

EAST EUROPE & C.I.S CHEMNET

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- **Williams close to completion of acquisitions in Lithuania**
- **Further currency erosion in Russia suggests more price increases ahead**

CENTRAL EUROPE

Olefins Progress is expected to be seen this year in the execution of project plans for olefin expansions and new polyolefin facilities at Litvinov. At present, negotiations are being conducted regarding finance for the projects. Unipetrol has recently taken out a loan of Kc 2 billion in order to balance the debts of the gasoline subsidiary Benzina. In terms of profit predictions the view from Central European producers is that this could be a tight year. Although feedstock costs remain as low as they have been for some time prices for the main polymers all seem to be encountering degrees of pressure. From Unipetrol's perspective, prospects for growth in the Czech market are not particularly good this year. To add, the possibilities for exporting outside of Central Europe are more limited.

Last year Chemopetrol experienced two enforced shutdowns in the petrochemical division which are expected to impact on eventual earnings' results. However, in spite of negative factors, including a weaker global climate, Chemopetrol a.s expects to see an improvement in profitability for 1998. In Slovakia, Slovnaft showed a decline in gross profits of 21% in the first three quarter of 1998 measured against the same period in 1997, and a cautious line is being taken by the company for prospects in 1999.

Petrochemia Plock SA anticipates a weaker year for profits but still expects to see growth in the Polish market. According to the IMF and other major economic forecasts Polish GDP in 1999 will increase at a rate of 4.5-5.0%. Olefin derivatives have in the past few years tended to grow at rates in excess of GDP rates which means that there will be increasing pressure on Petrochemia to meet demand. Where it is felt that profits will be affected is through the influence of imported products due to greater availability from Asia and West Europe.

Central Europe-currencies Jan 25th 1999

| Country | Currency | \$1= | EURO = |
|----------------|----------|---------|---------|
| Czech Republic | Koruna | 31.2780 | 36.2382 |
| Hungary | Forint | 216.125 | 250.316 |
| Poland | Zloty | 3.8925 | 4.1684 |
| Slovakia | Koruna | 37.0525 | 42.9177 |

A foreign investor is still sought for Rafineria Gdanska SA after Nafta Polska rejected the submitted offers at the end of last year. The main barrier to finding an investor is supporting the capacity expansion of the refinery from 4.5 million tpa to 9 million tpa. If unsuccessful in finding a buyer other options may need to be examined.

In Hungary, TVK this year expects to complete an approximate 20% capacity increase in the olefin cracker at Tiszaújváros, from 290,000 tpa to 350,000 tpa. This should be completed in the second half of this year. The modifications made to the equipment during the revamp will also facilitate an improvement in efficiency and reduce specific production costs. As a result of this expansion it should mean that the derivative capacities should not encounter any difficulties from the second half of 1999. The cost of this capacity expansion is valued at Ft 9 billion.

Olefin derivatives

Hungarian polyethylene production continued to show an increase up to the end of October, totalling 5% more in the first ten months of 1998 than in the same period in 1997. HDPE has seen the largest increase in production of 10%, with the 190,000 tpa plant working at nearly 99% of capacity. LDPE has seen a lower increase. The higher utilisation of polyethylene units has

been facilitated by more olefin availability resulting from the technical revamp of the cracker in 1997. However, polypropylene production achieved full capacity already in 1997 and a slight fall was recorded.

| Hungarian Polyolefin Output (unit-tons) | | | | | | |
|--|---------------|---------------|---------------|---------------|-------------------|-------------------|
| <i>Product</i> | <i>Sep-98</i> | <i>Sep-97</i> | <i>Oct-98</i> | <i>Oct-97</i> | <i>Jan-Oct 98</i> | <i>Jan-Oct 97</i> |
| Polyethylene | 25,117 | 21,917 | 25,908 | 23,574 | 245,357 | 232,238 |
| Polypropylene | 11,742 | 11,460 | 12,147 | 12,280 | 115,388 | 117,884 |

Polish and Hungarian PVC Output (unit-kilo tons)

| <i>Product</i> | <i>Jan-Oct 98</i> | <i>Jan-Oct 97</i> |
|----------------|-------------------|-------------------|
| Poland | 229.1 | 231.2 |
| Hungary | 205.7 | 197.7 |

In the PVC sector BorsodChem has been unable to secure sufficient VCM from the Oriana complex at Kalush, where feedstock problems have been encountered. As a result, BorsodChem has been buying VCM from several sources in Germany in order to maintain PVC production at Kazincbarcika.

The future of Chemicke zavody Sokolov a.s. (CHZS) still remains in question with Unipetrol unable to reach agreement with the National Property Fund over who should clear up the outstanding debts. CHZS still owes around Kc 3 billion for past investments, and its primary creditor Konsolidacni Banka is demanding an additional Kc 770 million in sanctions for delayed payments. At one stage, Unipetrol was considering a joint approach whereby Unipetrol would provide the necessary raw materials for production at Sokolov, whilst a foreign partner would provide necessary research and technical upgrades. With Unipetrol now appearing less interested the four potential foreign companies are in direct contact with the National Property Fund.

Energy

At the end of last year BorsodChem announced that it would build a 50 MW CCGT power and steam plant, costing a total of Ft 12 billion to partly meet electricity and steam requirements at Kazincbarcika. BorsodChem currently buys 90 megawatts from Emasz, the Hungarian energy distributor, with demand expected to increase to 100 megawatts. Possessing a 50 megawatt power plant, BorsodChem would be able to provide half of its electricity requirements internally. Emasz will hold a 44% stake in the energy company established to control the plant, with BorsodChem taking 26% and MOL 30%. The financial package for the project is expected to be finalised by the end of March. The new plant to be constructed is scheduled for coming onstream in late 2000.

Industrial gases

Since last September the industrial gases' market in Central Europe has come under the focus of a 15 year contract covering hydrogen supply and intake signed between Chemopetrol and Air Products. Based on this contract Air Products plans to build a hydrogen filling station worth approximately Kc 60 million at the Chemopetrol complex. In this station hydrogen will be filled into storage-battery cars which will supply it to customers in the Czech Republic and other Central European countries.

In Poland, Universal Envirogenics Inc (UEI) in June 1998 started a new 100 tons per day food grade liquid CO₂ plant at Kedzierzyn at the ZAK site. The liquid CO₂ plant recovers, purifies and liquefies a raw CO₂ vent stream from an ammonia plant. Product from this plant will be sold in the Polish merchant CO₂ market where it will be used to carbonate soft drink beverages. The new plant has more than doubled the available capacity at Kedzierzyn and has allowed ZAK to close the older plant.

