

Preliminary report

*INVESTIGATION INTO THE CAUSES AND CONSEQUENCES OF THE
SHARP INCREASE IN FERTILISER PRICES*

By

Philip Theunissen

M.Com. (Business Management)

M.Com. (Forensic Accounting)

Ph. D. (Business Management)

On behalf of

TAU SA

Requested by

S Roux Incorporated Attorneys

*Bethlehem
September 2009*

ABSTRACT

Although the South African fertiliser industry was supposed to function unregulated within the free market, a fertiliser cartel caused a distortion of retail prices in the local fertiliser market. The members of the cartel gradually surrounded raw materials with an impenetrable structure, enabling them to enforce predetermined arranged retail prices on the local fertiliser market. The exposure of this cartel within the structure of local fertiliser provision meant that farmers were paying excessive prices for fertiliser for longer than a decade.

There is no fundamental substance for the abnormal sharp increase in international and domestic fertiliser prices. There are stronger indications that international fertiliser cartels used the euphoria of food shortages and the speculative crude oil prices to enforce excessively high fertiliser prices on India and China, the two biggest consumers of fertiliser, while their governments were caught up in huge fertiliser subsidies for their own farmers. It was unavoidable that local suppliers in other countries, including in South Africa, used the subsequent rocketing Asian fertiliser prices as an excuse to raise their own domestic prices.

The farmer is not in a position to add the additional cost of rising fertiliser prices to the selling price of his own produce. He also does not have the opportunity to avoid high fertiliser cost by substituting crops with high fertiliser cost for those with low fertiliser cost. Consequently, he must absorb rising fertiliser cost with his own profits. The only alternative available to the farmer is to rather withdraw his farm from production and use it for other commercial purposes, like housing and tourism. If this is his option, the high fluctuating cost of fertiliser is a real threat to the sustainable production of cash crops and animal produce, creating uncertainty for food security in South Africa.

SUMMARY OF THE INVESTIGATION

Since the end of 2007 and for almost the entire 2008, fertiliser prices increased sharply. In certain cases prices went up to three times higher than a year before. This led to large scale international and local outcries as accusations started doing the rounds that prices were artificially increased so that the manufacturers could share in the bounty of higher grain and oilseed prices. Counter-claims by manufacturers were that the demand for fertilisers exploded, resulting in shortages of raw materials and production plants being pushed to the limits.

Grain and oilseed prices did not increase to the same extent as fertiliser prices and to the contrary, have subsequently fallen back to lower levels. This creates increased pressure on the profit margins of local crop and live stock farmers and threatens the sustainability of agricultural production. The environment for obtaining fertiliser has changed significantly and is no longer the same as it was during the past decades.

The sharp rise in fertiliser prices had a significant impact on the production costs of farmers. This places the sustainability of production in jeopardy. In the long run, if profits are low, farmers will decrease production, thereby reducing supply and increasing food prices.

1. OBJECTIVES

A proper factual investigation into all facets of the fertiliser industry provided the necessary answers to farmers who are currently concerned about the economic sustainability of their farming operations. The investigation addressed the impact of the high fertiliser prices on the manufacturers of fertiliser and the farmers.

Regarding the fertiliser manufacturers, the following factors were investigated:

- What does the structure of the fertiliser supply industry in South Africa look like? Who supplies raw materials, who manufactures the fertiliser, what is their capacity, how is it distributed and what is the market share of each role player?
- What does the international structure of global fertiliser supply look like? What is the global supply and demand of the various sorts of fertiliser? What is the production capacity of these fertilisers and is there adequate capacity to supply future demand?
- How did the domestic fertiliser industry function? What was the impact of price fixing and market division, as recently exposed by the Competition Commission?
- Is there fundamental substance for the factors argued by international fertiliser analysts for being the real causes for the sharp increase in fertiliser prices? Were they overlooking other factors that could have been responsible for the fertiliser price hikes?

With regard to the farmers, the following aspects were investigated:

- What was the basis of determining local fertiliser prices? Was local fertiliser prices determined within the financial capability of South African farmers? What was the impact of fertiliser cartels on local prices?
- What is the impact of the rising fertiliser prices on the production cost and ultimately the profit margins of farmers? How does the cost of fertiliser compare to the cost of other production inputs? What is the correlation between grain and oilseed prices and fertiliser prices?
- What is the quality of local fertiliser? Can farmers trust the specifications of local fertilisers?

The investigation ultimately answered the question if the causes of the sharp increase of fertiliser prices, within the South African context, were justifiable or if it was merely used as an excuse to enforce extremely high prices on farmers.

2. METHOD OF INVESTIGATION

The following resources were used to achieve the objectives of the investigation:

- Various personal interviews with people involved in the fertiliser industry;
- Various media reports;
- Annual Reports of a number of companies within the fertiliser industry;
- Various documents containing information regarding international fertiliser matters;
- Various databases containing statistical time series regarding fertiliser, agriculture and economic data;
- Various production guides.

