

# CIREC

## MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

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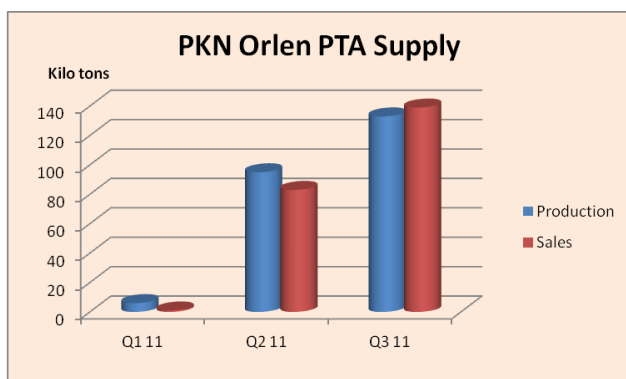
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## CENTRAL & SOUTH EAST EUROPE

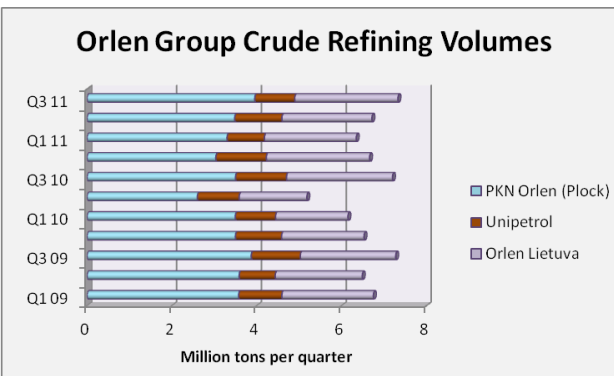
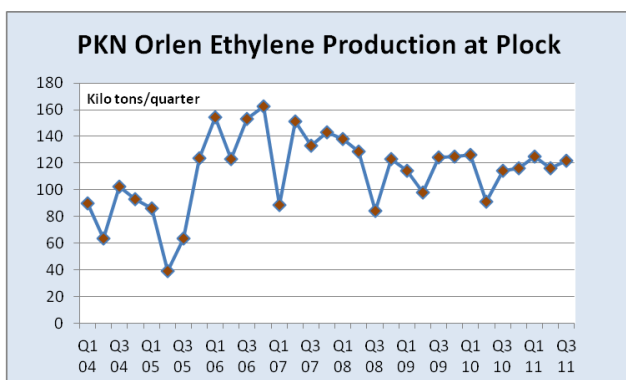
### Petrochemicals



#### PKN Orlen Jan-Sep 2011

The petrochemical division once again proved to be Orlen's best performing sector in the third quarter as in the second, with the refining division by contrast incurring a loss. PKN Orlen's group divisional profits from petrochemical operations amounted to zł 367 million in the third quarter this year, around two thirds or zł 225 million higher against the same period in 2010. The profits in petrochemicals were up due in large part to the changes in prices for products and their impact on inventory valuation. At the same time an important contribution has been made by the respective introduction of the new paraxylene and PTA plants at

Plock and Wloclawek. These new facilities have helped offset the impact of lower petrochemical margins for the group and changes in foreign exchange rates. Next year Orlen should see the full benefits of the PX-PTA chain.



#### PKN Orlen Petrochemical Sales (unit-kilo tons)

Product	Jan-Sep 11	Jan-Sep 10
Ethylene	215	223
Propylene	157	148
Polyethylene	336	351
Polypropylene	293	301
Ethylene Oxide	21	11
Ethylene Glycol	54	42
Butadiene	43	61
Phenol	26	25
Acetone	16	15
Benzene	239	204
Toluene	20	30
Orthoxylene	1	6
PVC	253	220
PTA	223	0

The introduction of the paraxylene and PTA plants has also meant that physical sales volumes for the Orlen group have increased. To some extent this has helped counterbalance lower sales of olefins and polyolefins in the third quarter, where volumes were affected by planned maintenance. Ethylene production at Plock has been stable for the last few years but is still running below full capacity. Considerations of further olefin investments at Plock have been contemplated but are not expected to be included in the group's petrochemical investment programme to be announced in the early part of 2012.

Aside the completion of the PX-PTA project, investments undertaken by the Orlen group in the third quarter included the construction of a magnesium sulphate unit synthesis gas drying installation at Anwil. PKN Orlen replaced the GT/GB power transformers at the Plock cracker whilst Unipetrol undertook a periodic planned shutdown at Litvinov. During the third quarter the division's CAPEX was lower by zł 166 million and amounted to zł 220 million.

#### Orlen Group refining Q3 2011

PKN Orlen's refinery division incurred a net loss of zł 258 million (\$81.4 million) in the third quarter due to lower refining margins and the

weakness of the zloty, which increased its debt burden and costs. In addition to the thin margins, PKN Orlen also was affected from a tightening Ural/Brent spread making its production less profitable. PKN Orlen refines cheaper Urals crude but prices the oil products based on higher quality and more expensive Brent oil. SOCAR in Azerbaijan and PKN Orlen have reached an agreement on deliveries of Azerbaijani oil to Unipetrol.

#### **Litvinov 2011 shutdown**

Total capitalised expenditures reached over Kc 800 million in Q3 11 and additional Kc 500 million is estimated in Q4 11.

#### **Main investment projects comprised**

##### **Refining**

Modification of NRL flare system; revamp of underground cooling water pipelines; modification of new hydrocracking unit

##### **Petrochemicals**

Replacement of coldbox for deep cooling selective replacement of steam-cracker turbines, pumps and compressor to increase efficiency.

Next cyclical turnaround is scheduled in Kralupy refinery in 2013 and again in Litvinov site in 2015.

The cost of the agreement is \$67 million, and now means that trade between the two companies in the past year has totalled approximately \$801 million. Overall, refining volumes for Orlen's facilities in Poland, Czech Republic and Lithuania remained stable during the third quarter despite a shutdown at Litvinov.

#### **Unipetrol, Jan-Sep 2011**

Unipetrol posted an overall Kc 128 million loss for the third quarter in 2011, attributed to the weak economic environment and a shutdown at Litvinov. Unipetrol started a scheduled shutdown at the Litvinov refinery on 1 September, and production was not restarted until 8 October. The reasons for the shutdown include periodic maintenance of the facilities and the need to undertake a number of investment schemes that can only be undertaken when the facilities are out of operation.

Revenues for Unipetrol in the third quarter amounted to Kc 24.07 billion, below expectations of Kc 24.38 billion but nonetheless 7% up on the same period in 2010. The EBITDA dropped 57% to Kc 505 million, although results were helped to some extent by Kc 100 million of income from carbon credits. In addition, Kc 236 million was returned by the European Commission for a fine previously charged for being part of a synthetic rubber cartel. After examination, this decision was overturned clearing Unipetrol of cartel involvement and control of synthetic rubber prices.

#### **Unipetrol's Petrochemical Sales (unit-kilo tons)**

Product	Jan-Sep 11	Jan-Sep 10
Ethylene	117	128
Propylene	31	36
Benzene	160	155
Urea	141	145
Ammonia	100	105
Butadiene	44	16
HDPE	0	0
PP	211	220
C4	177	186

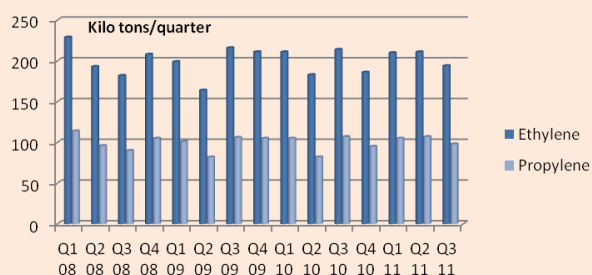
The petrochemical division for Unipetrol performed better in the third quarter than the refining division. The operating profit of Unipetrol's petrochemical division totalled Kc 270 million in the third quarter, against Kc 176 million in the same period last year. Even so the result was worse than the first two quarters in 2011 due mainly to lower petrochemical margins, a weakening of the Czech koruna against the € and lower sales of petrochemical products. The polymer division was affected moreover by the outage at Chempark Záluží.

Petrochemical sales by volume were 8% down on the third quarter last year, due mainly to a 14% fall in polymer sales. Monomer sales fell 11% due to a scheduled turnaround started in September and continued into the fourth quarter. In addition, Spolana incurred technical problems and thus lowered its off-take of ethylene and benzene from Unipetrol.

In the chemical division ammonia, sales performed best during the quarter and were only 3% down on the same period in 2010. Lower spreads on all type of benchmark olefin products resulted in lower olefin margins for the period January-September 2011 by 3% below €300 level, but this is still in-line with the long term average. The model polyolefin margin reached its bottom in August whilst the polyethylene spread remained flat and 5% below the long term average. The combined model petrochemical margin reached €543/ton.

Unipetrol's refining division reduced the level of processing by 20% from 1,182,000 tons in the 3rd quarter in 2010 to 941,000 tons in third quarter in 2011. Capacity utilisation in the third quarter for Unipetrol's refineries only achieved 74% due to the ongoing outage at Chempark Záluží at Litvinov. As a result refined products dropped 9% against the same period last year, affecting mainly diesel oil, bitumen and fuel oils.

#### **MOL's Olefin Production**

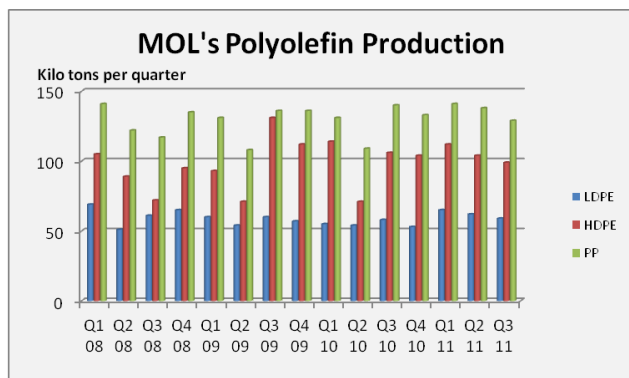


#### **MOL, Jan-Sep 2011**

Strong upstream results helped MOL post a net profit of Ft 36.4 billion in the third quarter, down 60% on the same period last year. MOL's third-quarter net income profit was also lower than the Ft 54 billion recorded in the previous quarter of 2011. In the first nine months of this year, MOL achieved a net income of Ft 183 billion, up from Ft 67.9 billion forints in the same period last year. The downstream division suffered due to high oil prices and weak refinery margins.

In MOL's petrochemical division the demand for polymer products was lower in the third quarter compared to the second quarter mainly due to the economic problems in Europe which suppressed buying. Over the three months between July and September MOL's olefin and polymer production both dropped by 6% respectively compared to the previous quarter. This was attributed partly to lower demand but also an operational breakdown at TVK which was caused by an electricity supply drop-out. Olefin sales were 6% lower against the second quarter, including a drop of 9,000 tons to BorsodChem due to a planned turnaround in August. TVK's C4 fraction sales increased by 34% due to a contract that had been signed with Synthos in Poland.

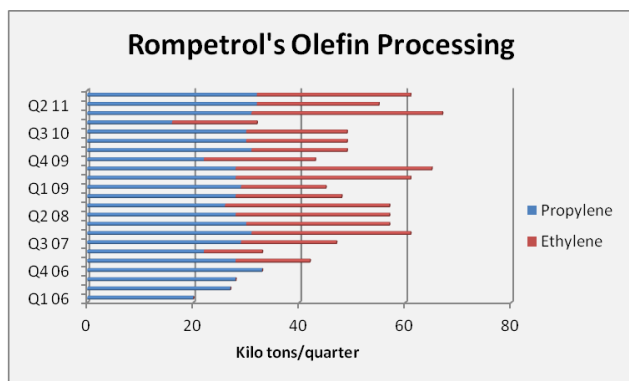
Polymer sales for the MOL group were reduced by 4% in the third quarter due mainly to the falls in polymer demand in West Europe. At the same time the group was able to increase sales in the domestic market and other regional markets such as Poland and the Czech Republic. At the end of the third quarter MOL's polymer inventory was relatively high primarily as production volumes had exceeded sales.