Fertilisers

Zaklady Azotowe Tarnow-Mosice SA in southern Poland experienced losses in 1998 estimated at 30 million zlotys. Turnover of the company was around one billion zlotys. The reasons behind the losses include the high price of natural gas, and the prices of fertilisers and caprolactam. In 1999 ZAT SA will implement an austerity package for the second consecutive year, in which 400 to 500 workers will be made redundant.

Company News

Although having recovered from the low prices of October Hungarian share prices in the chemical sector are way down still on the earlier part of last year. Hungarian pharmaceutical companies, in addition to those companies exposed heavily towards the Russian market, have suffered the worst in terms of share price erosion. Even companies such as TVK and BorsodChem have experienced major falls in capital since last May resulting from the 'stockmarket correction'.

BorsodChem Rt plans to take out a loan for the second half of this year intended to create new products which are less cyclical and commodity oriented. The aim is to move into product areas with higher added value although the possibility of producing MDI products has been ruled out by the company. MDI capacity at Kazincbarcika was increased to 40,000 tpa in 1997. On December 2 1998 the representatives of ITRACO GmbH (Wiener-Neustadt) and TVK Rt. signed an agreement under which TVK became the majority owner of a trading company located in Wiener-Neustadt, under the name of TVK-Austria GmbH. This follows TVK's acquisition of 74% in the Austrian plastics' processing company Hamburger Unterland.

| Hungarian Share Prices (forint per share) | | | | | | | | |
|--|--------------|------------|------------|----------------|----------------|-------------|----------------|--------------------|
| <i>Date</i> | <i>BChem</i> | <i>TVK</i> | <i>MOL</i> | <i>Nitroil</i> | <i>Richter</i> | <i>Egis</i> | <i>G'plast</i> | <i>Pannonplast</i> |
| 02.05.98 | 7,995 | 4,955 | 6,530 | 69,300 | 22,495 | 11,300 | 8,145 | 9,097 |
| 02.06.98 | 5,875 | 3,415 | 4,895 | 69,300 | 18,000 | 7,900 | 5,600 | 7,200 |
| 02.07.98 | 6,355 | 4,300 | 6,015 | 69,300 | 17,760 | 7,660 | 5,480 | 8,000 |
| 03.08.98 | 7,100 | 3,895 | 6,435 | 69,300 | 16,950 | 7,980 | 5,295 | 9,899 |
| 31.08.98 | 4,950 | 2,800 | 4,495 | 69,300 | 7,100 | 4,500 | 3,500 | 6,000 |
| 30.09.98 | 4,385 | 2,120 | 4,195 | 69,300 | 6,955 | 3,800 | 1,450 | 5,200 |
| 31.10.98 | 3,950 | 1,895 | 3,910 | 69,300 | 5,650 | 3,680 | 1,250 | 4,299 |
| 30.11.98 | 5,400 | 2,890 | 4,900 | 69,300 | 8,620 | 4,600 | 1,950 | 5,450 |
| 28.12.98 | 5,605 | 2,940 | 6,050 | 69,300 | 9,000 | 4,800 | 1,680 | 5,950 |
| 25.1.99 | 5,195 | 2,730 | 5,885 | 37,000 | 10,020 | 4,790 | 1,375 | 5,750 |

For 1998, Nitrokemia 2000 Rt in Hungary is expecting pre-tax profits of Ft 170-180 million on net sales of Ft 10 billion. Nitrokemia in the middle of last year predicted pre-tax profits to reach Ft 1 billion on sales of Ft 12.5 billion. The company, which is 100% owned by the State Privatisation and Holding Company, has cited a fall in domestic sales and low world market prices as the reasons for its poor performance.

In the Czech Republic, AliaChem a.s. became a legal entity from the start of the year. Synthesia a.s. has now been merged under the name of AliaChem and shares under Synthesia have ceased trading. The share price that AliaChem has been achieving has followed on from Synthesia's trends. For 1998, companies that comprise AliaChem incurred losses of Kc 414 million from a turnover of Kc 11.74 billion. This year a forecast of Kc 214 million profit has been forecast with an increase of turnover by 13%. In the meantime, Collinda has bought Chemapol UK, an agreement that covers the stocks and supply of chemicals from 15 companies in the Czech and Slovak Republics.

| Polish Chemical Output 1998 (unit-kilo tons) | | | | |
|---|---------------|---------------|-------------------|-------------------|
| <i>Product</i> | <i>Oct-98</i> | <i>Oct-97</i> | <i>Jan-Oct 98</i> | <i>Jan-Oct 97</i> |
| Plastics | 81.3 | 75.8 | 756.7 | 701.8 |
| PVC | 24.2 | 26.2 | 229.1 | 231.2 |
| LDPE | 14.1 | 14.6 | 142.5 | 127.2 |
| Caustic Soda | 38.5 | 35 | 307.7 | 292 |
| Sulphur | 94.4 | 149 | 1,197.8 | 1,440 |
| Pesticides | 0.9 | 1.5 | 23.2 | 25.1 |
| Lacquers | 19 | 19.7 | 273.1 | 227.5 |
| Detergents | 28 | 31.3 | 292.2 | 264.3 |
| Nitrogen Fertilisers | 122 | 107 | 1,182.8 | 1,331 |
| Phosphate Fertilisers | 81.3 | 47.7 | 549.9 | 510.5 |
| Synthetic Fibres | 7.3 | 10.8 | 79.7 | 90.3 |
| Synthetic Rubber | 8.3 | 8.8 | 80.1 | 83.3 |
| Total Oil Processed | 1,377 | 1,302 | 13,121 | 12,407 |

The main short term challenge to AliaChem's future is linked inextricably to the debt situation faced by Chemapol Group (ChG).

On January 27, Chemapol was declared bankrupt with creditors having been given 30 days to file claims against Chemapol Group. In view of the debts owed to Credit Lyonnais the French bank could now become the new owners of AliaChem. However, the bankruptcy could seriously complicate

AliaChem's current situation.

The declaration of bankruptcy follows petitions filed firstly by Ceskoslovenska obchodni banka on December 22 last year and in the latter part of January by the bank Credit Lyonnais. ChG's debts to Credit Lyonnais are estimated to be worth around Kc 1.2 billion whilst AliaChem's assets form collateral for a major part of the loans. ChG owns a 51% stake in AliaChem with another 32% owned by banks and 16% owned by AliaChem itself. This latter shareholding may have to be sold off.

SOUTH EAST EUROPE

Refining After being idle for almost three years the Plama refinery at Pleven in Bulgaria restarted operations on January 11. This followed the acquisition of 75% in the refinery by the Cyprus based Plama Consortium which was completed in November last year. The refinery was first sold to Euroenergy in 1996 but this company was unable to revive the plant. The costs of the restart of the refinery are estimated at between \$15-20 million and full capacity of 1.2 million tpa is expected to be reached by around June this year. The Plama refinery has the capacity to produce around 120,000 tpa of lubricants, with the Bulgarian market estimated at between 30,000 to 50,000 tpa. Investments will required in order to enable the production of EU standard gasoline.

