SECTOR RISKS ANALYSIS – April 2016

CHEMICALS

ASSESSMENTS BY COFACE

LATIN AMERICA	NORTH AMERICA	EMERGING ASIA	CENTRAL EUROPE	WESTERN EUROPE	M. EAST + TURKEY
HIGH	LOW	HIGH	MEDIUM	MEDIUM	HIGH

RISKS ASSESSMENTS

HIGHLIGHTS

Prices of the main inputs used in the production of chemical products have hit their lowest level since June 2014, moving in line with the trends in the price of Brent (USD 30/bbl in January 2016), and natural gas (USD 2.4/MBTU). Accordingly, on 18 January 2016, the price of naphtha (a derivative of crude oil) hit USD 287/t versus USD 465/t beforehand. The price of ethane at Mont Belvieu was 13.63 cents/gallon, versus 19 cents/gallon 12 months before.

These falls in raw material costs are providing some relief for European producers, particularly the naphtha price. Economic activity nevertheless remains below the sector's potential and has failed to reach the 2006 level, the record year for production and consumption.

US petrochemical producers have until recently been able to take advantage of their access to inexpensive and abundant natural gas. That is still the case, but the fall in crude oil prices has enabled European producers that use naphtha to get back on their feet. **However, US producers still have a competitive advantage.**

A low naphtha price also helps Chinese producers. Nevertheless, **the development of olefins via coal, which is abundant and inexpensive to extract, is very capital intensive and puts significant pressure on the environment**, in a context of overcapacity (which is becoming more pronounced due to the economic slowdown) in some chemical industry segments, such as PVC.

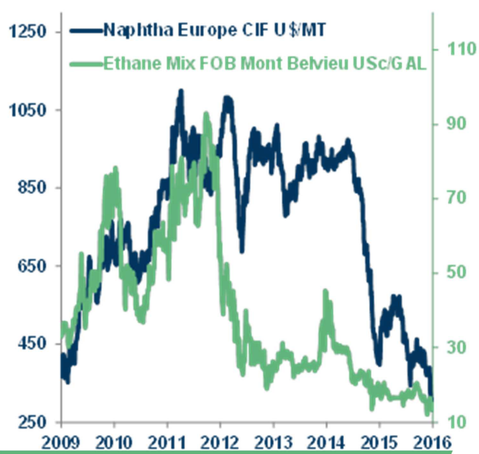
Strengths

- Fall in prices of the main inputs
- Robustness of US demand
- Specialty chemicals less dependent on the economic situation

Weaknesses

- Strong dependence on the economic situation of base chemicals
- Overcapacity in China
- Increase in production capacity for ethylene

Prices of naphtha and ethane



Source : Reuters

Coface headquarter:
1, place Costes et Bellonte - 92270 Bois-Colombes
T. +33 (0)1 49 02 2000

More economic studies on:
http://www.coface.com/Economic-Studies

CHEMICALS

DEMAND

Global demand for chemical products is likely to grow moderately in 2016, driven by North America and Western Europe.

In Western Europe in 2016, chemical activity is expected to grow by 1% according to the CEFIC. This figure is higher than in 2015 (+0.5%) as, according to Coface, growth in activity measured by GDP (+1.8%) should be slightly stronger than in 2015 (+1.7%). European chemical industrial production is largely focused on the domestic market, as 75% of this production is delivered to domestic clients, according to the CEFIC. The sluggish growth in this sector is explained by the fact that growth in industrial activity lacks vigour, but is nevertheless positive. This growth, up 1.1 % year-on-year at end-November 2015 (according to Eurostat), remains well below the pre-crisis average. Only the automotive sector seems to be doing well, with 28 consecutive months of rising new vehicle sales (+9.3% in 2015 compared with 2014). Together with industry, household consumption is the sector's main driver. **With regard to Central and Eastern European countries, the resilient demand should provide local producers with stable markets.**

Demand for chemical products in North America in 2016 will have a significant "net" effect on local producers. Coface expects a US GDP growth rate of 2.2% in 2016, slightly lower than in 2015, but which will provide markets for a pro-cyclical industry. The fall in the price of Brent will continue to affect US industrial production, which fell 1.8% in 2015, negatively affected by activity in mining and extractive industries (particularly unconventional oil, which requires chemical additives to extract). As for manufacturing production, we expect a slowdown in new car sales growth, with an annual increase of 2% in 2016 versus 5.7% in 2015. This slowdown is explained by the slight increase in interest rates decided by the Fed at the end of 2015, as well as by the level of vehicle sales, which seems to have reached its cruising speed after exceeding the pre-Lehman crisis levels. As for construction, private housing starts, which had increased 10.8% year-on-year at end-December 2015, will continue to grow rapidly. The reason is that despite the impact of US monetary policy on interest rates on long term loans, they are likely to remain low.