In the period January-September 2011, MOL's olefin production marginally exceeded 2010. Volumes last year were affected by planned turnarounds at TVK and Slovnaft. Polymer production volumes increased by 6% against last year, as the ethylene surplus at Slovnaft (which is a result of the ceasing ethylene sales) was used for LDPE production. MOL's ratio of the HDPE sales from total polymer sales decreased by 2%.

In terms of olefin sales the ethylene volume shipped by TVK to BorsodChem by pipeline was 12% (or 10,300) tons higher compared to January-September 2010.

MOL's capital expenditure in the petrochemical division totalled Ft 2.6 billion in the first three quarters in 2011 against Ft 4.8 billion last year. The main reason behind the decrease in expenditures is that there was turnaround investment in Q2 2010 at TVK, and ECOVision project was undertaken at Slovnaft's cracker in the first half of 2010.



#### **Rompetrol, Jan-Sep 2011**

Rompetrol Petrochemicals' gross revenues totalled \$292 million in the period January-September 2011, 36% higher than the same period last year. The increase in gross revenues is the result of higher prices for petrochemical products, as well as higher quantities sold. However, in the first nine months of 2011 versus 2010, the company's financial results were affected by lower margins, mainly due to unfavourable market conditions. The EBITDA reached \$5.708 million, against \$11.573 million in the same period last year. Rompetrol Petrochemicals has been increasing polypropylene exports to Ukraine, accounting for 19%

of shipments in September and October.

The increase in ethylene processed in the first nine months of 2011 is the result of HDPE unit restart in November 2010. In 2012 the modernisation programme will allow a diversification in the range of products provided, as well as an increase in the operating safety.

#### **Dioki, Jan-Sep 2011**

The Dioki group in Croatia continues to show weak performance and appears to lack the vertical integration necessary to generate consistent levels of profitability. In the first nine months of this year, Dioki recorded a loss of 226.7 million Kuna, which is 141 million more than in the same period last year. The group's management attributed the losses to the high costs involved with the VCM plant at Krk. Other factors affecting performance included reduced production due to insufficient working capital and forced payments to INA.

Total group revenues for Dioki amounted to 1.13 billion Kuna in the first nine months of 2011, which reflected a 23% fall over last year. At the same time, total costs fell by 16% and amounted to 1.36 billion Kuna. The

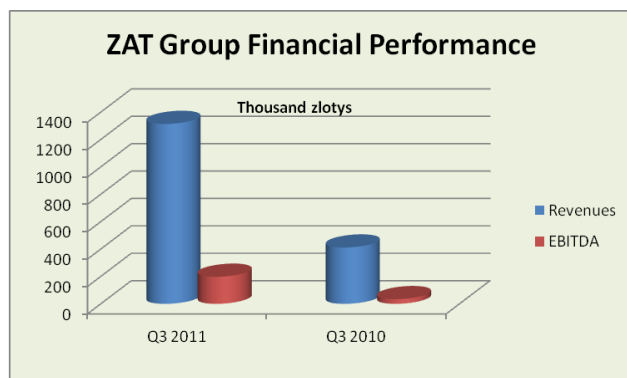


operating income of the group decreased by 340 million Kuna and amounted to 1.1 billion Kuna, while operating costs were reduced by 1.5 billion Kuna to 1.2 billion Kuna.

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**Chemicals**

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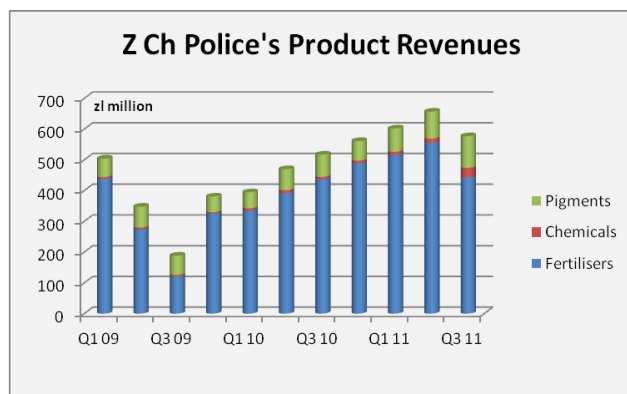
**ZAT Group, Jan-Sep 2011**

The ZA Tarnow group of companies recorded a sharp increase in revenues and EBITDA in the third quarter after the acquisition and integration of firstly ZAK and secondly ZCh Police. This has provided the group with a diverse range of products based on organic and inorganic chemistry, but above all a strong focus in fertilisers. In the third quarter this year the gross profit from sales amounted to zł 288.476 million against zł 65.006 million in the same period last year. In addition to the valuable additions of the oxo alcohol division from ZAK and titanium dioxide division from ZCh Police, the Tarnow group benefited in the third quarter from a weakening Polish currency. This helped to

improve the profitability of exports, particularly for fertilisers, caprolactam and oxo alcohols. In the oxo division demand patterns have recently slowed after a strong first half of 2011. Along with the reductions in the price propylene prices for oxo alcohols have been dropping in line weakening demand and consumption.

**ZCh Police, Jan-Sep 2011**

ZCh Police recorded a net profit of zł 46.388 million the third quarter in 2011 against zł 1.239 million in the same period last year. The company also recorded a 12% increase in net sales compared to the same period of 2010; ZCh Police has benefited from better market conditions and the restructuring programme applied in 2009. Higher sales prices and margins were the feature of the third quarter, whilst the significant weakening of the zloty has improved the profitability of foreign transactions and also reduced the amount of fertilisers imported into the Polish market.



Since the first quarter this year ZCh Police has followed a gradual and progressive improvement in its financial conditions. The most important factors affecting the sales of the results achieved during the three quarters of 2011 were higher profitability from sales to the agricultural sector. In the third quarter of 2011, revenues from the sale of fertilisers accounted for 75% of total sales revenues of the company. A total of 283,000 tons of fertilisers were sold which was 23% less than in the third quarter of 2010. On the domestic market, fertiliser sales totalled 147,000 tons or 52% of total sales.

Revenues from sales of titanium dioxide in the third quarter accounted for 18% of total revenues for ZCh Police. The company sold 10,000 tons of titanium dioxide, which is 5%, less than in the third quarter of 2010. Of total titanium dioxide shipments, 52% was exported and the company benefitted from prices being 49% higher than in the same period last year. Revenues from sales of chemicals in the third quarter of 2011 represented approximately 5% of total revenues. This group of products has been helped by the resumption of ammonia sales. The chemicals group also reported an increase in sales of AdBlue which is a urea solution combined with sulphuric acid.

In the third quarter of 2011, the cost of materials and energy for ZCh Police were higher by 21% against the same period last year. The share of raw materials in operating costs rose from 72% to 76%, with phosphate rock, salt potash and natural gas providing the main purchases. ZCh Police has become capable of repaying debts since its performance has improved in the past 18 months. The company has already repaid large amounts of debts owed, partly facilitated by the restructuring plan in 2009. In 2010 ZCh Police was close to bankruptcy but survived after the effects of restructuring and cost-cutting, combined with market recovery, allowed the company to increase revenues and turn losses into profits.

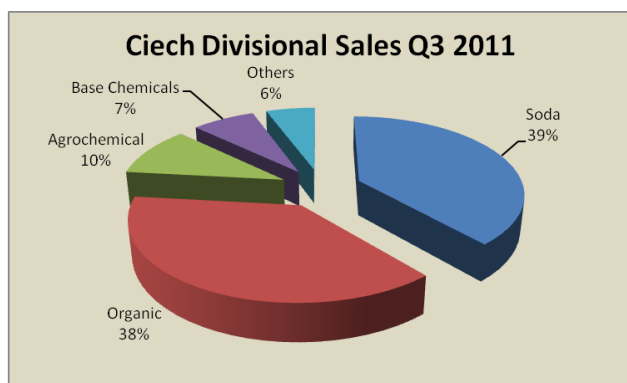
**Polish Chemical Production (unit-kilo tons)**

Product	Jan-Sep 11	Jan-Sep 10
Caustic Soda Liquid	183.2	179.2
Caustic Soda Solid	34.8	42.8
Soda Ash	683.9	746.3
Ethylene	365.2	366.1
Propylene	245.2	242.9
Butadiene	43.6	45.1
Toluene	49.8	71.4
Phenol	29.0	24.1
Caprolactam	106.2	115.2
Polyethylene	243.6	264.3
Polystyrene	87.0	104.1
PVC	189.9	147.7
Polypropylene	165.7	174.4
Synthetic Rubber	125.2	119.7
Pesticides	14.2	16.2

**ZA Tarnow buys more of ZAK**

ZA Tarnow (ZAT) signed a zł 200.1 million (€45.6 million) deal with the Polish Treasury to purchase a 40.86% stake in ZAK, thus increasing its total share in the company to 93.48%. In October 2010, ZAT purchased a 52.62% stake in ZAK for zł 150 million (€34.17 million). The acquisition will facilitate further consolidation of the Polish chemical industry and enhance the synergy effects between the two producers. Furthermore coupled with the latest purchase of ZCh Police, ZAT is consolidating its leading position in the domestic chemical industry in addition to that of Central and West Europe.

ZAT sees the transactions this year as part of the group plans to become one of the EU's leading producers of mineral fertilisers, plastics and plasticisers. ZAT reported a profit of zł 288.476 million) in the first nine months of 2011, against zł 65.006 million in the same period a year earlier. The Polish Treasury is ZAT's biggest shareholder, with a 32.05% stake, followed by local pension funds ING OFE and Aviva OFE, with 9.19% and 8.40%, respectively. The remaining shareholders amount to a 50.36% stake and represent a broad range of holdings.



**Ciech-Soda Division helps Q3 2011 profits**

From July to September this year, Ciech's sales totalled zł 1.018 billion, which was 3.52% up on the same period last year. The increase is attributed mainly with an increase in prices and sales volumes of soda ash. The largest share of the Ciech's revenues in the third quarter this year (39%) came from the soda division. The EBITDA for Ciech increased in the third quarter by 21% to zł 88.8 million against zł 13.3 million in 2010. Other product areas reporting good margins include epoxy and polyester resins. On the negative side, TDI prices were affected by high toluene costs, whilst overall higher gas costs for the Ciech group

restricted profitability.

The success of soda ash sales results primarily from the merger of subsidiaries Soda Matwy and Janikosoda. In 2007, Ciech took steps towards the establishment of Soda Polska Ciech in which Soda Matwy and Janikosoda were included. The merger of both soda companies with Ciech is the last stage in the restructuring of the soda division.

**Ciech-investment strategy revised**

Ciech has extended its project deadlines for Zachem and Organika-Sarzyna, which were set initially for completion by 20 December 2011. The value of Zachem's investments totalled zł 176.1 million and have been extended three years up to 2014 for specific investment projects such as the conversion of electrolysis, the introduction of new EPI technology and the increase in TDI capacity to 90,000 tpa. The value of investments for Organika Sarzyna totalled zł 130 million and the deadline has been extended by two years up to 2013 for the construction of MCPA plant.

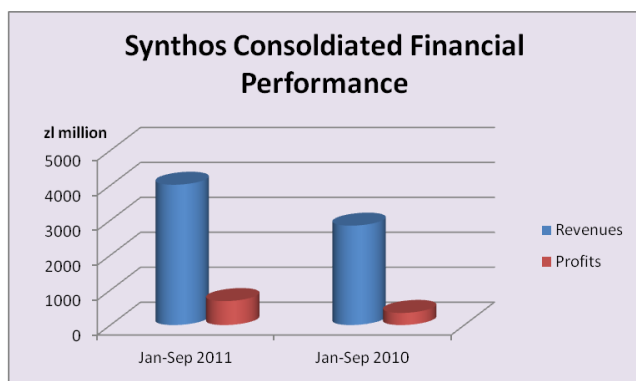
**Polish gas supply diversification**

ZCh Police is the largest recipient of gas in the north of Poland and has signed an agreement to buy natural gas from E. ON Ruhrgas for 6-7% of its supply for twelve months. In a few years time the company hopes to acquire up to 25% of gas from other sources than PGNiG. Entering into an agreement with E. ON Ruhrgas is the first step towards the diversification of raw materials. It has been made possible due to an expansion of the Gaz-System interconnector linking the Polish gas system with the German system Lasów near Görlitz.