Information from these sources was either used in the text or analysed statistically with Microsoft Excel and then presented in tables or graphs.

3. STATUS OF THE INVESTIGATION

The initial objective of the investigation was to approach the causes and consequences of the sharp increase in fertiliser prices from an agricultural economic point of view. Although this had been achieved, it also became clear that there wasn't just an economical and/or agricultural-economic explanation for the sharp increase in fertiliser prices. Some of the findings indicated that there were also some irregularities in determining prices, creating merit for further action by farmers. This report is however not compiled in the format of a docket and it isn't supported by sworn affidavits or authenticated documents. Therefore this report is merely an expert's opinion that can be used for expert witnessing.

4. PROBLEMS EXPERIENCED WITH THE INVESTIGATION

A number of problems occurred during the investigation. This included the following:

- A small budget for the scope of the investigation meant that certain aspects could not be investigated in depth due to a lack of funds;
- The time series of some databases, specifically international fertiliser production and sales, wasn't finalised until December 2008. Some figures were still preliminary or estimated;
- Documentary evidence collected by the Competition Commission is not available to the public and the status of this investigation didn't make it possible to get access to those documents;
- Because the Competition Commission is still investigating certain aspects of the local fertiliser industry, those companies implicated were reluctant to share information with this investigation;
- There are no separate disclosure of fertiliser activities in annual reports of those companies also conducting other activities as well.

Although the above-mentioned problems didn't influence the findings of this investigation, it could have resulted in a more thorough investigation, should they be mitigated.

5. CONCLUSIVE SUMMARY

The objective of this investigation was to determine the causes and consequences of the abnormal increase in local fertiliser prices for the period 2006 to 2008. To achieve this, the functioning of the local fertiliser industry, within the playing field of international fertiliser production and consumption, was firstly described. Secondly, the interaction between fertiliser manufacturers, fertiliser mixers and farmers was determined. Thereafter, the pricing policy of local fertiliser suppliers was analysed to calculate its impact on the profitability of farmers.

5.1. THE SOUTH AFRICAN FERTILISER INDUSTRY

The South African fertiliser industry annually supplies about 2 million tons of fertiliser products to the domestic market at a value of approximately R10 billion. This represents about 20% of the South African chemical industry, excluding oil. The South African fertiliser industry of today is fully exposed to world market forces. It operates in a totally deregulated environment with no import tariffs or government sponsored support measures.

The local industry will come under increasing pressure competing against the imports of globally traded commodities. The industry is still marked by inefficiencies stemming from

surplus capacities and duplication of resources and some further rationalisation may be required to maintain the viability of the local fertiliser industry.

5.2. THE INTERNATIONAL FERTILISER INDUSTRY

After five years of sustained growth in demand, rising operating costs and tightening supply, the world fertiliser market is now facing the prospect of alleviating balances through to 2013. In the short term, world supply/demand conditions are predicted with flexible annual potential surpluses, as a result of the severe contraction in fertiliser consumption in 2008/09, and a forecast of gradual recovery.

Since limited new capacity emerged in 2007 and 2008 outside China, the current oversupply situation is mostly a reflection of dampening demand worldwide except in India. In the near future, as fertiliser demand grows at sustained rates, potential supply from announced projects would further amplify the emerging surplus imbalances, at least until 2013.

The international fertiliser industry has responded to changes in demand by shifting production from areas with declining consumption to those with rapidly increasing consumption. At the same time, fertiliser trade-flows have become more concentrated. Changing demand patterns have also made it easier for relatively smaller companies to compete with the giants in the fertiliser market.

5.3. THE INFLUENCE OF THE LOCAL STRUCTURE OF FERTILISER SUPPLY ON LOCAL FERTILISER PRICES

Although the South African fertiliser industry was supposed to function in an unregulated manner within the free market, a fertiliser cartel, implicating Sasol, Omnia, Kynoch and Foskor, caused a distortion of retail prices in the local fertiliser market. Foskor successfully applied for corporate leniency with the Competition Commission with its role in the cartel while Sasol admitted guilt for price fixing. Omnia and Kynoch are still opposing the charges in spite of being implicated in the agreement between Sasol and the Competition Commission.

According to the findings of the Competition Commission, the members of the cartel gradually surrounded raw materials with an impenetrable structure to enable them to enforce predetermined arranged retail prices on the local fertiliser market. The exposure of this cartel within the structure of local fertiliser provision meant that farmers were paying excessive prices for their fertiliser for longer than a decade. There are however indications that the free market was already resurrected on retail level and that price determination on farm level is already much more effective, as was the case previously.