In late last year the State Ownership Fund of Romania signed a memorandum with Akmaya of Turkey for the sale of 65% in the Petromidia refinery and petrochemical complex. The privatisation was expected to be completed in the early part of 1999. Under the memorandum, Akmaya has agreed to pay \$465 million for

the stake in Petromidia, including investments in upgrading the refinery. This is the second occasion that Petromidia has been put up for privatisation, the first offer failing to be completed.

Olefins

Crude imports into the Federal Republic of Yugoslavia fell by about 20% in 1998 against 1997 but cracker operating rates at Pancevo are higher. Propylene exports from Yugoslavia almost doubled in the first three quarters of 1998. In the first ten months of 1998 Romania produced 123,302 tons of ethylene at the Pitesti complex, compared to 118,183 tons in the corresponding period in 1997. The 1998 figure included a shutdown period during August. However, less propylene has been produced at the Romanian refineries which has meant that overall propylene volumes are down. There is still a demand for imports of propylene for processing into OXO alcohols and polypropylene with domestic capacity remaining highly under-utilised.

South East Europe-currencies Jan 25th 1999

| Country | Currency | \$1= | EURO= |
|------------|-----------|---------|---------|
| Bulgaria | Lev | 1688.25 | 1955.33 |
| Croatia | Kunar | 6.3474 | 7.3516 |
| Macedonia | Dinar | 52.0044 | 60.2315 |
| Romania | Lei | 11475 | 13290.3 |
| Slovenia | Tolar | 162.921 | 188.695 |
| Yugoslavia | New Dinar | 10.0615 | 11.6532 |

The miners' demonstrations that have taken place in Romania are likely to fuel more anti-government feeling in other sectors of the economy. Romania's external financial situation is extremely serious and it has been suggested in some quarters that unless there is intervention by the IMF the country could default on foreign payments this year.

Olefin derivatives

The present budgetary shortfall is putting pressure on the Romanian government to sell individual enterprises. The sale of Oltchim SA at Rimnicu Valcea was supposed to be completed by the end of 1998 but no decision has yet been publicised. In the meantime, Oltchim is carrying out modernisation at the OXO alcohol plant, plus further progress in the company's respective joint ventures.

Romanian Oil and Processing Output (unit-kilo tons)

| Product | Jan-Oct 98 | Jan-Oct 97 |
|---------------------|------------|------------|
| Oil Extracted | 5,321.31 | 5,429.80 |
| Total Oil Processed | 10,147.40 | 10,369.80 |
| Gasoline | 2,692.66 | 3,047.30 |
| Gas Oil | 2,342.57 | 3,323.90 |

Romanian Chemical Output (unit-tons)

| Product | Jan-Oct 98 | Jan-Oct 97 |
|---------------------------|------------|------------|
| Organic Dyes and Pigments | 624 | 646 |
| Synthetic Pigments | 3,903 | 998 |
| Zinc Oxide | 1,533 | 2,362 |
| Oxygen | 643,536 | 701,764 |
| Hydrochloric Acid | 143,696 | 152,791 |
| Sulphuric Acid | 194,731 | 268,720 |
| Soda Ash | 405,249 | 449,270 |
| Caustic Soda | 248,972 | 266,691 |
| Nitrogen Fertilisers | 363,883 | 594,700 |
| Phosphate Fertilisers | 91,403 | 105,900 |
| Synthetic Rubber | 17,487 | 24,624 |
| Ethylene | 123,302 | 118,183 |
| Propylene | 110,520 | 122,845 |
| Pesticides | 5,108 | 7,447 |
| PVC | 102,916 | 109,025 |
| Polyethylene | 65,276 | 56,931 |
| Varnishes and Paints | 29,429 | 29,381 |
| Detergents | 49,305 | 24,948 |
| Synthetic Fibres | 19,402 | 14,162 |

The prospects are less positive for the other OXO alcohol producer SOLVENTUL at Timisoara which has been practically closed since late 1997, with the OXO, HDPE, H₂O₂ and phthalic anhydride plants stopping output. The OXO plant at Timisoara is based on cobalt catalyst which is not competitive these days.

Converting the plant to low pressure rhodium based technology at Timisoara, as being implemented at the Oltchim plant, is seen as the only effective route forward. However, this would require substantial investment which without a foreign backer is unlikely to be provided in the current climate.

Bulgarian demand for derivatives produced from olefins has fallen over the past year, partly as the result of global factors as the crises in Asia and Russia. The impact of the Asian and Russian crises and falling international prices on chemicals, which are a major Bulgarian export item, have contributed to the industrial decline in the country. Sales of chemical products fell by 44% in the first nine months of the year and oil products by 42%, shadowing lower global oil prices.

Methanol & fertilisers

In the first three quarters of 1998 methanol exports from Yugoslavia totalled 57,351 tons compared to 60,748 tons in the previous year. Acetic acid

exports were also stable at 56,020 tons in Q1-Q3 1998 against 50,186 tons in Q1-Q3 1997.

The Slovenian government has sold half of its stake in Petrol, together with 68% of its holding in petrol trader Istrabenz, to three state owned funds. The significance of the sale of shares in Petrol and intention to sell the remaining shares in the company is that it raises more questions about the long term survival of the methanol producer and oil refiner Nafta Lendava. Petrol.d.d is the majority owner of Nafta Lendava. Nafta's methanol capacity stands at 165,000 tpa and there are also production facilities located at the site for formaldehyde. In 1997, Nafta produced 150,000 tons of methanol of which about half was exported.

| Yugoslav Chemical Production (unit-tons) | | |
|---|-------------------|-------------------|
| <i>Product</i> | <i>Jan-Aug 98</i> | <i>Jan-Aug 97</i> |
| Sulphuric Acid | 147,934 | 115,342 |
| Nitric Acid | 135,351 | 157,663 |
| Caustic Soda | 47,849 | 40,334 |
| Phosphate Fertilisers | 73,042 | 98,946 |
| Nitrogen Fertilisers | 445,759 | 432,184 |
| PVC Powder | 37,720 | 28,688 |
| Polyethylene | 77,824 | 72,077 |
| Cellulose Fibres | 5,785 | 6,884 |
| Synthetic Fibres | 1,732 | 1,591 |
| Detergents | 40,755 | 41,756 |
| Coating Agents | 14,690 | 14,498 |
| PVC Floorings | 9,264 | 7,991 |

In late 1998 Nafta Lendava was given a reprieve after closure appeared imminent. The government reached an agreement with Petrol d.d to keep the plant running for the next twelve months whilst modernisation scenarios are examined. Petrol has been seeking support from the government in the running of the refinery, in addition to feedstock subsidies for methanol production. Petrol was also seeking guarantees that the government will not divest its 45% share of equity in Nafta during the re-assessment period. Now the government's shares in Petrol have been sold there are big question marks about the future survival of production at Lendava.