The contract with the German company may be especially helpful in relation to swings in gas prices which would allow spot transactions. The company's inability to purchase cheap gas meant that it lost competitiveness at certain points in the cycle. The question of gas from Germany to ZAK at Kedzierzyn has yet to be resolved. The Police plant is very close to the German border whilst ZAK is almost 300 Km further. This means that the gas not

only needs to be transhipped across borders, but also requires further pipeline investment. In due course ZAK aims to purchase around 6-7% from alternative sources or roughly 40 million cubic metres per annum. This depends on an efficient transmission system and the expansion of the Interconnector system.

ZA Tarnow is not expecting to benefit from the Interconnector system. Theoretically, the distance should not represent a problem as ZA Tarnow is no further from the German border than ZA Pulawy which itself is planning to access the new sources. However, the location of gas fields in the Tarnow area provides an alternative source of feedstock for ZA Tarnow which the company hopes to exploit. Potentially these fields could provide more than half of the raw material used in chemical operations at Tarnow, thus reducing the dependency on Russian gas and at the same time creating savings from lower costs.

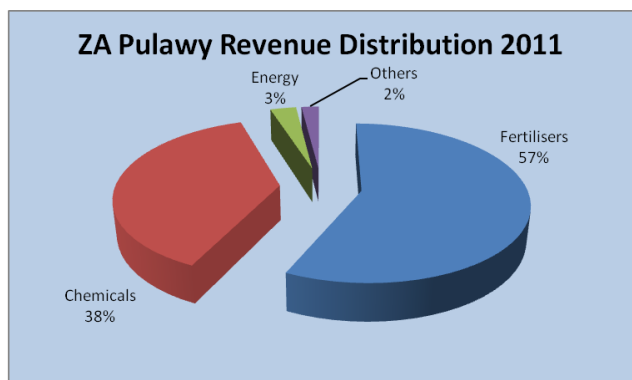


#### **Synthos, Jan-Sep 2011**

Synthos achieved a net profit of zł 282.520 million in the third quarter of 2011 which is double the profit of zł 141.65 million in the same period last year. The operating profit amounted to zł 323.13 million against zł 164.71 million in 2010. Consolidated revenues amounted to zł 1,512.030 million against zł 1,052.890 million last year. Overall, for the first three quarters Synthos achieved net profit of zł 685.55 million against zł 347.34 million, whilst sales rose to zł 4,017.040 million from zł 2,845.870 million in 2010.

In July 2011 Synthos Kralupy launched its new polybutadiene plant based on neodymium catalyst. This represents a significant addition to the group's production facilities. Polybutadiene rubber is produced at Kralupy using technology from Michelin and classified as neodymium (Nd PBR) which conforms the latest generation of rubbers. The rubber is used in tyre production and comprises qualities in relation to high resistance to abrasion and good rolling resistance, thereby reducing fuel consumption.

Synthos is only partly integrated into feedstocks and is largely dependent on long term contracts. During the third quarter Synthos Kralupy signed a contract with Slovnaft for the supply of C4 fraction with an estimated contract value of zł 97 million for this year. This could be renewed in 2012, whilst TVK is already supplying the group C4s from Tiszaujvaros. Synthos Dwory has been sourcing ethylbenzene from Slovnaft, but is looking to change supplier. Both Synthos Kralupy and Synthos Dwory concluded contracts in the third quarter with Lyondell Chemie Nederland for the supply of styrene. These contracts are worth in total in the range of zł 131 million. Other strategic raw materials include natural gas and Synthos has signed a contract for the whole of 2012 with a Czech gas trader.



#### **ZA Pulawy, Jan-Sep 2011**

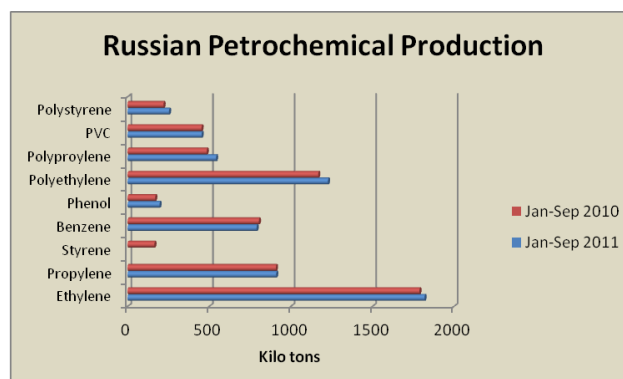
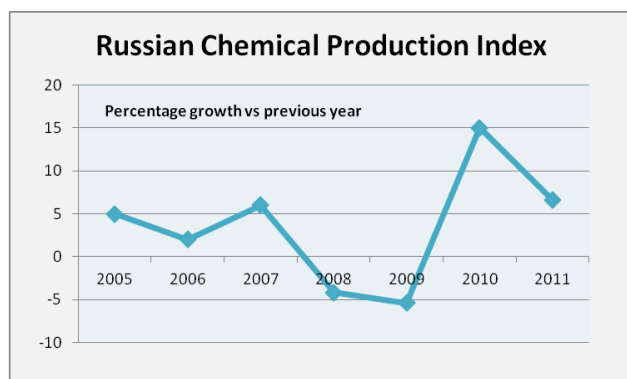
ZA Pulawy achieved a net profit of zł 99.49 million in the period July-September 2011 against a loss of zł 38.51 million in the same period last year. Gross profit from sales amounted to zł 199.17 million against zł 11.12 million in 2010, whilst revenues rose from zł 452.220 million to zł 820.960 million.

Results were expected to be less impressive, particularly as the continued downward trend in melamine prices has been squeezing margins. With gas prices rising profits in product sales have fallen and ZA Pulawy is keen to examine alternative sources of

gas using the new pipeline facilities that will start to operate in 2012. Rising gas prices will affect the profitability of chemical companies in Poland and it is very difficult to pass these increases on to the end-user. It takes roughly 3.5 tons of urea to produce 1 ton of melamine, and thus the gas price represents the key component to margins. In a bid to protect local producers against unfair competition, the European Union has imposed import duties on imported melamine (\$415/ton for Chinese imports, which compared to a benchmark May 2011 sales price of \$1900/ton). The weakening melamine market is partly offset by a surprisingly strong caprolactam market where the spread between sales prices and benzene costs hit another record high in August. This was in spite of Chinese import duties levied on US and European producers. ZA Pulawy has recently concluded a zł 44.7

million deal with the Ministry of Treasury to acquire an 85% stake in Azoty-Adipol. The transaction has yet to be approved by Poland's anti-trust watchdog UOKiK.

## RUSSIA



### Russian chemical production, Jan-Sep 2011

Product	Jan-Sep 11	Jan-Sep 10
Acetic Acid	100.4	118.0
Ammonia	10,510.2	9,676.3
Benzene	822.01	865.112
Butanols	136.8	195.0
C Black	543.9	484.3
Caustic Soda	737.0	783.3
Ethylene	1,795.6	1,790.8
Methanol	2,196.8	2,158.3
PET	271.8	222.4
Phenol	190.1	170.8
Phthalic Anhydride	71.5	79.8
Polyethylene	1,174.6	1,182.1
Polypropylene	513.1	475.3
Polystyrene	234.1	204.7
Propylene	994.7	979.9
PVC	410.5	418.4
Soda Ash	2,090.0	1,991.2
Styrene	357.3	353.3
Synthetic Rubber	917.9	894.6
Urea	4,428.7	4,240.6

Chemical production in Russia increased in the first three quarters in 2011 by 6.6%, whilst rubber and plastic products rose 15%. Production of nitrogen fertilisers rose by 7.6% up to 5.95 million tons, whilst ammonia production rose 7.1% to 10.5 million tons. The production of synthetic fibres for the first nine months amounted to 88.600 tons, which showed an increase of 6.5%), with synthetic fibres and filaments rising 7.3% to 14.900 tons.

In terms of sectors paints and varnishes rose 3.9% in the first three quarters, plant protection agents 22.6%, synthetic fibres 6.8%, and plastic products 14.9%. Ethylene and propylene production both rose slightly this year, but increases remain marginal. Noticeable rises are not foreseen until 2013 until such projects at Novy Urengoy, Tobolsk and Kstovo start to approach completion. Kazanorgsintez continues to operate ethylene capacity at around 75% due to ethane supply restrictions.

In Russia's polymer sector polystyrene production has seen the largest rise in the first three quarters in 2011, by increasing 15.3% on the same period last year. This has been due mainly to the new EPS unit introduced by SIBUR-Khimprom at Perm at the end of 2010. PVC production has remained unchanged, with ethylene supply

issues restricting production at both Sayanskkhimplast and Kaustik, whilst polyolefins have shown small rises. Gazprom Neftekhim Salavat has been running its HDPE plant, introduced in mid-2010, at higher rates whilst for polypropylene less plant downtime amongst Russian plants has allowed higher production.

In terms of the economy, Russia's GDP 2011 grew at 4.2% in the first nine months of against the same period in 2010. Inflation is a key problem for Russia as the rate constantly outstrips GDP. Wages are rising in some sectors, such as the military for example where pensions are being hiked up at the moment, but generally spending power is limited. As many economists point out the potential for growth in the Russian economy is vast, but the lack of economic reform by the current regime leaves too many remnants of the old Soviet system in place thus making it difficult to unlock this potential.

### Russian chemical trade, Jan-Sep 2011

Exports of chemicals from Russia dropped slightly in the period January-September 2011, whilst imports showed increases for certain products such as PTA. Russian chemical exports to China have dropped for many products this year, primarily as Russian production has been more oriented towards domestic markets. Butanols and caprolactam exports remained strong, but polymers saw a decline across the board as Russian producers



**Russian Chemical Exports to China  
(unit-tons)**

Product	Jan-Sep 11	Jan-Sep 10
DPE	50	45,890
LDPE	56,291	148,382
n-butanol	72,253	72,873
iso-butanols	63,448	54,261
PVC	746	2,311
Phthalic Anhydride	9,905	32,946
2-EH	7,394	14,083
PP	1,703	34,803
Acrylonitrile	7,411	16,970
DOP	0	1,986
Caprolactam	97,209	84,665
Polycarbonate	11,834	0
Styrene	7,975	7,845
Orthoxylene	1,048	40,135
Paraxylene	0	19,883
Trichloroethylene	0	6,488
Perchloroethylene	0	240
MEG	0	9,997
Phenol	0	628
Acetone	5,755	8,009
Epichlorohydrin	0	9,523
Bisphenol A	22,995	22,552
Polyamide	41,521	43,604
Polystyrene	441	2,800

focused on developing internal clients. Polymer imports, conversely, rose 36% in the first three quarters in 2011 and amounted to 697.641 tons. In value terms, imports of polymers increased 1.5 times up to \$1.268 billion. LLDPE imports amounted to 85.309 tons, which was 18% up on 2010, LDPE grew 14% to 46,733 tons and HDPE rose 35% to 225,128 tons. Imports of polypropylene increased by 20% up to 96,946 tons.

**Feedstocks & petrochemicals**

**Gazprombank has completed sale of SIBUR**

Gazprombank has completed the sale of SIBUR, which leaves Leonid Michelson with 57.5% of the holding and Gennady Timchenko with 37.5%. Michelson heads Novatek, which is the second largest producer of gas in Russia whilst Timchenko is an energy trader with Gunvor and a previous associate of Putin. Timchenko was previously employed by Kirishinefteorgsintez in St Petersburg, involved in oil product and paraxylene sales. In addition to Michelson and Timchenko, a further 5% stake in SIBUR is owned by management Dellawood Holdings.