The manipulation of fertiliser prices by local suppliers seems to be something of the past, after the exposure of the cartel. There is however a dark cloud surrounding the future pricing of phosphates. Foskor, currently mainly state owned via the Industrial Development Corporation (IDC), has a clear intention of listing on the Johannesburg Stock Exchange. Therefore they are chasing profits to firstly repay the IDC shareholders loan of R1,45 billion and to secondly make itself an attractive investment. Its current favourable profit margins, due to its monopolistic pricing policy, together with the fact that more than 75% of its turnover is generated overseas (66% in India) will make it an attractive share on the JSE. Unfortunately, there is a strong

possibility that a substantial number of shares could fall into foreign hands, putting pressure on the company to maintain its pricing policy and sell more phosphates overseas at the expense of local markets. 15% of Foskor's shares are already owned by Indian Fertiliser Companies and another 26% will soon be allocated to local BEE-shareholders. It is therefore a formality that 41% of Foskor shares will already be in the hands of shareholders with no interest in local agriculture, even before listing on the JSE. The rest of the shares will surely be attractive to those feeding the huge Indian fertiliser appetite. The future ownership of Foskor is a substantial threat to local phosphate supplies and consequently, phosphate prices.

5.4. CAUSES OF THE SHARP INCREASE IN FERTILISER PRICES

A variety of global matters allegedly contributed to the recent abnormal rise in international fertiliser prices that was also reflected in local fertiliser prices. On the supply side, certain factors allegedly pulled prices upwards while demand factors pushed prices upwards. The main supply factors were an increasing demand for crude oil and natural gas, limited sea freight, increasing acreage of crops and climate conditions causing food shortages. The alleged demand factors were geo-political circumstances in Asia, money markets devaluating the USA-dollar, intervention by the Chinese government and inadequate capacity to provide enough fertiliser. An analyses of these factors showed that only the trend of crude oil prices had a correlation with the average of all fertiliser prices, although it should only correlate with nitrogen based fertiliser. None of the factors showed any correlation with local fertiliser prices.

With a substantial component of locally produced raw materials in local fertilisers, local prices should rise later and less than international prices but a comparison with international prices showed that local prices in some cases preceded international prices, generally raised sharper and than sustained the abnormal high price levels for longer than international prices. This is an indication that local fertiliser manufacturers used the opportunity of rising international prices to determine local prices on much higher levels of what is reasonable and justifiable above their manufacturing cost.

Fertiliser prices showed a much closer relationship with the price trends of grain and oilseeds than any of the alleged factors put forward by fertiliser analysts. Grain and oilseed prices on their own are however not a fundamental cause for fertiliser prices to increase, unless it indirectly contributes to increasing fertiliser demands. An analysis of international crop acreage and international consumption and production of fertiliser showed that high grain and oilseed prices didn't indirectly disturb the supply and demand of fertiliser. There is however a worldwide regional shift in the consumption, as well as the production, of fertiliser. This created a situation where some fertiliser manufacturers unexpectedly found themselves at the wrong place at the wrong time, putting pressure on their profits. For those manufacturers, the whole euphoria of rising food prices, together with the speculative crude oil prices, was probably an incentive to raise fertiliser prices.

There is no fundamental substance why the eight factors put forward by fertiliser analysts could have been the cause for the abnormal sharp increase in fertiliser prices. There are stronger indications that international fertiliser cartels used the fact that the governments of India and China were caught up in fertiliser subsidies for their local farmers, to enforce excessively high fertiliser prices on these countries. It was unavoidable that the subsequent rocketing Asian fertiliser prices became the benchmark for other countries as well, including South Africa.

5.5. DETERMINATION OF LOCAL FERTILISER PRICES

According to the Competition Commission, there was a fertiliser cartel in South Africa, which operated for several years by fixing prices and dividing the local market share. This deprived the market of the competitive processes that enforce downward pressure on prices. Notional prices that did not necessarily correspond to the real manufacturing cost of fertiliser were probably used to determine local prices at as high as possible level.

Two of the four fertilisers used in South Africa are imported in total. Of these two, the local price of urea showed clearly that import parity was used as a basis to determine the price but the local potash price used an unrecognised basis for price determination. This resulted in the local potash price to maintain much higher levels than the imported equivalent in 2008, just when international prices increased excessively.

The local prices of the two locally manufactured fertilisers, ammonia sulphate and phosphates, consistently maintained higher prices than import parity prices. In the case of ammonia sulphate, the local price for the past three years was on average 39% higher than the import parity price while it was 43% higher than the purchasing power price. In 2008, when fertiliser prices were excessively high, the local price of ammonia sulphate was 46% higher than import parity while it was 50% higher than purchasing power parity. The local price of phosphates was on average 35% above the import parity price from 2006 to 2008 while it was 79% above the purchasing power price. Local phosphates were 39% more expensive than imported phosphates in 2008 while it was 88% more than what the value of the local currency reflects.