The Hungarian company MOL has cut gas supplies to NIS in Serbia due to outstanding debts of around \$20

million. NIS has a twenty year contract with MOL for gas supplies. Serbia has put forward the idea of offering stakes in several companies to its Russian partners as compensation for the accumulated debt for natural gas imports. Companies put forward include Zorka Fertilisers and the viscose fibre producer Viskoza Loznica. Zorka Fertilisers, located at Sabac, is looking for a potential investor in accordance with Federal and Republic Ownership Transformation Act.

Zorka produces NPK fertilisers, superphosphates, sulphuric acid, phosphoric acid, and plant protection agents. Further details about the company can be obtained from Mr Todor Stepanovic, Director, DD "Zorka" Mineralna Dubrava, Narodnih heroja 1, Sabac 15000, Yugoslavia. Tel + 381 333-189, Fax +381 15 324 780, 345-013, E-mail: zorkamdj@EUnet.yu.

Chlorine For approximately \$19 million BorsodChem has acquired 51% of the Romanian chlorine producer Chimcomplex S.A. at Borzesti (see issue no 96, December 1998). A raw material co-operation agreement has already existed between the two companies for more than a year. Chimcomplex has a chlorine capacity of 100,000 tpa, of which 40,000 tpa is delivered to BorsodChem's plant at Kazincbarcika in Hungary.

Other chemicals In the Federal Republic of Yugoslavia Petrohemija at Pancevo signed an agreement at the end of last year with a Chinese partner for a project for the production of carbon fillers.

| Croatian Chemical Output (unit-tons) | | |
|---|-------------------|-------------------|
| <i>Product</i> | <i>Jan-Oct 98</i> | <i>Jan-Oct 97</i> |
| Ammonia | 263,446 | 330,755 |
| Nitric Acid | 187,780 | 239,554 |
| Other Inorganic Acids | 173,023 | 216,591 |
| VCM | 31,705 | 27,754 |
| Carbon Black | 18,665 | 20,144 |
| Plant Protection Agents | 5,558 | 7,351 |
| Urea | 234,765 | 307,059 |
| Compound Fertilisers | 392,776 | 340,248 |
| Polyethylene | 124,814 | 120,340 |
| Synthetic Resins | 103,112 | 96,089 |
| Commercial Medicines | 1,118 | 1,103 |
| Soap | 231 | 309 |
| Detergents | 34,472 | 32,316 |
| Printing Inks | 912 | 1,194 |
| Other coating materials | 24,722 | 25,403 |
| Natural & synthetic glue | 8,213 | 9,438 |

This is intended to meet the demand of the Yugoslav rubber industry. Under the contract, signed at the Yugoslav Chamber of Commerce representation office in Beijing, a future Petrohemija plant is to produce 15,000 tonnes of carbon fillers a year and thus meet 80% of the domestic demand for this raw material which has so far been imported. The investment worth \$21.8 million will be implemented through the crediting of exports of Chinese technology. The implementation of the deal will be monitored by a Chinese bank and the Beogradska Banka bank of Yugoslavia.

At the start of January the electricity authority of Bosnia-Herzegovina and the Tuzla power plant cut off the supply of electricity and steam to the Polihem and Dita chemical plants in Tuzla. Production at Polihem came to a

standstill as it was threatening the safety of the residents. As a result, this left large volumes of chlorine and propylene unattended, and even about 50 tons of ethylene oxide was exposed. In addition to the chemical plant Tuzla has three 'major environmental offenders', consisting of a coal-fired power plant, salt mines running beneath much of the city, and textile mills which are discharging industrial wastes directly into the Spreca River.

BALTIC STATES

The Butinge Oil Terminal is now mechanically complete for early oil export at partial capacity of 4 million tpa. Full capacity of eight million tpa is expected to be reached in 2000. The target date for the first shipment is February 22. In the interim period, the system will be commissioned (by mid-February) and all necessary environmental, safety and other permits should be obtained. Williams and the government of Lithuania will be initialising their investment agreements in mid-February. The official closing of the investment is planned for March 8. That date should see the signing of agreements and a transfer of investment funds and papers totalling \$150 million. Williams should become a shareholder in the Mazeikiu Nafta Corporation on March 9, following a shareholders meeting. Mazeikiu Nafta's shareholders will convene a general meeting on March 9 to vote on the concern's new by-laws and to elect a new six-member council of monitors. Four members of the council will represent the government and two will represent Williams.

Mazeikiu Nafta anticipates a year-end loss for 1998 of 25.6 million lits. In 1999, the company anticipates a loss of 23.1 million lits, with the first profit of 57.9 million lits projected for 2000. Mazeikiu Nafta expects to take \$395 million in loans in 1999, with no borrowings planned for 2000 and 2001. In 1998, the company was extended a total of \$114.4 million in new loans.

| Baltic States-currencies Jan 25 th 1999 | | | | |
|--|----------|---------|---------|--|
| Country | Currency | \$1 = | EURO= | |
| Estonia | Kroon | 13.5018 | 15.6378 | |
| Latvia | Lats | 0.5702 | 0.6604 | |
| Lithuania | Litas | 4.0018 | 4.6346 | |

A consolidated money flow forecast has been prepared by Williams International and included into the prospectus for Mazeikiu Nafta's new issue of 341.5 million lits worth of face-value shares. The forecast was based on the presumption that the three merged companies, which are the Mazeikiu based oil refinery, Naftotiekis oil

transportation company and the oil terminal in Butinge, will operate 12 months per annum, the annual inflation will stand at 5%, and prices of oil and oil product transportation by pipeline will remain unchanged for four years.

In the fertiliser sector AB Lifosa at Kedainiai in Lithuania increased turnover by about one third to 401.3 million lits in 1998 from 1997, and achieved 44 million lits in net profits according to preliminary data. By comparison, Lifosa achieved a turnover of 309.4 million lits in 1997 and netted 6.1 million lits. A factor that helped improve turnover and profits was the switch from MAP to DAP production at full capacity of 440,000 tpa. Hitherto, Lifosa had produced purely MAP but decided to switch to DAP in late 1997 due to market based factors. Lifosa also has capacity to produce 200,000 tpa of phosphoric acid and 500,000 tpa of sulphuric acid. In 1998, Lifosa located a new market in Turkey where it sold 150,000 tons of fertilisers, 30% of its production. Lifosa plans to boost its turnover to around 0.5 billion lits in 1999. The company has a share capital of 220.8 million lits, with the main shareholders being Danas Tvarijonavichuis with 49% and Industech of Italy with 18%. AB Lifosa has a 49% share in the joint venture UAB Kemira-Lifosa which started production last year.