Michelson has stated it does not preclude the onset of SIBUR other strategic shareholders, partners, Novatek, including Total. However, Michelson also said that the union Novatek and SIBUR no plans for co-operation. At the end of December 2010 Michelson acquired 25% of SIBUR and the rights of another 25%. Gazprombank reported that the valuation of the company in a transaction of more than 225 billion roubles excluding debt. Later, the bank reported that 25% of SIBUR sold for 37.5 billion roubles, which were evaluated by

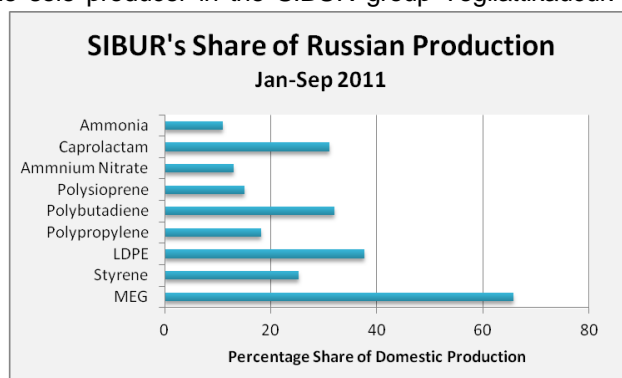
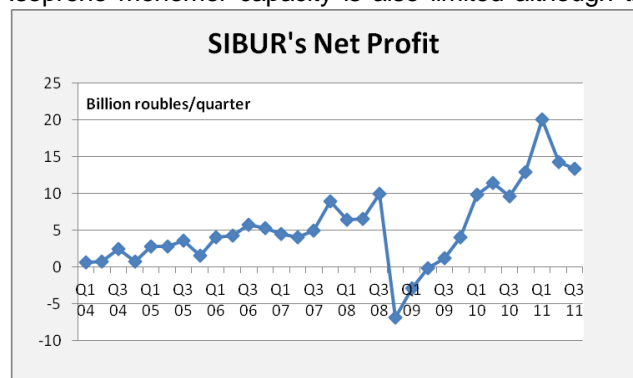
100% holding in the 150 billion roubles. In March, Miracle increased stake in SIBUR Holding up to 50%.

**SIBUR, Jan-Sep 2011**

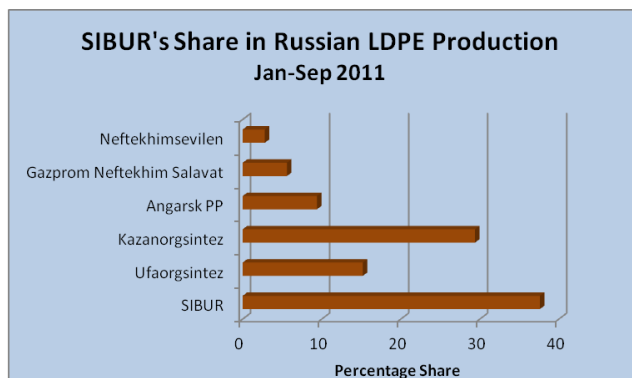
SIBUR Holding improved its financial position in the period January-September 2011 due to increased demand and higher prices. Its net profit rose against January-September 2010 more than 1.5 times up to 47.678 billion roubles, whilst revenues increased 36% to 172.328 billion roubles.

The share of LPGs in SIBUR's total revenues amounted to almost 30% for the first nine months in 2011, with production of LPGs totalling 2.7 million tons. Growth in the first three quarters was observed for most chemicals, including polystyrene, polypropylene and other olefins in primary forms. Other products recording increases included synthetic rubber, synthetic fibres, and polyethylene, but caustic soda sales saw a fall. Full production for SIBUR's individual plants is available on the Statistical Database at [www.cirec.net](http://www.cirec.net).

As illustrated in the graphic below SIBUR holds a dominant position across the chemical industry in Russia, although is not the market leader in every product. In the synthetic rubber sector for example Nizhnekamskneftekhim produces much more polybutadiene, accounting for 56% of total production in January-September 2011. The possibility for SIBUR to expand in that product area is restricted by the lack of butadiene. Isoprene monomer capacity is also limited although the sole producer in the SIBUR group Togliattikaucuk is



upgrading its technology from two stage to one stage. This will add some additional feedstock for isoprene rubber product and at the same time reduce costs. In the first three quarters in 2011 SIBUR accounted for 15% of isoprene rubber production, with Nizhnekamskneftekhim accounting for 58% and Sintez-Kaucuk at Sterlitamak 26%.

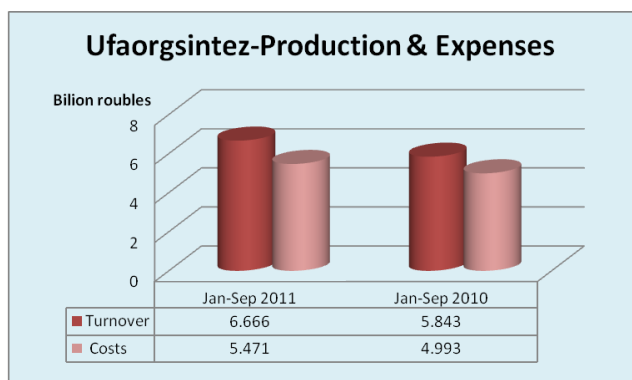


SIBUR is the main player in Russian MEG production, accounting for 65.7% in the period January-September 2011. The only other producers included Nizhnekamskneftekhim and Kazanorgsintez. The share of SIBUR Holding in the production of MEG has increased against the same period in 2010 primarily to the reduced share of Kazanorgsintez and Petrokam, the latter which did not produce. Total Russian production of MEG for 9 months of 2011 was 1.8% higher than the same period last year. Demand for MEG is rising in Russia due largely to the expansion of PET capacity and this is reducing the volume available for exports.

The share of SIBUR's production of styrene in Russia was 25.2% in the period January-September 2011. Nizhnekamskneftekhim accounted for 42.4%, Gazprom Neftekhim Salavat 26.1%, and Angarsk Polymer Plant (Rosneft) 6.4%. Overall styrene production is in surplus in Russia, allowing further expansion of polystyrene, ABS, etc, but the market is largely controlled by the main players limiting opportunity for the non-integrated producers.

For LDPE, SIBUR accounted for 37.6% of production in the period January-September 2011 which came from Tomskneftekhim. Other Russian producers included Kazanorgsintez with 29.4%, Ufaorgsintez with 15.2%, Angarsk Polymer Plant with 9.4%, Gazprom Neftekhim Salavat 5.6%, and Neftekhimsevilen 2.8%. Over the first nine months of 2011 production of LDPE declined by 3.7% against 2010, which is primarily due to accidents and shutdowns.

SIBUR's share in polypropylene production in Russia amounted to 18.2% in the period January-September 2011, based on production by Tomskneftekhim. The group was also helped by its involvement in NPP Petrochemicals at Moscow which accounted for 16.7% of production. Production for the SIBUR group will be boosted substantially after the start-up of the Tobolsk project in 2013.



#### Ufaorgsintez-Bashneft

Ufaorgsintez and Petrochemical Holding, owned by ex-president SIBUR Yakov Goldovsky, could enter into a future petrochemical holding company which would mean that Ufaorgsintez would have to withdraw from Bashneft. The aim would be to allow Ufaorgsintez to be incorporated in the new structure of AFK Sistem, which is owned 75% by Bashneft and 25% by Yakov Goldovsky. The aim is to develop the production of oil based chemistry at Ufaorgsintez, which is focused on olefins, polyolefins, phenol and acetone.

The plans being considered by the JV include 200,000 tpa of propylene oxide, 200,000 tpa of MDI, 300,000 tpa of ethylene, etc. However, the ethylene pipeline system requires reconstruction before any projects can be started and decisions are yet to be made.

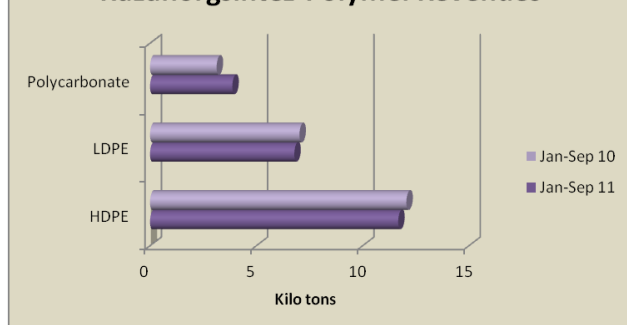
As part of Bashneft, Ufaorgsintez increased its net profit in the period January-September 2011 1.6 times against the same period last year. Ufaorgsintez increased its revenues by 14% to 6.666 billion roubles, whilst costs rose by 9.6% to 5.471 billion roubles and gross profit increased by 40.7% to 1.195 billion roubles. The company's revenue grew due to increased processing of raw materials. Other Bashneft plants performed less well than Ufaorgsintez in the period January-September 2011. The net income of Ufaneftekhim dropped 23% to 3.483 billion roubles, whilst revenues declined 0.8% to 13.6 billion roubles and costs increased by 14.3% to 9.446 billion roubles. A similar pattern was observed at other refining subsidiaries including the Novy Ufimsky Refinery and the Ufimsky refinery.

**Kazanorgsintez-Feedstock Cost Increases Q3 11 vs. Q3 10**

Ethylene	35.55%
Ethane	9.64%
Propane-Butane	31.52%
Benzene	21.72%

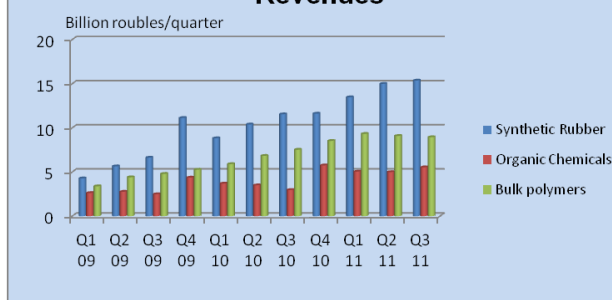
**Tatarstan petrochemical performance, January-September 2011**

Kazanorgsintez recorded a sharp decline in net profits in the period January-September 2011, down to 22.788 million roubles from 1.543 billion roubles in the same period last year. Revenues were virtually unchanged at 26.993 billion roubles against 26.457 billion roubles in 2010. The main factors affecting financial results included raw material costs and the negative influence of foreign exchange.

**Kazanorgsintez-Polymer Revenues**

The company witnessed a sharp rise in feedstock and raw material costs in the third quarter this year against the same period in 2010. Gazprom accounted for 25% of total feedstock deliveries for Kazanorgsintez and Nizhnekamskneftekhim provided 26%. Other suppliers included SIBUR-Holding which supplied 11% of materials used by Kazanorgsintez, and Tatneft 9% which was almost all ethane from the Minnibayevo Gas Processing Plant.

In terms of product sales, HDPE accounted for 437% of total revenues, followed by LDPE at 25.2% and polycarbonate 14.4%. Polycarbonate was the only product at Kazanorgsintez to see a significant increase. At the end of the third quarter, the long term liabilities of Kazanorgsintez totalled 31.383 billion roubles, including loans of 29.618 billion roubles. Of the total liabilities 25.8 billion roubles is owed to the state owned bank Sberbank.

**Nizhnekamskneftekhim-Sales Revenues**

By contrast to Kazanorgsintez, Nizhnekamskneftekhim recorded a net profit of 11.136 billion roubles in the period January-September 2011 which was 1.8 times higher than the same period last year. Revenues increased by a third up to 91.572 billion roubles. The growth in revenues has resulted partly from higher prices and in part due to a slight increase in volume sales. The company has managed to increase profits despite the rise in feedstock costs. The cost of naphtha on average was \$953/ton in the third quarter which was 45% up on the same period last year, but 4% lower than in the second quarter in 2011.

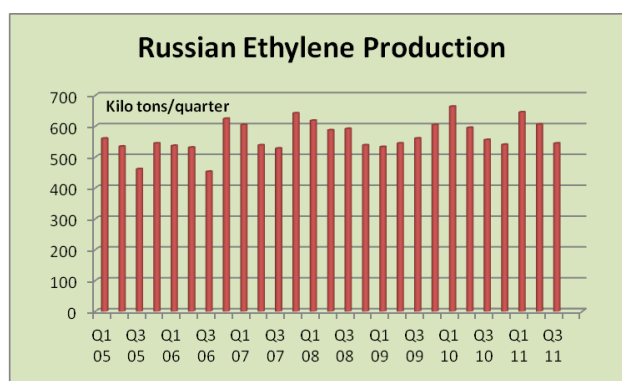
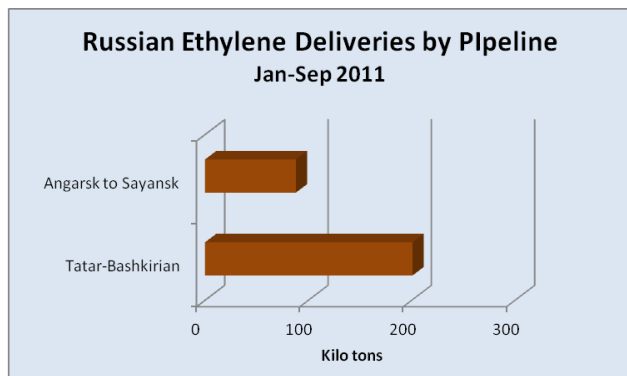
The share of synthetic rubber sales in total revenues rose from 44.7% in the period January-September 2010 to 47.9% this year. Polymers and organic chemical divisions rose slightly in percentage terms, but more significantly in absolute value. The long-term liabilities of the company at the end of September amounted to 8.339 billion roubles. Export markets for the first three quarters this year can be broken down into Europe (58%), Asia (22%), and CIS (12%). Proceeds from sale of the company's own production for the first nine months in 2011 grew by 21.904 million or 32.57%.