The high gross margins of Sasol and Foskor indicate that the manufacturing cost of local produced fertilisers could not have been a contributing factor for local prices to be determined way above import parity prices. The prices of these fertilisers were therefore not determined on a realistic cost plus basis.

Using the improbable basis for a locally manufactured product, namely import parity, local prices of ammonia sulphate and phosphates for the past three years were respectively at least 39% and 35% more expensive than what is considered reasonable and justifiable for local circumstances. There was no fundamental reason for the prices of these fertilisers to increase sharper and to higher levels than that of international prices for the same fertilisers.

5.6. THE IMPACT OF RISING FERTILISER PRICES AT FARM LEVEL

On farm level, the prices of fertiliser already increased significantly from 2006 to 2007 by 27% and then increased excessively by 196% from 2007 to 2008. With 2005 as a basis, fertiliser prices increased by 281% in a matter of three years. This excessively high increase also had an effect on the profitability of farmers and as expenditure, it contains the following threats:

- Fertiliser is the one single farm input of which the price increased with extreme abnormality to reach four times its initial value in a matter of four years.
- Fertiliser is by far the biggest single direct expense for crop production. It takes up more than half of this group of costs and is also responsible for more than a third of total cost.

- Fertiliser is the most volatile expenditure of all farm inputs. It is even more volatile than fuel and creates more uncertainty than product prices or yields. This means that farmers can expect the cost of fertiliser to fluctuate more than 50% from one year to the next while product prices will not fluctuate with less than 30%.
- Fertiliser prices do not respond positively to product prices, resulting in fertiliser cost to increase sharply while product prices may decrease. The farmer is therefore not in a position to add the additional cost to the selling price of produce.
- The market capacity for crops with a low fertiliser cost is limited and does not offer an alternative if the farmer wants to substitute crops with a high fertiliser cost for one with a low fertiliser cost.
- Fertiliser price hikes means that the farmer must absorb the full resulting cost. In 2008, the situation deteriorated to such an extent that on average farmers forfeited 3% of their profit for every 1% increase in fertiliser prices.

The farmer is not in a position to add the additional cost of rising fertiliser prices to the selling price of his own produce. He also does not have the opportunity to avoid high fertiliser cost by substituting crops with high fertiliser cost for those with low fertiliser cost. Consequently, he must absorb increasing fertiliser costs with his own profits. The only alternative available for the farmer is to rather withdraw his farm from production and to use it for other commercial purposes like housing or tourism. If this is his option, the high fluctuating cost of fertilisers is a real threat to the sustainable production of cash crops and animal produce, creating uncertainty for food security.

5.7. MONITORING FERTILISER QUALITY

The percentage samples exceeding the allowed shortfall of element N during 2008/09 was 6%, compared to the 10% of 2007/08. It was 10% for P in 2008/09, compared to the 2% in 2007/08. Regarding K, the allowed shortfall that was exceeded was 10% of the samples in 2008/09, compared to 12% in 2007/08. In comparison with the previous season, there was a decrease in the N-containing samples that exceeded the allowed shortfall. In the case of P there was an increase while K showed a small decrease.

6. CONCLUSION

Although the South African fertiliser industry was supposed to function unregulated within the free market, a fertiliser cartel caused a distortion of retail prices in the local fertiliser market. The members of the cartel gradually surrounded raw materials with an impenetrable structure, enabling them to enforce predetermined arranged retail prices on the local fertiliser market. The exposure of this cartel within the structure of local fertiliser provision meant that farmers were paying excessive prices for fertiliser for longer than a decade.

There is no fundamental substance why the eight factors put forward by fertiliser analysts should have been the cause for the abnormal sharp increase in fertiliser prices. There are stronger

indications that international fertiliser cartels used the euphoria of food shortages and the speculative crude oil prices to enforce excessively high fertiliser prices on India and China, the two biggest consumers of fertiliser, while their governments were caught up in huge fertiliser subsidies for their own farmers. It was unavoidable that local suppliers in other countries, including in South Africa, used the subsequent rocketing Asian fertiliser prices as an excuse to raise their own domestic prices.

The farmer is not in a position to add the additional cost of rising fertiliser prices to the selling price of his own produce. He also does not have the opportunity to avoid high fertiliser cost by substituting crops with high fertiliser cost for those with low fertiliser cost. Consequently, he must absorb rising fertiliser cost with his own profits. The only alternative available to the farmer is to rather withdraw his farm from production and use it for other commercial purposes, like housing and tourism. If this is his option, the high fluctuating cost of fertilisers is a real threat to the sustainable production of cash crops and animal produce, creating uncertainty for food security in South Africa.