

Strategic Raw Materials

More Than Just Volatile Markets

Raw Material Shortages – Volatile markets have been giving purchasers quite a bit of a headache for some time now. However, this might be the less severe problem compared to supply shortages that have to be expected or that are here already for a notable number of strategic raw materials. Many companies down the value chain seem to be not alarmed, yet.



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But it is obvious that disruptions in the raw materials supply chain will have major effects on availabilities and prices of all parts and components that need these materials in their production process. Rare earths, for instance, are needed for many technically advanced products in electronics, in "green products," etc. and cannot be substituted by other materials without substantial loss in performance, quality, endurance, or cost-effectiveness.

Strategies for Volatile Markets

The short term problem is volatility. And this disturbing condition of certain supply markets is prone to stay for quite a while due to speculations by professional investors that are not backed by real demands for raw materials. As a matter of fact, nobody can really predict where certain supply market prices will go in the short- to mid-term. Purchasers therefore already switched to short- and very short-term contracts, wherever possible and reasonable.

Financial instruments (hedging) are applied by larger companies, for a price premium, of course, but the

majority of small and medium-sized companies have to struggle closing one contract after the other at more or less acceptable conditions. Only some companies, such as the sports equipment manufacturer Puma, are going for long-term contracts in order to have a more reliable basis for price calculations for their next collections to come. Others, such as Adidas, from the same industry seem to be luckier, since they outsourced their entire production.

However, this is neither always possible nor desirable in any case. It is the sad truth that so far investment companies, banks, financial agents and other people with lots of many are gambling intensively on the raw material markets. Companies in need for these materials are well advised to apply technical and chart analyses in order to have a chance not to get "ripped off" by the markets.

Prepare for Supply Shortages

It has been reported frequently in the media that China delivers up to 97% of all rare earths for customers around the world. As announced by the Chinese government, China is closing down illegal mines and is putting more pressure on the mining companies and consecutive production stages to stick to the more severe (or less lax) environmental regulations. But the major threat to companies outside China is that the government wants to make sure that companies producing in mainland China have access to all raw materials needed for production, and that this supply comes for very competitive prices. As a matter of fact, China itself already consumes 60% of all strategic rare earths on the market. Due to the fact that especially heavy rare earths are primarily needed for innovative technologies, China uses this pole position to foster its own industries. Furthermore, companies from abroad are forced to invest into the Chinese market by setting up manufacturing facilities on the mainland, thus bringing highly wel-



come, latest technologies into the country.

Supply Strategies for Strategic Materials

Many companies work hard on finding substitutes for critical materials. Henkel, for instance, invented new polymers to overcome supply shortages in ethylene vinyl acetate, a substance needed for producing adhesives. Another strategy might be backward integration. German energy company RWE for instance set up a plant for pellets production in Georgia, U.S., to benefit from the large timber resources in this state, while demand for timber products in the U.S. is declining. It is a profitable option to export pellets to Germany and use them as biomass in their usually coal-driven power plants.

As most industries went in the opposite direction from the 100% self-owned value chain practiced by Henry Ford in the early 1910s, backward integration seems an odd opportunity. Companies like Porsche or BMW are down to 15% value-add of the automobiles they are producing. However, backward integration in this case could mean jumping all the way to the beginning of the value chain in order to get access to stra-

tegic raw materials that are critical for one's own production process or for other members of the value chain the companies has to rely on.

There are more examples from the steel industry where the steel producer invested in mines to back-up supply options. In some cases, getting involved in the first step of the value chain could not only secure supply but may also help in pushing the environmental and/or ethical image of the company. Nestlé, Mars and Unilever are all engaged in projects to help farmers in the developing world to set up a more effective and more efficient farm. They work on convincing farmers to quit planting coca and switch to cocoa, coffee and the like by awarding them with long term contracts. Accompanying social projects for better education, medical fitness, etc. are run.