Nizhnekamskneftekhim is focused on a number of projects aimed at expanding the company's product range and improve its quality. Part of the investment strategy includes the gradual expansion of polybutadiene capacity (SKD-N) to 150,000 tpa, the expansion of butyl rubber and halobutyl to 200,000 tpa and the gradual increase for polyisoprene (SKI-3) to 280,000 tpa. All these projects are planned for completion by 2014. Aside capacity expansions Nizhnekamskneftekhim is looking to expand the product mix to meet demand on both domestic and foreign markets. The main points of this work include the production of butadiene-styrene rubber, and the organisation of production of expandable polystyrene, ABS plastics, etc.

**Russian olefin supplies, Jan-Sep 2011**

Ethylene production totalled 1.796 million tons in the period January-September 2011 against 1.790 million tons in the same period last year. Russian ethylene production remains largely unchanged and it could be another two to three years before the current investments in the industry start to take effect. Of the existing crackers Kazanorgsintez is the only producer with under-utilised capacity. Despite an increase in capacity to 640,000 tpa in 2010 the company is still faced by ethane shortages and remains dependent on ethylene supplies from Nizhnekamskneftekhim and Gazprom Neftekhim Salavat to feed its LDPE and HDPE plants.

Ethylene shipments through the pipeline network (excluding Kstovo to Dzerzhinsk) totalled 288.900 tons in the period January to September. Nizhnekamskneftekhim accounted for around two thirds of total shipments. Through the Tatar-Bashkir pipeline a total of 200.900 tons was pumped whilst volumes of ethylene from Angarsk to Sayansk amounted to 88,000 tons. In September, the supply of ethylene from Gazprom Neftekhim Salavat to the pipeline totalled 8,400 tons which was 3,800 tons less than in August. Kaustik accounted for 6,000 tons and Kazanorgsintez 2,400 tons.



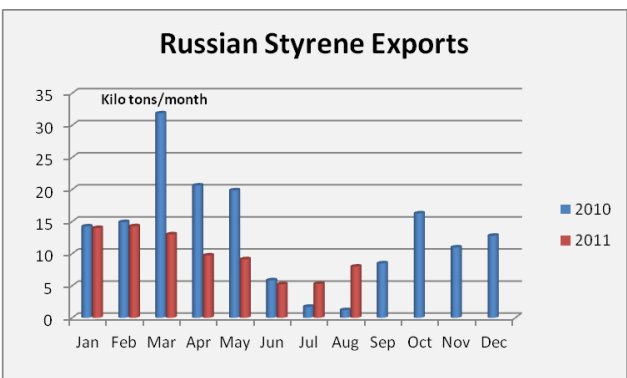
In the first nine months of 2011, Russia produced 995,000 tons of propylene against 979,000 tons in the same period last year. Exports totalled 27,700 tons in 2011 which was 2% down against 2010. Omsk Kaucuk increased its share of exports from 23% to 37%. In September, the volume of supply of propylene from Russia to foreign markets amounted to 3,000 tons, i.e. 1.400 tons less than in August. The reduction of export activities was due to increased sales to domestic consumers. Exports were shipped in full to Polish consumers, mostly ZAK, and came from SIBUR-Neftekhim (2,000 tons) and Omsk Kaucuk (1,000 tons).



In September Russian companies produced 79,400 tons of propylene, 13% less than in August. The reduction of volumes was due to the shutdown at Nizhnekamskneftekhim in the second half of September. The company produced 7,700 tons of propylene, against 26.500 tons in August. At the same time, Gazprom Neftekhim Salavat increased volumes in September up to 9,100 tons, 2.500 tons more than in August. Tomskneftekhim increased production to 11,700 tons (after 20 days out in August).

#### Russian styrene market, Jan-Sep 2011

The increase in captive consumption for styrene monomer in 2011 has resulted in less availability for the merchant market. This trend is not expected to change in 2012 and the merchant market could tighten further. Whilst production has risen marginally this year, consumption of styrene has risen faster at 22% more in the period January-September 2011 against 2010 and totalled 257,400 tons. The main reason for the rise in production is the higher output at SIBUR-Khimprom after capacity expansion last year. SIBUR-Khimprom delayed its maintenance shutdown until October which has also helped maintain strong demand for monomer.



is one of the main buyers of merchant styrene in Russia and sources most of its styrene from Gazprom Neftekhim Salavat.

The three main captive consumers of styrene include SIBUR-Khimprom, Nizhnekamskneftekhim and Gazprom Neftekhim Salavat. In 2011, polystyrene and styrene-acrylic dispersions have witnessed the largest increases in demand, both of which are markets that are highly dependent on the supply of imports. The Kirishi based polystyrene producer Styrovit (Pizhi Prof)

This year the consumption of styrene in Russia has risen at a faster rate than production creating bottlenecks in



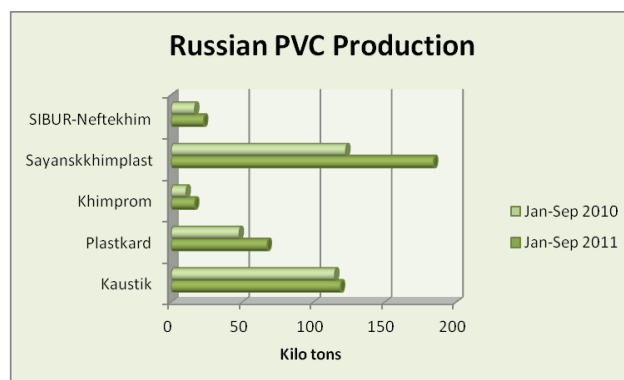
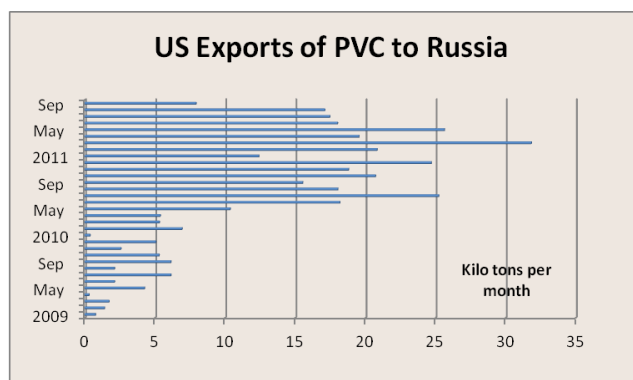
the supply chain for some sectors. Exports have fallen 16% as availability has tightened. Gazprom Neftekhim Salavat has exported much less styrene this year, reducing volumes from 52,200 tons in January-September 2010 to 26,600 tons in the same period this year. The increased volume of sales of Styrovit in the domestic market is the chief reason behind this decline. SIBUR-Khimprom has increased sales of styrene monomer in the domestic market, but increased shipments have been restricted to the SIBUR group members such as Voronezhskintezkaucuk which do not possess their own styrene production.

Russian Styrene Market (unit-kilo tons)				
	Jan-Sep 11	Jan-Sep 10	Jan-Dec 10	Jan-Dec 09
Production	357.3	340.71	476.7	491.4
Exports	99.9	118.7	158.7	198.4
Imports	0.0	0.0	0.1	0.0
Market Balance	257.4	222.0	318.1	293.1

A trend that has emerged this year is that major producers of styrene have been reducing the sales of product to consumers in favour of third parties for processing on their own capacities. Styrovit at Kirishi is most affected by this trend and. With SIBUR-Khimprom focused more on captive consumption the only remaining supplier is

Gazprom Neftekhim Salavat. Angarsk Polymer Plant could potentially supply material but logistical costs from Irkutsk to North West Russia would make purchases uneconomic. Theoretically, Nizhnekamskneftekhim can produce more styrene more than it needs, but the company is not interested in supplying raw materials to its competitors in the polystyrene market. In August 2011 Styrovit initiated the abolition of 5% import duty on styrene in order to be able to import raw materials at a lower price. However, the cancellation fee does not solve other problems with the supply of styrene from abroad and the problems are expected to continue.

### Bulk Polymers



#### Russian PVC market, Jan-Sep 2011

In the first nine months of 2011 consumption of PVC in Russia increased by 15% and reached 849,700 tons. From January to September this year, Russia imported 441,320 tons of polymer, 37% more than the same period last year. During this period Russia imported 186,200 tons of PVC from the US which was 2.2 times greater than in the same period last year. From Southeast Asia imports totalled 129,000 tons, or 7% more than in the same period in 2010. Consumption from domestically produced PVC has declined 2% in the first nine months in 2011 dropping to 411,040 tons.

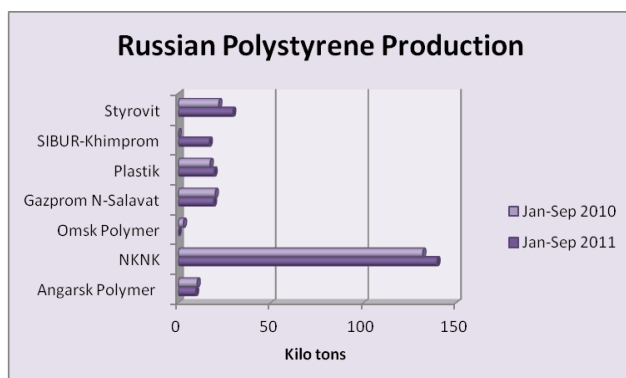
#### South Korean Polymer Exports to Russia (unit-kilo tons)

Product	Jan-Sep 11	Jan-Sep 10
PET	83.014	93.008
PVC	22.55	31.188
Exp PS	30.392	28.032
Polystyrene	70.325	53.708
HDPE	44.868	35.972
LDPE	21.325	9.981
Polypropylene	14.478	10.491
ABS	20.145	18.659

In the first nine months of 2011 SIBUR-Neftekhim produced 22,950 tons of PVC, 11% less than in the same period in 2010. Kaustik at Sterlitamak increased production 4% in the first three quarters to 119,490 tons. However, the company was affected in September by a lack of ethylene from the regional pipeline and this forced production to drop 32% against August.

Sayanskkhimplast was also affected in September by the lack of ethylene, with the cracker at Angarsk down for maintenance. Initially Sayanskkhimplast was able to use ethylene stocks it had accumulated, but was later restricted from full production and reduced volumes by 16% against August down to 16,390 tons. Overall for the first three quarters in 2011 the company produced 184,360 tons of PVC which was 3% less than in 2010. The sole Russian producer of PVC paste Khimprom at Volgograd increased production by 3% in the first three quarters in 2011. Primarily the result of ethylene shortages the supply of PVC from domestic producers declined

by 24% in September and amounted to 44,000 tons. In order to compensate for the domestic drop imports rose in September, with the USA providing the largest volumes.



#### Russian polystyrene, Jan-Sep 2011

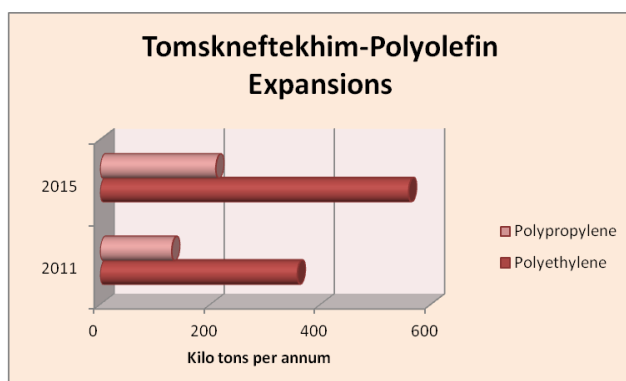
For the first three quarters this year Russian production of polystyrene increased 15% over the same period in 2010 to 206,700 tons. Styrovit at Kirishi increased polystyrene production 37% to 29,900 tons, whilst Nizhnekamskneftekhim increased production 3% to 139,820 tons. The start-up of the EPS plant at SIBUR-Khimprom has helped increase Russian output.