In Latin America, Brazilian demand will contract in 2016 as we believe activity measured by GDP growth will contract by -3%.

In China, we expect a growth rate of 6.2% in 2016. In China, we expect a growth rate of 6.2% in 2016. The construction sector provides a negative outlook for the chemicals sector: annual real estate investment growth in 2015 fell to 1% according to the NBS, while was 10.5% one year earlier. This sector is in a situation of overcapacity as many homes are vacant. The slowdown in the Chinese economy seems to be putting pressure on Chinese chemical producers' profitability. They are suffering from financial problems linked to their debt levels and to lending conditions, which are tightening. Moreover, new vehicle sales growth is slowing: sales increased by 7.3% in 2015 versus 9.9% in 2014.

SUPPLY

The low crude oil price has enabled an improvement in the margins of chemical producers that use naphtha, without eliminating the advantage of gas-based chemicals.

In Europe in 2016, the further fall in the oil price could benefit chemical production. In 2015, production from the petrochemical segment still suffered from competition from North American products, falling 2.4% over 10 months to end-October 2015. But given the falling oil price, these products are rapidly becoming less attractive. Although it is partly offset by the depreciation of the euro against the dollar, European naphta prices, a raw material for this industry, corrected by nearly 38% between mid-January 2015 and mid-January 2016, reaching USD 287 per tonne. It followed the fall in crude oil prices, which fell below the USD 30/bbl threshold in mid-January 2016. While the drop in these input prices enables companies in this sector to restore margins (USD 459/t in Q4 2015 versus USD 289/t in Q2 2014), the producer price collapse is reducing part of them. According to the CEFIC, producer prices had fallen by 4.7% at end-October 2015 (over 10 months) compared with in the same period in 2014. Margins will nevertheless increase in 2016 thanks to the increase in production of chemical products bolstered by the expected vigor of car production in Europe, as well as the improvement in the construction sector.

In the United States in 2016, demand for chemical products is likely to provide markets for US producers. The price of ethane, ex-pipeline in Mont Belvieu in Texas, was 13.63 cents/gallon in mid-January 2016, while at the same date in 2015, the price was 19 cents/gallon, i.e. a 28% fall. Despite the appreciation of the dollar against the euro, US petrochemical producers remain competitive, especially in olefins. Although the ratio crude oil (Brent) to Henry Hub natural gas has fallen to 12.5, it still remains to the advantage of US producers, and is expected to behave in the same manner in 2016, as natural gas prices follow crude prices with a certain lag. Accordingly, this sector will perform well in the United States, as the American Chemistry Council activity index, unlike its Western European counterpart, is improving month after month. At end-December 2015, it had grown by 1.5% from the same date in 2014, driven by producer prices, as well as by activity in the chemical customer sector. **US producers will benefit fully from their access to an abundant and relatively inexpensive raw material. Nevertheless, for the 2016, the US chemicals sector will in all likelihood benefit from the good performance of industrial activity.**

China is suffering from overcapacity in base chemicals. That is the case for the supply of polyethylene, PVC (whose capacity utilization rate is maximum 60%), and methanol. In the medium term, the increase in production capacity in olefins, produced via coal, may dent the profitability of the sector's actors. Moreover, this technology requires significant water consumption and capital, but also, and above all, puts severe pressure on the environment, a sensitive question in China. In 2015, nearly 76% of the ethylene produced in China came from naphtha (according to Platts). **In 2016, as in 2015, Chinese chemical industry will continue to suffer from overcapacity, and thus weak profitability. A domestic market under pressure will force the local producers to export, thereby imitating what Chinese steel producers are doing.**