Prepare For The Future

Wherever possible, it seems to be even more valuable than ever to employ an intense relationship management to strategic suppliers and to do anything to be perceived as a preferred customer by the relevant suppliers. If things on the supply markets are turning even worse, it seems to be inevitable to team up with other companies in order to get better access to the relevant supplies. In Germany, the "Raw Materials Alliance" has been started by the Federation of German Industry, an effort to bring together companies in need of strategic raw materials and to invest in mining and supply projects together. Basic data about geological resources are provided by the German Mineral Resources Agency, a subdivision of the Federal Institute for Geosciences and Natural Re-

sources. Besides collecting geological data, options for substituting materials and for recycling as well as closed value chains are developed by the Fraunhofer ISC (Fraunhofer Institut für Silikatforschung) in cooperation with the Chair of Resource Strategy at the University of Augsburg, Prof. Dr. Armin Reller. Practitioners from all industries are developing opportunities in the group "Rare earths and strategic raw materials" on the website www.forumbeschaffung.de, a dedicated professional network for supply managers.

At this point in time, it is an urgent matter to spend more time on developing detailed supply strategies for strategic raw materials and parts, components, etc. that rely on these materials. It seems to be irresponsible to ignore the supply shortages that are around the corner or already on the doorsteps, only because a company is not in need of these raw materials in its own production process. Sooner or later every member of the supply chain will be affected, when producers in the backward supply chain are running into supply problems. Therefore, a detailed supply chain risk management is an essential tool for the company to survive.

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LyondellBasell's Q3 Profit Doubles

LyondellBasell's third-quarter profit nearly doubled, widely beating Wall Street's expectations, on strong chemical and oil refining margins. The company benefited from higher prices for certain types of crude oil, as well as higher efficiency at its flagship Houston refinery, which had been under repairs.

For the third quarter, LyondellBasell reported net income of \$895

million, or \$1.51 a share, compared with \$467 million, or 84 cents a share, in the year-ago period.

Excluding one-time items, LyondellBasell earned \$1.53 per share. By that measure, analysts expected earnings of \$1.22 per share, according to Thomson Reuters I/B/E/S. Revenue rose 29% to \$13.29 billion. Analysts expected \$13.33 billion. Operating income in the company's

largest unit, which supplies the basic chemical ethylene, jumped 34% to \$599 million.

Operating income of the refining unit increased more than fivefold to \$454 million.

The company, which emerged from bankruptcy protection last year, also said it would buy back nearly \$2.8 billion in debt, substantially improving its balance sheet. ■

PetroChina, Sinopec Q3 Profits Beat Forecasts

China's No.1 and No.2 oil and gas producers, PetroChina and China Petroleum & Chemical Corp (Sinopec), reported third quarter net profit that beat estimates, as strong oil and gas production growth offset refining losses. The Chinese government cut domestic fuel prices by about 3%, effective Oct. 9, leaving the refining

business of state-run oil firms Sinopec and PetroChina in the red.

Analysts expect outlook for the two companies to be hampered by more refining losses due to the lower domestic fuel prices imposed by the Chinese government and a resource tax which will be levied nationwide this month. ■

"The impact from the fuel price cut on Sinopec will be comparatively smaller, because its refining operations are more efficient, while PetroChina will be affected more," said Yan Shi, a UOB Kay Hian analyst in Shanghai. ■

Dow Chemical Profit Narrowly Misses Expectations

Dow Chemical narrowly missed Wall Street's quarterly profit expectations as cost increases and economic worries dented demand in Europe and North America. Dow raised prices during the third quarter to offset a \$1.7 billion increase in raw material costs, a step that brought flat volume growth globally. The results show that for at least some of customers, the price hikes were too much.

"There was just so much panic in the marketplace, which clearly must have created conservation on the part of a variety of product buyers," said Hassan Ahmed, a chemical

industry analyst at Alembic Global Advisors. "Economic theory dictates that as you elevate pricing there will be some sort of demand response."

Latin America and Asia were bright spots for Dow, where volume rose 7% and 5%, respectively.

"If you look at a company like Dow, North America and Europe are just several regional legs in a global strategy," said The Valence Group's Peter Hall, who advises chemical companies. "What we used to refer to as 'emerging markets' really now has emerged and is a major part of the overall sales mix." ■

Dow reported net income of \$815 million, or 69 cents per share, compared with \$512 million, or 45 cents per share, in the year-ago period. Revenue rose 17% to \$15.11 billion. Analysts expected \$14.63 billion.

Dow's agricultural unit posted a surprising operating profit for the quarter, a contrast with rival DuPont which posted a loss in its ag unit.

Operating profit in the coatings and infrastructure unit only fell 3%, despite the weak U.S. housing market. ■



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