In Latvia, Glasseiden Oschatz GmbH has now finalised plans to invest 1.3 million lats in the Valmieras Stikla Skiedra (Valmiera Fibreglass) in 1999. The construction of a new fibreglass production facility at the plant was started recently and completion is expected by the end of 2000. In 1998, Valmiera Fibreglass's sales were 12.7 million lats, with the profit estimated at 960,000 lats. Turnover was 30% higher in 1998 compared to 1997.

COMMONWEALTH OF INDEPENDENT STATES

Russia

Manufacturing prices grew 25% in Russia in 1998, with respective month on month rises for industrial producers of 5.9%, 5.1% and 7% for October, November and December. Price inflation in industry has been significantly more mild than other parts of the economy but even so the substantial reduction in imports and the increased demand for Russian products is starting to drive prices upwards.

The gradual decline of the rouble has continued since December and now levels of 23 to 24 represent the norm against the dollar. The instability of the currency is making it very difficult for domestic chemical prices to keep pace with international prices. The trend continues where small traders are seeking to buy products directly from the plants at very low prices before selling them on as exports, with good margins.

Refining

Rising crude oil exports out of Russia balanced against declining extraction over the past few years is asserting supply pressure on domestic refineries. In 1998 Russia exported 134.0 million tons of crude from total extraction of 303.31 million tons. This compared against 126.9 million tons exported in 1997 from total extraction of 305.6 million tons. Those refineries which have broken away from the major oil companies, such as the Moscow and Angarsk plants, are faced with a particularly difficult situation in securing product for processing. Refiners which do belong to oil companies are also facing some problems. Omsknefteorgsintez, which is part of the Sibneft group, has been offering tolling facilities at the refinery for the processing of oil products, indicating the low level of throughput.

LUKoil's performance in 1998, as Russia's leading oil producer and now important petrochemical company, reflected an unprecedented drop in crude oil prices, the domestic financial and banking crisis and high taxation. A combination of the above factors has helped prevent LUKoil from meeting all targets set for 1998. In the oil sector, cash constraints provoked reduction in drilling and exploration activities, building and wells repair. Nevertheless, the Board of Directors noted that in an adverse financial environment LUKoil has managed to carry out cost savings and business rationalisation measures. This allowed, to a considerable extent, to compensate for the negative impact of the external factors and ensure the fulfillment of the 1998 targets and budget figures. Profit before taxation of LUKoil (main subsidiaries included) is expected to reach 4.4 billion rubles against 4.2 billion envisaged by the 1998 budget.

Refining of crude oil at LUKoil's two refineries, and processing at NORSI Oil, amounted to 19.1 million tons in 1998. The depth of refining increased from 76.2% in 1997 to 79%. This figure exceeds the Russian oil sector average of 65.4%. Production of motor gasoline increased by 86,600 tons, high quality diesel fuel by 285,600 tons, lubricants and its bases by 5,000 tons. The upgrade of the catalyst cracking unit at the Perm refinery has been completed. This will allow to raise petroleum products' output from 400,000 to 700,000 tpa. In 1998 3.5 million tons of petroleum products were exported.

Olefins

Feedstock costs have been rising as the rouble prices have been moved up in line with devaluation. Naphtha prices have been heard in the range of \$80-90 per ton, only 10-15% lower than European prices. Problems are faced with feedstock supply at the Angarsk cracker, and also the shortages facing the Moscow refinery could threaten propylene production. However, other plants such as Nizhnekamskneftekhim and Kazanorgsintez in Tatarstan are functioning as per normal. ZAO Land has secured supplies of propylene from Nizhnekamsk, at prices claimed to be lower than directly from Nizhnekamskneftekhim. Further details from Natalya Vasilevna, ZAO Land, Tel/Fax + 7 8432 38 84 43, E-mail: land@kai.ru. Kazanorgsintez is processing ethylene and propylene at rates similar to this time last year.

Cracker utilisation at Tomsk Petrochemical Combine is low with the continuing problems of debts preventing sufficient naphtha purchases. ZAO "Azhar A" has been seeking to arrange purchases of 1,000 tons of propylene a month in cash with the product destined for use at Tomsk. Further details from Sergey V. Bratushev, Deputy Director, +7 3822 21 42 38, Fax +7 3822 21 13 72.

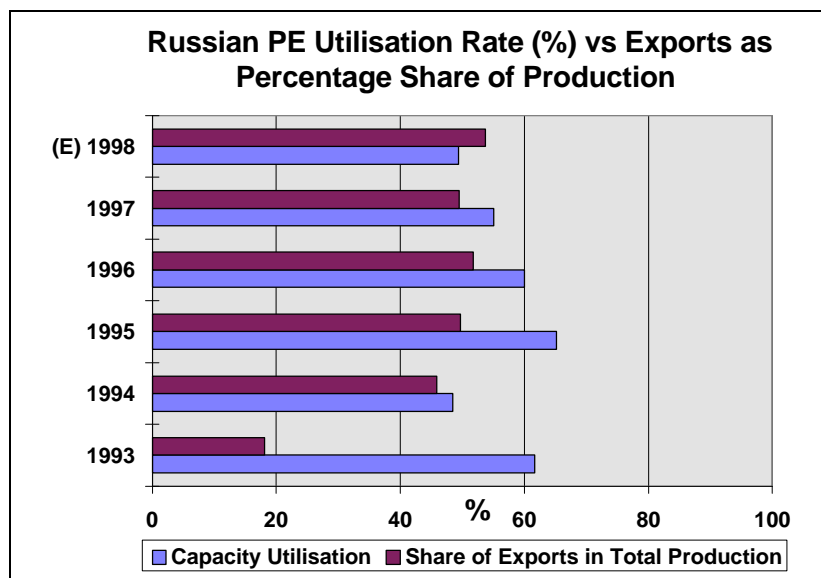
At the end of December 1998, the Bashkortostan government decided to continue the economic experiment for petrochemical companies in the republic for this year that should ensure that there is sufficient energy for the olefin producers. Companies such as Ufaneftekhim, Salavatnefteorgsintez and Ufimskiy NPZ are buying electricity from the state energy company Bashkirenergo at lower than normal cost prices. This is taking place under the system of bilateral trading relations where Bashkirenergo buys mazut (fuel oil) in exchange from the refineries, also at lower than normal cost prices. Consequently, it means that the petrochemical companies have sufficient energy at lower prices to maintain production rates whilst in return Bashkirenergo receives mazut supplies. These price measures have been approved by the Bashkortostan Ministry of Economy and Anti-Dumping Policy, and also the government department for the development of the chemical industry.