In the first nine months of 2011 Russian imports of polystyrene increased 14% over the same period in 2010 to a total of 129,380 tons. Most of the polymer is imported from South Korea (43% of total imports), China (14%), Belgium (10%) and Hungary (7%). Polystyrene production by Gazprom Neftekhim Salavat increased in September over August more than three-fold, after the company had closed down for summer maintenance in June.

Russian consumption of ABS rose 2% in the first nine months in 2011 to 36,350 tons although a slight fall is expected for the complete year. Imports of ABS rose 5% in the first three quarters to 27,340 tons with the majority being sourced from South Korea.

SIBUR-Khimprom at Perm is gradually increasing utilisation at its new 50,000 tpa plant for EPS. In the first half of 2011 the average amount of monthly production was 1,800 tons, but this rose to 2,000 tons per month in the third quarter. From January to September, production of EPS at Perm totalled 16,810 tons, representing 50% of plant output. Angarsk Polymer Plant restarted polystyrene production in September after a maintenance shutdown. Overall for January-September 2011 the plant reduced production by 14% against 2010 to 9,430 tons.

Plastics processors in the Angarsk region are encountering supply problems with polystyrene from Angarsk Polymer Plant. One of the leading local processors Polyform, which produces foamed plastics used in construction, insulation, painting, etc, has recently lost its supply of raw materials previously purchased from Angarsk Polymer Plant. The reasons behind this are that polymer sales from Angarsk are now coordinated through Rosneft's Moscow office, which forces consumers such as Polyform to buy raw materials in China. Insufficient availability has put some of the local processors in the Angarsk region at risk and thus a joint approach has been made to Rosneft in an effort to change policy.



#### Tomskneftekhim, Jan-Sep 2011

Tomskneftekhim produced 180,000 tons of LDPE in the period January-September 2011, 1% more than during the same period of 2010. In 2010, the company produced 239,000 tons of polyethylene and 119,000 tons of polypropylene. In addition to the increase in polyethylene capacity, polypropylene is expected to be expanded up to 210,000 tpa. As part of its downstream programme, Tomskneftekhim plans to build a BOPP plant with a capacity of 37-38,000 tpa.

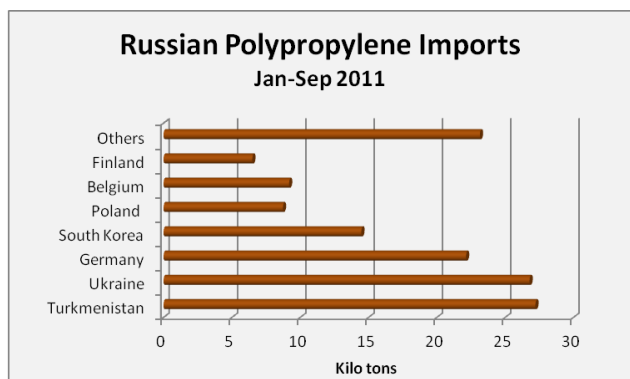
The expansion in polyolefin capacities at Tomsk is to be made possible by the addition of new feedstock sources. These can be derived from a new oil refinery which is in construction and a new gas processing plant, which is in the planning stages. Tomskneftekhim is looking to increase the capacity of polypropylene and polyethylene by 1.6 times from 358,000 to 560,000 tpa in the next few years.

#### Russian polypropylene imports rise in 2011

For the period January-September 2011 Russia imported 138,400 tons of polypropylene which was 72% up on the same period in 2010. The largest source of imports came from Turkmenistan where 27,220 tons were delivered, which accounted for 21% of the total. However, imports from Turkmenistan declined by 8% over 2010

whilst imports from Ukraine, from the Lisichansk plant, almost doubled to 26,790 tons and accounted for 19% of the total. Other important sources of imports include Germany with 16% of the total and South Korea 14%.

Russian polypropylene production rose 12% in September due to downtime at Ufaorgsintez and Tomskneftekhim taking place in August. Production totalled 513,000 tons in the period January-September 2011

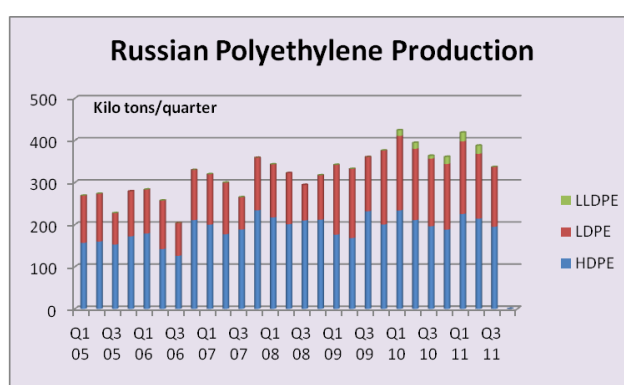
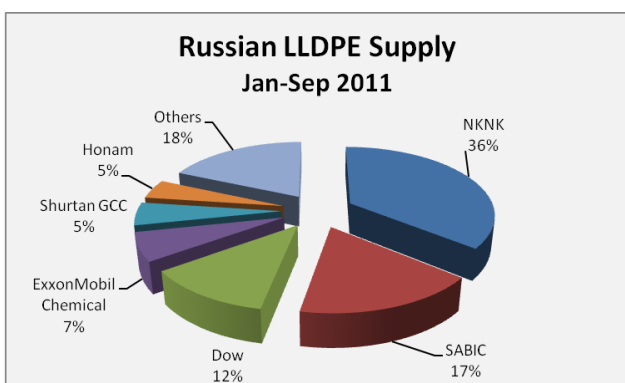


against 475,000 tons in the same period last year. Overall for the first nine months in 2011 consumption of polypropylene rose 23% to 598,500 tons. Combined with the 72% increase in imports, production in Russia rose 10% and amounted to 512,900 tons. At the same time exports declined 4% to 52,800 tons.

#### Omsk polypropylene project

After start-up of the 180,000 tpa polypropylene plant at Omsk GK Titan is planning to launch a second phase in 2012 or 2013 where capacity will be increased to 265,000 tpa. The expansion would cost in the range of \$100 million. The expansion is aimed at increasing the

economies of scale in the production of polypropylene and providing sufficient polymer to meet the demand from the regional industrial park where converters will be based.



#### Russian LLDPE market

Demand for LLDPE in Russia is rising much faster than other mainstream polymers, with volumes rising around a third in 2011 over 2010. From January to September 2011 the largest importer of LLDPE into Russia was SABIC with 26% of total imports (in 2010 Dow held that position). Imports from West Europe have declined this year to 24% from 42% in 2010 due to the higher cost of European polyethylene.

Imports have been rising to meet growing demand as Russian production remains relatively small, with the only source of production by Nizhnekamskneftekhim and this itself is balanced against the demand for HDPE. The Nizhnekamsk plant produced 43,600 tons in the first nine months whilst Russian consumption totalled 121,600 tons. Given the shortage of domestic polymer, Russian market demand is met almost two thirds through imports. From January to August of 2011 shipments LLDPE amounted to 78,900 tons, up 24% on 2010. Russian consumers are trying as much as possible, to replace the more expensive European and Asian polyethylene with cheaper Middle East supply.

In 2011, the largest importer of LLDPE has been SABIC. Demand for Saudi produced ethylene is strong due to costs and quality. At the same time imports from West Europe have been in decline, dropping from 42% of total shipments in the first three quarters in 2010 to 24% this year. At the same time LLDPE from West Europe cannot be completely phased out as product possesses certain qualities not available elsewhere. From time to time Russia imports LLDPE from the Shurtan Gas Chemical Complex in Uzbekistan, but its share in total imports has only amounted to 5% this year.

Around 90% of LLDPE consumption in Russia goes into films, with the remainder going into additives. The fastest growing markets include stretch film, shrink films and lamination due to the expansion of applications of these products. Consumption per capita of films is much less than in Russia and thus considerable potential exists for growth in film production which currently stands at around 450,000 tpa.

**Russian Chemical Exports (unit-kilo tons)**

	Jan-Sep 11	Jan-Sep 10
ABS	1.2	0.3
Acetic acid	37.1	39.7
Acetone	24.4	14.4
Ammonia	2893.0	1988.6
BOPE	1.1	2.2
BOPP	7.1	12.8
Calcium Chloride	14.0	15.3
Caprolactam	132.2	126.4
Carbon Black	346.6	326.4
Caustic Soda Liquid	192.9	290.5
Caustic Soda Solid	54.7	55.1
Chlorine	11.5	5.8
Isobutanol	61.2	70.3
N Butanol	82.2	97.7
Orthoxylene	39.3	45.7
Paraxylene	91.6	78.4
PET	59.6	7.0
Phenol	0.6	1.3
Phthalic anhydride	40.4	40.8
Polyamide	68.5	59.0
Polypropylene	53.2	53.8
Polystyrene	34.7	40.0
Propylene	24.7	28.3
Soda Ash	480.7	245.5
Styrene	99.9	118.7
Synthetic Rubber	591.1	554.8

**Russian HDPE & LDPE markets**

Russian HDPE supply has tightened since the start of September, largely in connection with outages taking place at Kazan, Salavat and Budyennovsk. Nizhnekamskneftekhim undertook a 10 day shutdown for its HDPE plant, to coincide with the ethylene outage from 10 September. Kazanorgsintez stopped one HDPE reactor on 7 September, from which it aims to increase the capacity of the reactor by 10-15 tons per hour. Production at Kazan will resume at the end of October. The other two reactors stopped for maintenance from 15 September to mid-October.

Gazprom Neftekhim Salavat's 120,000 tpa HDPE plant is not yet running at full capacity. This is due partly to strong competition for HDPE in the domestic market coupled with the good prices available for ethylene monomer sales to customers such as Kazanorgsintez and Kaustik.

HDPE exports from Russia remain relatively small with Kazakhstan being the main destination and Kazanorgsintez the main supplier. Tomskneftekhim accounted for 57% of LDPE exports in the first nine months in 2011, followed by Kazanorgsintez with 23% and Angarsk Polymer Plant with 10%. Total LDPE exports amounted to 136,743 tons in the period January-September this year. From January to September 2011 Russia produced 468,372 tons of LDPE, which was 5% less than during the same period in 2010.

Production of polyethylene by Nizhnekamskneftekhim stopped for scheduled maintenance on 28 October through to 6 November. Since completion the company has been producing LLDPE but HDPE will resume in December.

**Aromatics & derivatives**

**Russian benzene market, Jan-Sep 2011**

In the first nine months of 2011 Russia produced 796.700 tons of benzene monomer, which is virtually the same the same period of last year. The West Siberian Metallurgical Combine (ZSMK) has completed repairs on its benzene plant allowing a restart in November. The plant stopped production in December 2010 after an accident. Coal based production remains an important part of the supply/demand balance for benzene in Russia, as the petrochemical plants are unable to meet full demand. Even Nizhnekamskneftekhim is required to buy coal based benzene occasionally to supplement its cracker based production.

Other sources of supply include Ukraine and Kazakhstan. In September, imports of benzene from Ukraine into Russia totalled 3.800 tons which was 28% more than in August. Yasinovsky Coke Chemical Plant provided the largest volumes, providing Kuibyshevazot with 495 tons at a price of \$1030/ton and 2,267 tons to Samaraorgsintez at a price of \$1155/ton. In addition, Zaporozhkoks supplied Samaraorgsintez with 1,043 tons at a price of \$1,155/ton.

