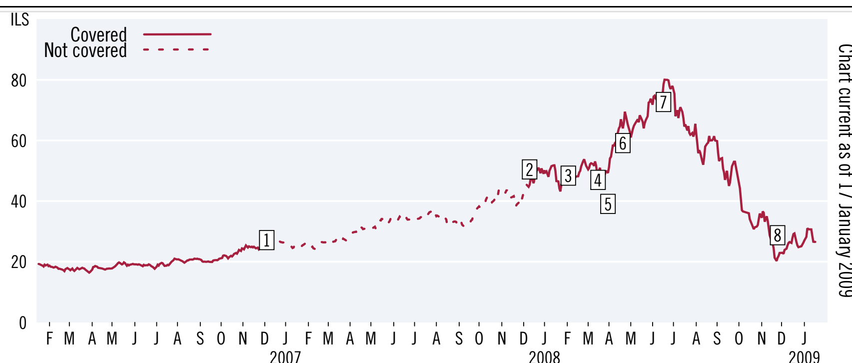
Israel Chemicals Ltd (ICL.TA)

Ratings and Target Price History
Fundamental Research

Analyst: Sophie Jourdier
Covered since July 2 2008



	Date	Rating	Target Price	Closing Price
1	5-Dec-06	Coverage suspended		
2	11-Dec-07	*1M	*56.00	45.30
3	4-Feb-08	1M	*58.00	48.40
4	17-Mar-08	1M	*62.00	47.00
5	31-Mar-08	1M	*70.00	49.30
6	21-Apr-08	1M	*80.00	64.00
7	17-Jun-08	1M	*85.00	78.50
8	25-Nov-08	1M	*30.00	21.30

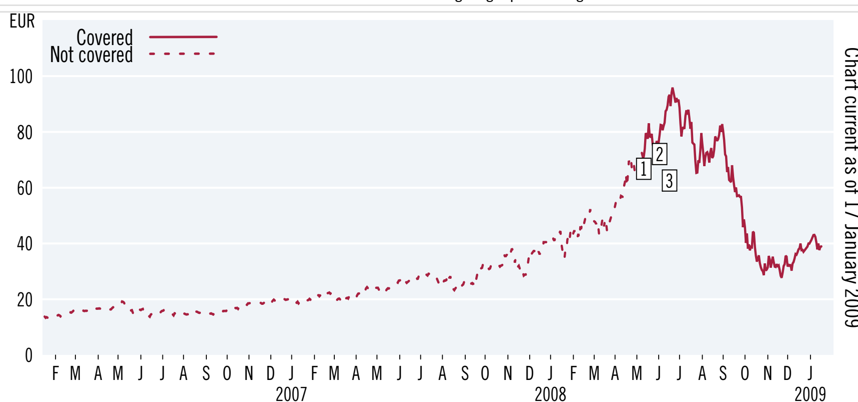
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

K+S AG (SDFG.DE)

Ratings and Target Price History
Fundamental Research

Analyst: Sophie Jourdier
Covered since July 2 2008



	Date	Rating	Target Price	Closing Price
1	12-May-08	*1M	*87.50	71.13
2	3-Jun-08	1M	*96.25	79.04
3	17-Jun-08	1M	*105.00	93.29

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