Polyethylene

LDPE prices in Russia have been climbing since the start of the year. Numbers as high as 11,000 roubles per ton are being heard from Ufaorgsintez. These prices are still marginally below West European price levels. Even so, there are numbers below these levels to be found. In Bashkortostan, trading company OOO "Paritet" was offering LDPE at 9,000 roubles per ton from Salavatnefteorgsintez. Further details from Kiril V. Vadikov, General Director, OOO "Paritet", Tel +7 3472 37 33 20, Fax +7 3472 37 33 20, E-mail: paritet@ufa.ru.

As for projects the investment programme for polyolefins has come to a standstill and little progress is being seen at the moment. The project agreement for a 120,000 tpa LLDPE plant at Kazan has been delayed indefinitely by Kazanorgsintez due to the economic environment. Kazanorgsintez signed a contract with the German company Salzgitter Anlagenbau on June 5 1998, of which the contract value was placed approximately at DM200 million. The contract with Salzgitter Anlagenbau stipulated mixed financing but a

loan from the German bank West LB is now in question. If Hermes Kreditversicherung is unwilling to provide backing there seems little chance in the short to medium term that the project will advance.



During the fourth quarter of last year and the start of 1999 there has been extended effort by Russian traders and producers to sell LDPE into West Europe. This export push has been cited as a factor, albeit marginal, in the price erosion of LDPE pricing. In reality this is one of a number of factors and cannot be blamed solely on the Russian crisis. In fact, Russian domestic polyethylene consumption has not declined significantly since last year. The major factor that has pushed more Russian LDPE into the European marketplace is the lower volumes of product being imported by China from the Angarsknefteorgsintez plant in East Siberia. Although China is still a major importer of Russian LDPE volumes have fallen over the past twelve months which has created the problem for Russian producers, via their trading subsidiaries, to find new markets.

For both LDPE and HDPE Russian producers have become more dependent on foreign trade in the 1990s in order to maintain utilisation levels. As the most important of the thermoplastics, polyethylene has seen an increasing surplus above domestic requirements through the 1990s. Exports in 1993 constituted 18% of total production and this had risen to approximately 50% by 1997. Significantly, total polyethylene consumption over this period has declined in much greater proportion than the level of production.

CIS-currencies Jan 25th 1999

| Country | Currency | \$1 = | EURO = |
|------------|----------|---------|----------|
| Azerbaijan | Manat | 3950 | 4574.89 |
| Belarus | Rouble | 282500 | 327191.5 |
| Kazakhstan | Tenge | 85.0900 | 98.5513 |
| Russia | Rouble | 23.450 | 27.15999 |
| Ukraine | Hryvnia | 3.9875 | 4.6164 |
| Uzbekistan | Sum | 545.000 | 631.219 |

Due to the expansion of trade for polyethylene some of the producers have been able to offset the falls in consumption from the domestic processing sector, and also the presence of imported product. Polyethylene imports in Russia have been used to some degree in the manufacture of gas pipes. This application, amongst others, has been part of the reason why Russian producers have over been pushed into the export market.

Of the polyethylene producers Stavropolpolimer in southern Russia and Angarsknefteorgsintez have been the most dependent on export trade. Other important producers, such as Kazanorgsintez and Ufaorgsintez, have been traditionally more active in the domestic market.

In the merchant sector, polyethylene buying is being done by small trading companies with product filtering through eventually to domestic consumption. However, some material is finding its way into the export market. LDPE and HDPE produced at Kazanorgsintez is in good demand. Energokhimkomplekt was seeking up to 500 tons of LDPE at a price of 9,000 roubles per ton, inclusive of VAT and delivery to Angarsk. Further details from: Aleksey O. Volodin, OOO "BPTO Energokhimkomplekt", Tel +7 3951 55 54 34, Fax +7 3951 55 88 12. LDPE from Salavatnefteorgsintez is being offered at 9,900 roubles per ton, further details can be obtained from Rustam D. Vaykov, E-mail: rb@mail.ru.

Olefin derivatives

Whilst numerous olefin intermediates are in surplus some products are not proving easy to secure. For example, styrene is in good surplus in Russia whilst polystyrene remains in very short supply. Styrene, produced at Nizhnekamsk, was being offered by one Russian trading company OOO "Agro" at a price of 3,900 roubles per ton. Further details from Galina Sizova, OOO "Agro", Tel +7 8432 43 22 54, Fax +7 8432 43 22 54, E-mail: liga@mi.ru. Conversely, polystyrene prices have been keeping pace with international levels and due to the supply/demand

imbalance in Russia prices are often higher. Since the start of the year imported polystyrene of Korean origin was being offered at \$970 per ton out of Klin (in the Moscow Oblast) and Indian product at \$1,050 per ton. As for other products, not all plants are receiving the raw materials required for production due to regional availability. In January Kotlas Chemical Plant in the Komi region of northern Russia was struggling to find suppliers of ethylene-diamine, phenol, orthocresol, tricresol and polystyrene.

Ethyl cellulose and propylene oxide are in surplus at Nizhnekamsk; ethyl cellulose production at the complex was about 10,000 tons in 1998. Synthetic rubber from Nizhnekamsk is available for both the domestic market and export in volumes of 500 to 1,000 tons per month. In the OXO markets, ZAO "Neftekhimik-Oxo" is seeking customers for up to 500 tons of normal butanol from Perm. ZAO "Neftekhimik-Oxo" is also supplying phthalates from plants in Russia at Roshalsk, Kuskovsk, and Novokhim at Novosibirsk. Further details from Mr Andrey B Bikov, Head of Marketing, ZAO "Neftekhimik-Oxo", Tel +7 3422 908-920, 908-620, Fax +7 3422 908-116, 908-155, E-mail: oilchim@pi.ccl.ru.

Rosplastproduct is offering 500 tons of polypropylene (Kaplen), produced at the Moscow refinery, at 9,100 roubles per ton. Further details from E F. Didora, Commercial Director, Rosplastproduct, Tel +7 095 415 2100, Fax +7 095 415 3374, E-mail: plastic@pol.ru. Technika is offering polypropylene produced at Tomsk Petrochemical Combine at 8,300 roubles per ton EXW Tomsk, and methanol at \$45 per ton on the same basis. The contact is B R. Akhmerov, Technika, Tel +7 3822420080, Fax +7 3822 421331, E-mail: root@stc.tomsk.su.