Russian benzene production totalled 74.300 tons in September which was 10% less than in August. Ufaneftkhim reduced production due to maintenance whilst Nizhnekamskneftekhim reduced production 75% to 4,700 tons. Gazprom Neftekhim Salavat increased production to 7,700 tons, which is 700 tons more

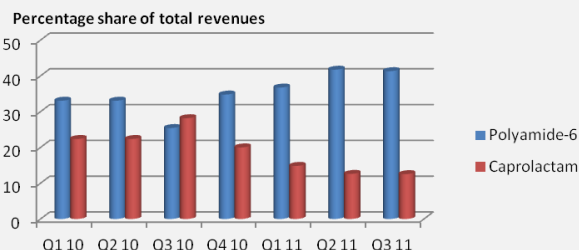
**Russian Benzene Production  
(unit-kilo tons)**

Producer	Jan-Sep 11	Jan-Sep 10
Altay-Koks	33.0	28.2
Angarsk Polymer Plant	44.3	46.9
Chelyabinsk MK	10.8	11.1
Gazprom Neft	75.1	79.1
Koks	16.2	25.4
LUKoil-Neftekhim	51.3	39.0
LUKoil-Permnefteorgsintez	33.1	42.7
Magnitogorsk MK	39.6	46.3
Nizhnekamskneftekhim	141.1	143.4
Novolipetsk MK	21.7	21.5
Salavatnefteorgsintez	62.1	72.2
Severstal	29.5	27.2
SIBUR-Holding	52.7	44.6
Slavneft-Yaroslavlorgsintez	40.2	47.0
Surgutneftegaz	45.1	47.3
TNK-BP	22.0	26.7
Ufaneftkhim	52.7	70.2
Ural Steel	5.8	7.9
Uralorgsintez	45.7	24.2
ZapSibNPZ	0.0	14.2
Total	822.019	865.112



than in August. In September, the Angarsk Polymer Plant increased production up to 2,700 tons which it uses almost exclusively for ethylbenzene.

### Kuibyshevazot-% Share of Product Revenues



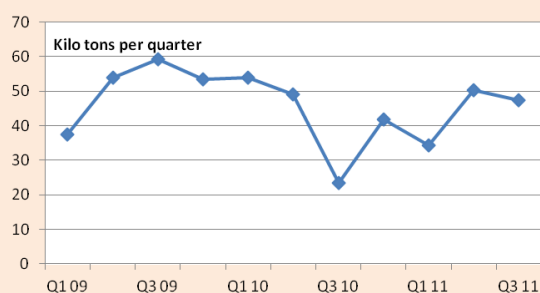
### Kuibyshevazot, Jan-Sep 2011

Kuibyshevazot increased the production of polyamide-6 by 40.1% in third quarter in 2011 against the same period last year, increasing the share in revenues for the period January-September to 41.3% of total revenues. Production of caprolactam increased by 13.1%, but its share in total revenues dropped to 12.3% against 24%.

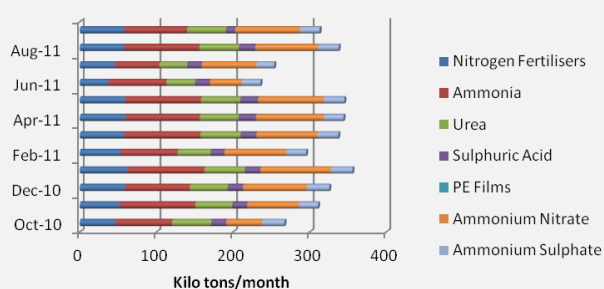
This year Kuibyshevazot has installed its fourth line for polyamide production which in effect reduces the amount of caprolactam being sold by the company on the merchant market. Kuibyshevazot has also put into operation a new installation for water-washing in the

production of cyclohexanone. The technical measures introduced will reduce the consumption of caustic soda used in the production process, as well as improve the plant's environmental performance. Other tasks undertaken this year include the installation of additional storage capacity for benzene monomer, new measures aimed at reducing resource consumption in the production of caprolactam.

### Russian Caprolactam Exports



### Azot Kemerovo-Production



### Azot Kemerovo-caprolactam expansion

Azot at Kemerovo (part of SIBUR-Minudobrenya) has started a project for installing new refrigeration equipment for the production of caprolactam. This project is aimed at increasing operating efficiency and output. As a result, the company will increase production of caprolactam to 2,000 tpa from 116,000 tpa at present. The project is expected to be completed by 2012. The economic effect of the project is estimated at more than 9 million roubles.

Earlier this year, the production of caprolactam was carried out modernisation of packaging equipment and installed a new line of palletizing, packing and providing 75,000 tpa of crystalline caprolactam on pallets. This allowed the company to receive an additional premium to market value and substantial savings to unify transportation. SIBUR-Minudobrenya is the largest Russian supplier of caprolactam in the foreign market: the company's share in total Russian exports up 53%. Virtually 100% of the caprolactam produced by SIBUR-Minudobrenya is exported to East Asia, China and Taiwan.

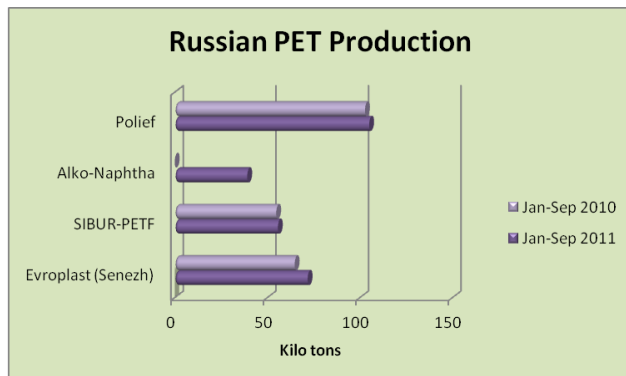
Azot is seeking to create a separate division for caprolactam production, by creating a subsidiary with its own legal entity. The aim of the restructuring is to attract investors for more efficient co-development of this business. SIBUR plans to sell SIBUR-Mineral Fertilisers in the near term.

Azot expects to increase production by 6% over 2011 against last year, up to 1.078 million tons of ammonia and 585,000 tons of urea. In 2010, the company produced 1.011 million tons of ammonia and 551,000 tons of urea. After plant overhauls the company has accelerated volumes whilst reducing natural gas consumption for ammonia production.

### PET raw materials

Polief, controlled by SIBUR, convened a meeting in November where shareholders have been asked to approve three deals in contracts for raw materials. Two contracts will be agreed with Bashneft for paraxylene and MEG and another contract with SIBUR-Holding for MEG. The shareholders are also being asked to approve a new version of the statute. In October, SIBUR Holding announced plans to consolidate 82.5% of the voting shares in Polief and received approval from the FAS, provided that there are no restrictions in the PTA market.

PTA imports have risen sharply this year following the start-up of the PET plant at Kaliningrad. Imports totalled 133,000 tons in the first three quarters in 2011 against 26,000 tons in the same period in 2010. Alko-Naphtha imported 8,700 tons of PTA in September, which was 14% more than in August. The largest amount of PTA (4,140 tons) was supplied by KP Chemical from South Korea at the price of \$1,288 per ton CFR Kaliningrad. In addition, PKN Orlen shipped 2,550 tons at \$1,361 and Lotte Chemical UK 2,000 tons at \$1,315 respectively, per ton CFR Kaliningrad.



#### PET project at Kabardino-Balkaria

The government of Kabardino-Balkaria has revised upwards government guarantees of \$1.8 billion to Ethan for the construction of a PET plant with a capacity of 486 000 tpa.

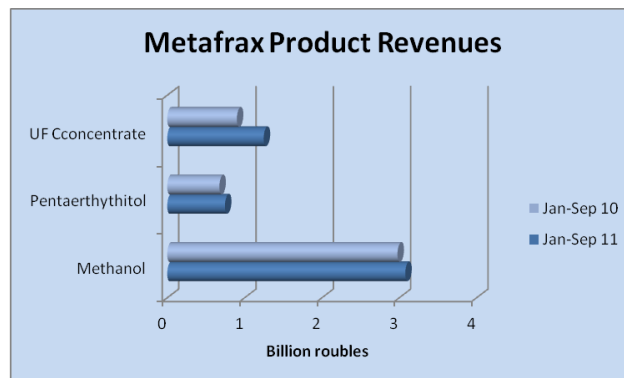
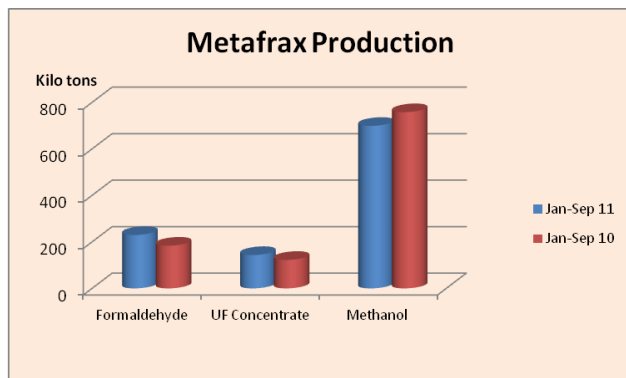
According government estimates the total cost of the plant is 12.3 billion roubles, including VAT. Ethan will invest 2.7 billion roubles of its own funds, with 8.1 billion roubles being made available from loan funds. The project schedule covers the period 2011-2015, with the first phase of 162,000 tpa to start up in 2013.

This will be followed by a second phase in 2014 with a capacity of 288,000 tpa and then lastly in 2015 a rise in capacity to 486,000 tpa. The plant will produce PET for the food and textile industries. Swiss company Buhler is to supply the equipment and technology for the project.

### Methanol & related chemicals

#### Metafrax, Jan-Sep 2011

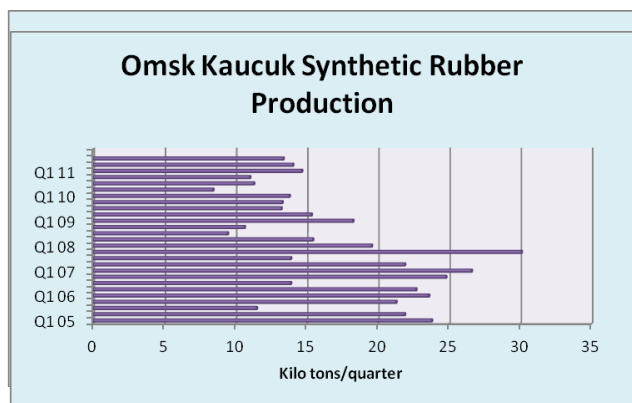
Metafrax produced 699,000 tons of methanol in the first three quarters in 2011, which is 7.7% less than the same period in 2010. The production of formaldehyde increased by 24.9% to 229,800 tons, urea-formaldehyde concentrate by 17.1% to 143,600 tons, pentaerythritol by 23.3% to 16,200 tons, and hexamine 1.6 times to 17,200 tons.



Internal processing of methanol for Metafrax forms a major part of the company's strategy. In 2010, Metafrax processed more than 265,000 tons of methanol and 221,551 tons in the period January-September this year in addition to over 194,000 tons of formaldehyde (calculated at 37%). Metafrax plans to increase methanol processing up to 400,000 tpa in the next few years, which would account for around 40% of production based on current volumes.

Demand for urea-formaldehyde concentrate has been positive for Metafrax recently due partly to a shutdown of Togliattiazot's plant. Demand for urea-formaldehyde concentrate is moreover expected to increase in the domestic market due to the start-up of new facilities for consumption at Tambov. The demand for pentaerythritol is associated with the seasonality of consumption and tends to soften over the winter months.

Metafrax aims to achieve 1.1 billion roubles of net profit by the end of 2011, which would represent a 21.4% increase on 2010. Revenues for 2011 are targeted at 8.8 billion roubles, which would be 13.4% higher than in 2010. During the first nine months of this year, the company increased net profit by 1.5 times up to 903 million roubles, whilst revenues increased by 16% to 6.319 billion roubles. The share of exports in total sales for Metafrax in the period January-September 2011 amounted to 39%.