PVC PVC demand in Russia is similar to this time last year although fewer cash sales are being done. VCM prices are very low at under 4,000 roubles per ton due to the surplus over PVC production. PVC prices have been rising gradually by contrast. PVC resins m Sterlitamak were being offered at 7,000 roubles per ton. However, some buyers have been seeking prices as low as 4,500 roubles and have offered to pay in cash. Uralkhimprom is offering PVC suspension grade for which it is quoting a price between 5,850 roubles and 6,600 roubles per ton. Uralkhimprom is supplying PVC from Kaustik at Sterlitamak and is also offering VCM from the plant, where capacity is greater than PVC capacity. Calcium chloride is being offered by Uralkhimprom at 2,000 roubles per ton.

Plastics A consortium of Italian banks has granted a loan worth \$36 million to the Tyumen Oblast in West Siberia for the construction of a packaging materials' plant. Whilst the local regional oblast will be responsible for paying off the debt the Russian government will guarantee the deal. Accordingly, imports of packaging materials into the oblast amount to around \$2 million per annum for perishable goods. Thus, producing packaging materials locally will help to reduce the need for imports and will help to increase the shelf-life of agricultural produce.

The company Agro is selling polyethylene pipes produced by Kazanorgsintez intended for gas pipelines. Since the devaluation of the rouble demand for domestically produced polyethylene pipes has increased dramatically. Further details from Galina T. Sizova, General Manager, Agro, Tel + 7 8432 49-52-56 Fax +7 8432 49-52-56. Polyethylene pipes amount to about 9% of the total output of Kazanorgsintez, compared to high and low density polyethylene which together account for just under 60%.

Chlorine In East Siberia, OAO "Usolyekhimprom" is offering PVC, epoxy resins, calcium carbide, trichloroethylene, caustic soda, calcium chloride, epichlorohydrin, and hydrogen peroxide, etc. Further details from Marketing Department, OAO "Usolyekhimprom", Tel + 7 57946, E-mail ximprom@mail.tehserv.irtel.ru.

Uralkhimprom is acting as a trading representative for caustic soda sales from Kaprolaktam at Dzerzhinsk and Kirovo-Chepetskiy Chimkombinat. Further details from Aleksey V. Korablev, Uralkhimprom, Tel +7 3432 707239, Fax +7 3432 707240, E-mail: chim@diapup.mplik.ru. NaOH-46% solution produced at the Sayanskkhimprom plant at Zima, also in East Siberia, is being offered in quantities of up to 3,000 tons per month at a price of \$73 per ton DAF. Further details from Oleg Vorovskii, Director, Ural, Tel + 7 213 33112, Fax +7 213 33077/7 3952 259 402, E-mail: GVV@angara.ru. Soda ash prices in Russia are ranging from 750 roubles to 850 roubles per ton. Despite domestic availability of perchloroethylene in Russia product not always does the Russian specification comply with customer requirements and thus there have been efforts to import European produced perchloroethylene. Enquiries for Russian perchloroethylene have been coming from Nafta-Ukraine.

Methanol & fertilisers Moskontraktprom is offering product from AOOT "Novomoskovsk Azot". Methanol is being quoted at \$58 per ton or \$93 ton CIF prebaltic port, and urea at \$58 FCA Novomoskovsk. Further details from A.V. Vagirov, Group "Moskontraktprom", Tel +7 095 943 87 40. Association Kuper Technika is offering polypropylene, polyethylene and methanol out of the Tomsk Petrochemical Combine in West Siberia. Further details from B.R. Akhmerov, Tel +7 3822 420080.

Tatarskoye Aktsioneroye Proizvodstvennoye Predpriyatie is offering ammonium nitrate produced in Tatarstan produced at Menzilinsk. Further details from Svetlana S. Nikonova, Commercial Director, Tel +7 85512 5-84-07, Fax +7 85512) 5-84-01, E-mail: takpovc@vkptus.oilnet.ru.

Aromatics & derivatives

In the first ten months of 1998 South Korea imported 41,016 tons of caprolactam from Russia compared to 68,248 tons in the same period in 1997. In the Kuzbass, Kemerovo Azot is operating at very low rates due to feedstock problems which is affecting the production of caprolactam. Gas and benzene deliveries have been reduced and almost stopped from the supplier Gazoneftekhimicheskaya. Kemerovo Azot has been in consultation with the local fibre producer in Kemerovo, Khimvolokno, as to finding a solution to the raw material shortfall. Supply contracts have been under review with Gazoneftekhimicheskaya and there are efforts to secure gas and benzene from regional sources.

In January China Manzhouli Inter Trading Co was seeking orthoxylene 1,000-5,000 tons, n-butanol 500-1,000 tons, LDPE 500 tons, caprolactam 500 tons, methanol (5,000 tons). Market prices for toluene in Russia stand at around 2,600 roubles per ton. ZAO "LUKoil-Nizhniy Novgorod" is offering toluene at 2,535 roubles per ton with VAT, for delivery in Russia and Belarus. For deliveries elsewhere transport costs have to be added. Further details from Vadim Korovchenko, ZAO "LUKoil-Nizhniy Novgorod", Tel +7 8312 34 12 37, Fax +7 8312 30 26 43, E-mail: ed@lucoil.nnov.ru.

Traders Spektur are looking for 120 tons per month of phthalic anhydride for which in return it is offering product from AO "Gaz", or paint materials from OAO Lakokraska KZ "Victory of the Workers" at Yaroslavl. Further details from Dimitry Yakovlevich Solovyev, OAO "Spektur", Tel +7 852 72-71-24, Fax +7 852 22-46-52, 72-71-24. Other sources of phthalic anhydride are obtainable from NEK in the Perm Oblast, Fax + 7 3422 62-47-40, 62-84-74, E-mail: nek@permonline.ru.

From the Novomoskovsk Orgsintez complex maleic anhydride was being made available in January at a price of \$680 per ton, for quantities of 60 to 120 tons per month. Further details from Elena Nikonova, Tel +7 095-916-60-79, 916-60-99, Fax +7 095 916-61-09, E-mail: etxim@cityline.ru.

Pharmaceuticals

OAO "Nevinnomysk Azot" is offering a new product dimethylvinilcarbanol (DMVK) for the pharmaceutical industry. Further details from Nikolay S. Marin, OAO "Nevinnomysk Azot", +7 86554 4 47 70, Fax +7 86554 3 92 28, 3 09 23, E-mail: edam@cityline.ru.

ICN Leksredtsvo at Kursk reduced production of pharmaceuticals between November and January due to the Russian economic situation and the increase in production costs. Efforts are being made to generate more sales through aggressive marketing in the Kursk region. Similar reductions in production were recorded at other ICN subsidiaries in Russia, particularly the Polifarm plant in the Chelyabinsk Oblast where sales have fallen sharply. The lack of payments from public sector clients, the population's reduced purchasing power, the constant increase in the dollar's value against the rouble, and stricter demands from creditors regarding cash payments have all contributed to Polifarm's losses. Ceasing production at the Polifarm plant and the ICN Oktabyr plant in St Petersburg has saved on purchases of raw materials. Although this means that demand for intermediates has stopped for the time being reducing high inventories is considered to represent about the only way forward.

Belarus

In spite of the currency devaluation the gross domestic product (GDP) of Belarus rose by 8% last year, with industrial output growing 11% and direct investment by 16%. However, the government will try to prevent the currency from devaluing more than the Russian rouble, whilst also limiting the money supply and reducing inflation. The Belarussian thermoplastic producer Polimer has not changed dollar prices since October. Polimir is still quoting prices on an FCA basis Novopolotsk for HDPE at \$500 per ton, acrylic fibres in the range of \$1200-1500 per ton, and polyethylene films at \$800 per ton. The trading contact is: Albert Nemtsov, Tel +375 2144 71489, Fax +375 2144 71179, E-mail: politex@real.belpak.vitebsk.by.

Ukraine

Main problems in Ukraine continue to be finding domestic customers with cash funds for purchases and in some cases it has been proving difficult to secure certain products. In the markets, a company Promvok at Dnepropetrovsk is seeking polyisoprene (SKI) and methylstyrene-butadiene rubber (SKMS). Accelerators are being offered by the Cherkassy Plant of Chemical Reagents. Further details from : Evgenii A Borkun, Deputy Director of Marketing, Cherkassy Plant of Chemical Reagents, Tel +380 472-43-22-52, Fax +380 472-43-22-52.

The company Embrol is exporting titanium dioxide from Ukraine on a delivery basis of DAF-Ukrainian frontier or FOB-ports of Black Sea. The product is packed in big-bags or sacks, manufactured by Crimean Industrial Association "Titan" (Ukraine). Further details from : Alexander Podymkin, Manager of Sales &

**JSC FIKO (Ukraine) is looking for new opportunities for
sales of titanium rolled materials**

1. JSC FIKO produces ASTM Grade 2 , Grade 5 ,Grade 9 and GOST Grade VT1-0 Grade VT6, Grade PT3V titanium ingots , sheets ,plates , bars , wire ,tubes, etc.
2. Special offer is titanium tubes and equipment for chemical industry. Dimensions for tubes are as follows: Dia. 0.5-350 mm, thickness 0.5-15 mm, max. Length 9000 mm. JSC FIKO is in position to consider offers for sub-contraction.
3. JSC FIKO can also offer TiO₂, FeTi.

Further information can be obtained from :

**JSC FIKO, 5, Druzhby Narodiv , 252 042 KYIV Ukraine.
Export Department : Tel/Fax + 380 44 268 33 79, Fax +380 44 268 3513
E-mail: Fedorov@fiko.ru.kiev.ua.**

| Selected products available from Azot, Severodonetsk | |
|---|--------|
| Product | \$/ton |
| Vinyl acetate | 800 |
| Caustic soda | 120 |
| Formaldehyde technical | 170 |
| Urea in bulk | 95 |
| Ammonium nitrate | 85 |

JV SPS in Ukraine is offering a wide range of products from the Azot plant at Severodonetsk. These prices do not include transportation and are claimed to be lower than buying direct from the plant. For further details contact : Commercial department, SPS, Tel +7 380 572 43-08-36, 14-10-32, Fax +7 380 572 14-92-70, E-mail: sts@lincom.kharkov.ua. Polyprom in Ukraine is trying to buy equipment for the production of polypropylene sacks. Zarya at Rubezhnoye is offering a wide range of

chemicals, including pentaerythritol, sodium formate and oleum, and derivatives from these products. Further details from A.L. Bezdolya, Head of Marketing Department, Zarya, Tel +7 6453 7 6271, Fax +7 6453 95178, E-mail: Zarja@Sovamua.com.

Kazakhstan

In Kazakhstan, the Supreme court has declared the agreement invalid on selling part of the property of phosphate producing enterprises signed between the department for state property and privatisation and the company Texuna Chemicals in March 1998. The foreign company took the obligation to increase output, repay salary debts, and invest in production. However, the obligations were not fulfilled and the government has to seek another investor for the phosphate enterprises. Companies coming up this year for privatisation include the fibre producer Kostanai Khimvolokno which has plans for developing polyester fibre projects.

Chemical project possibilities in Kazakhstan in the short to medium term are most likely to be focused on the existing chemical plants and refineries, such as the Shevchenko Plastics' Plant, the Atyrau Chemical Plant, Shymkentnefteogintez, and Khimprom at Pavlodar. Of these plants the Shevchenko Plastics Plant at Aktau is the largest petrochemical complex with a 100,000 tpa ethylene cracker, and capacities for 350,000 tpa of ethylbenzene, and 220,000 tpa of polystyrene. However, these facilities have worked no where near full capacity in the 1990s, due in part the loss of traditional markets, and in part to feedstock shortages. On the one hand the plant is dependent on imported benzene to produce ethylbenzene, and finance to pay for these imports is not always available, and on the other hand there is often a shortfall in ethane deliveries from the Tengiz field to the ethylene cracker.

Modernisation plans at Atyrau are still on hold with the ownership position still unclear. Within the last few months, an unknown share-holder Fixoil Establishment, which owns 29.5% of the refinery's shares, has started to exert more influence. Conversely, the share-block of the Swiss company Telf AG, which was recently buying the refinery's stocks, has diminished considerably. The Atyrau Oil Refinery (AOR) processed 2,700,900 tonnes of crude oil in 1998, down from 4,108,600 tonnes in 1997. The refinery produced 324,100 tonnes of gasoline (501,700 tonnes in 1997) and 834,500 tonnes of diesel fuel (1,324,900 tonnes in 1997). According to the acting director of the refinery, the reduction was due to the dramatic drop in oil product prices in Russia caused by the financial crisis. As a result, AOR's products became non-competitive and sales fell.

1998 is characterised as "the most difficult year" since 1953, with the refinery dismissing 800 workers in 1998 and further reductions are expected in 1999. At present, the refinery owes 2.988 billion Tenge to its creditors. Its payables total 3.65 billion Tenge and wage arrears total 65 million Tenge. Nonetheless, the refinery paid about 1.5 billion Tenge in taxes in 1998. The Director of the refinery has stated that revamping of facilities will begin in 1999. A feasibility study is being completed by Japan's Marubeni Corporation, (which earlier committed to restructure the AOR) and will be presented to AOR's management in early February.

Kazakhstan's import requirements for approximately 20,000 tpa of technical sulphuric acid have been almost eliminated with the start-up of the new production line at the Aura Joint-Stock Company. The production line became operational in the latter part of last year which was designed by the National centre for complex mineral resources processing at the Karaganda chemical-metallurgic institute. Among Aura's customers are the Ispat-Karmet metallurgic plant, the Kazakhmys concern and other industrial enterprises of the republic.