#### Azot Novomoskovsk, Jan-Sep 2011

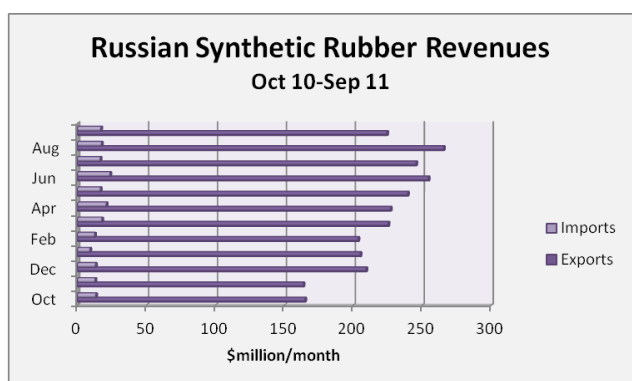
Azot at Novomoskovsk increased revenues in Q3 2011 by 65.6% over Q3 2010. The main factors that influenced the change in earnings included rising prices for urea (35.3%), ammonium nitrate (13.7%), ammonia (7.4%), and methanol (2.8%). Volumes sold increased slightly whilst captive usage of urea increased 2.2%. The increase in revenues was influenced by the growth in prices for urea, ammonia, ammonium nitrate, and methanol, as well as increases in shipments of methanol. The company recorded an increase in gross profit of 2.546 billion roubles, which was 46.4% up on the same period last year. Methanol shipments increased both to domestic consumers and

the export market although overall production has not increased. .

Azot plans to produce more than 7,000 tons of argon, which exceeds by almost a third volumes in 2010. In the near future, the production of argon will be upgraded including the modernisation of technology. Argon is used in the aerospace industry, and in enterprises belonging to the military-industrial complex.

The holding company controlling Azot at Novomoskovsk Evrokhim plans to provide 20-25% of the group's annual demand for gas from its own assets from 2012 onwards. With rising prices for Russian natural gas, Evrokhim aims to strengthen its competitiveness through the purchase of natural gas assets in the Novy Urengoy area. At present efforts are underway to purchase Severneft-Urengoy, which holds the license for the Western Yaroyahinsky field. In 2010, Severneft produced 645.2 million cubic metres of gas and in the first half of this year 328.24 million cubic metres.

### Synthetic Rubber



#### Russian synthetic rubber market

Russian exports of synthetic rubber in January-September 2011 increased slightly over 2010 to 395,200 tons. Revenues coming into the country from exports rose 1.6 times up to \$2.1 billion. In the period January to September imports totalled 50,200 tons most of which came from China, followed by Germany and Poland. Despite the increase in imports domestic production accounts for the major share of domestic consumption. This reflects the traditional emphasis on synthetic rubber production formerly in the USSR which is being developed and expanded by a number of producers.

#### Efremov Synthetic Rubber Plant

The Russian Federal Antimonopoly Service (FAS) has granted Cyprus Cemoro Commercial Ltd the right to acquire 100% shares in Efremov Synthetic Rubber Plant in the Tula region. The petition was received by the FAS on 29 August and its review period was extended until 18 October two months for additional information in accordance with competition law.

<b>Russian Synthetic Rubber Market</b>		
	<b>Jan-Sep 11</b>	<b>Jan-Sep 10</b>
Production	628.2	555.2
Exports	395.2	383.3
Imports	50.2	45.5
Market Balance	137.9	81.6

The current owner is Matrix in the Chelyabinsk region which it bought from Tatneft in 2006. The Efremov plant has traditionally bought butadiene from Nizhnekamskneftekhim, but since last year has also been sourcing from SIBUR. The Efremov Synthetic Rubber Plant is one of Russia's largest producers of polybutadiene rubber (SKD), and also produces small volumes of polyisobutylene.

#### Omsk Kaucuk, Jan-Sep 2011

Omsk Kaucuk increased the production of synthetic rubber by 25% in the first three quarters in 2011 over the same period last year up to 40,000 tons. Phenol production increased 20% to 50,000 tons and acetone by 20% to 30,000 tons, whilst propylene rose 8% to 38,000 tons.

Omsk Kaucuk is part of the Titan group of companies which was founded in 1989. The group is engaged in the production of acetone, latex, rubber, propylene, phenol, and MTBE. The share of Titan in the Russian market for synthetic rubber amounts to 26% and for phenol 25%.

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### Organic chemicals

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#### Polyols project-Kemerovo

The Polish company Organika at Malborskiy has signed a letter of intent with a Russian company which involves the creation of a production facility for polyols at Kemerovo. The location of the plant was selected due to easy access to raw materials used in the manufacture of polyols. The capacity has not been decided yet, but the project follows other announced projects for polyols in Russia at Togliatti and Kstovo. At present, polyols are imported into Russia from major producers such as BASF, Dow, Bayer, etc, and the new plants should be capable of taking some market share.

#### Pigment-Tambov

Pigment at Tambov has begun production of synthetic resins with improved environmental performance. Part of the reorganised complex for their production includes a plant for the production of formaldehyde with a capacity of 40,000 tpa. Resins will be used in the manufacture of insulating materials used in construction. The new production facility has been made possible through the implementation of a tripartite agreement between the Administration of the Tambov region, Pigment and Isoroc. The total investment amounted to more than 350 million roubles.

#### Russian market for styrene-acrylic dispersions

From January to September 2011 Russia produced 19,300 tons of styrene-acrylic dispersions which reflects a 23% increase over the same period in 2010. Nearly all the production was sold on the domestic market, with only 2% exported. Imports of styrene-acrylic dispersions totalled 35,000 tons in the first three quarters in 2011, which was 20% up on last year. The main sources of imports are from Germany and Finland. This year the cost

##### Russian Styrene-Acrylic Dispersions Market (unit-kilo tons)

	Jan-Sep 11	Jan-Sep 10	Jan-Dec 10	Jan-Dec 09
Production	19.3	15.7	20.6	15.4
Exports	0.3	0.3	0.3	0.3
Imports	35.0	29.2	37.5	32.6
Market Balance	54.0	44.6	57.8	47.6

of styrene-acrylic dispersions in Russia has increased several fold due to price hikes of butyl acrylate and styrene. Over half of styrene-acrylic dispersions consumed in Russia this year have been used for the production of water-dispersion paints. Total consumption for the Russian market for the first nine months of this year totalled 54,000 tons.

#### Russian DOP market

In the first nine months of 2011 Russia imported 7,500 tons of DOP, which was 17% less than the same period last year. Reducing the supply of imports has been due to largely to increased domestic production, with the Roshalskogo Plasticizer Plant in full operation this year as opposed to last. Russian exports of pentaerythritol totalled 5,400 tons in the period January-September 2011, 41% more than in 2010. The sole Russian producer and exporter of pentaerythritol is Metafrax.

From January to September 2011 Russia exported 158,900 tons of butanols, which is 5% lower than the same period in 2010. China accounted for 54% of exports followed by Finland with 38%. Gazprom Neftekhim Salavat was responsible for 52% of exports, Angarsk Polymer Plant for 25%, SIBUR-Khimprom 22%, and Azot at Nevinomyssk 1%. Broken down, Russian exports consisted of 56% normal butanols and 44% isobutanols.




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### Plastics

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#### Russian film markets, Jan-Sep 2011

Russian production of polyethylene films totalled 202,300 tons in the period January-September 2011, which was 3% down on the same period last year. Imports have risen 17.3% to 76,000 tons which is attributed due largely to price advantage and in certain cases the lack of competitiveness of Russian



product.

Consumption of polypropylene films in Russia totalled 133,200 tons in the first three quarters in 2011, which is 6% down on the same period last year. Demand was down sharply in the first quarter due changes affecting the main consumers and has been recovering since then which has led to a reducing volume of surplus product available for export. In the first nine months in 2011 Russia produced 112,700 tons of polypropylene films which is 5% less than last year, whilst exports were up by 47% to 7,100 tons. Imports rose 34.8% to 27,600 tons most of which was BOPP.

CPP film consumption is less important than BOPP, and only amounted to 8,850 tons in the period January-September this year which was 2.6% higher than in 2010. On the one hand, domestic production is small and on the other hand imports can be expensive which restricts interest from the food sector such as in unpackaged bakery products.

<b>Russian Chemical Imports (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Sep 11</b>	<b>Jan-Jun 11</b>
ABS	26.8	25.9
Acetic Acid	13.9	8.6
BOPE	76.1	64.9
BOPP	27.6	20.5
HDPE	227.6	171.9
LDPE	76.4	67.6
LLDPE	89.2	74.4
PET	217.3	205.1
Phenol	3.0	0.4
Phosphoric Acid	3.7	9.6
Phthalic Anhydride	3.9	4.1
Polypropylene	129.2	86.2
Polystyrene	129.4	114.1
PTA	133.5	26.2
PVC	441.1	335.8
PVC films	55.8	52.4
Synthetic Rubber	50.2	45.5
Titanium Dioxide	78.4	63.5

#### Biaksplen-BOPP expansions

Biaksplen plans to launch two new lines for the production of BOPP film by 2013 at Novokuibyshevsk and Tomsk, both with capacities of 38,000 tpa. Biaksplen NK and Bruckner Maschinenbau recently signed a contract to supply equipment for the production of BOPP at Novokuibyshevsk. A further new plant is being considered for Tobolsk after the completion of the polypropylene plant. One of the problems of the Russian market is the lack of production of additives that are used to produce films. Therefore, the company has to buy them abroad.

Currently, BOPP capacity for the Biaksplen group totals 106,000 tpa and thus with the addition of the two plants will be increased to 182,000 tpa. Sales of BOPP film in 2010 amounted to 66,900 tons up 11% over 2009. The Russian market for BOPP is currently estimated at around 120-125,000 tpa, of which imports account for about 20% market share.

By 2015, the market is forecast to grow to around 200,000 tpa. In the first nine months of 2011 Biaksplen produced 146,530 tons of

BOPP, which was 5.6% up on the same period last year. Exports have dropped this year by 68% to 7,076 tons.

<b>Ukrainian Chemical Production (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Sep 11</b>	<b>Jan-Sep 10</b>
Acetic Acid	110.8	55.5
Ammonia	3836.8	3022.1
Benzene (-95%)	119.7	156.1
Benzene (+95%)	97.4	82.4
Caprolactam	41.0	18.0
Caustic Soda	112.9	41.8
Ethylene	143.0	9.0
Formaldehyde	28.2	41.8
Methanol	99.3	54.9
Polyethylene	70.3	0.0
Polypropylene	69.8	58.9
Polystyrene	14.9	10.5
Polyvinyl Acetate	4.6	5.2
PVC	118.7	0
Propylene (merchant)	65.1	0.0
Soda Ash	573.7	509.9
Titanium Dioxide	116.9	96.7
Toluene	4.4	3.9
Total	5658.4	3631.1

#### Ukraine

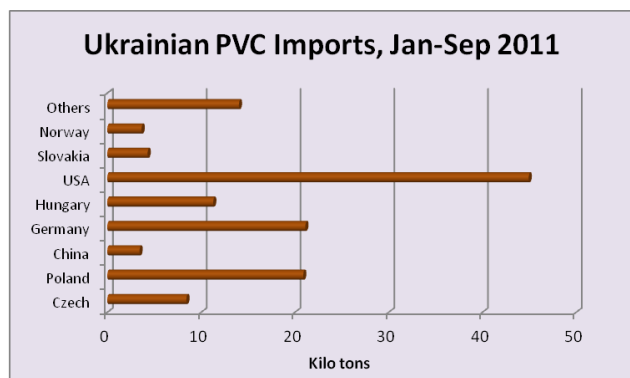
#### Ukrainian polymer trade

In the first nine months of 2011 the estimated rate of consumption of PVC in Ukraine increased 1.5 times against 2010 to 159,300 tons. Consumption has risen due partly to the availability of product from Karpatneftekhim from May onwards. Imports totalled 132,140 tons in the first three quarters. Karpatneftekhim produced 53,400 tons in this period of which 26,250 tons was exported. Imports were up 23% on the same period last year. The main source of imports into Ukraine has been from the USA accounting for 34% of shipments in the first three quarters.

In the first nine months of this year, the consumption of ABS plastics in Ukraine increased 18% over 2010 and amounted to 2,750 tons. From January to September 2011 Stirol exported 5,000 tons of polystyrene which was 60% more than in the same period in 2010. The share of exports in Stirol's polystyrene production is 34%.

For polypropylene Ukraine imports from a wide number of sources including Nizhnekamskneftekhim, Slovnaft, HIP

Petrohemija and TVK. Regarding HDPE, reduced production by Karpatneftehim in September led to a reduction in shipments abroad of the polymer.

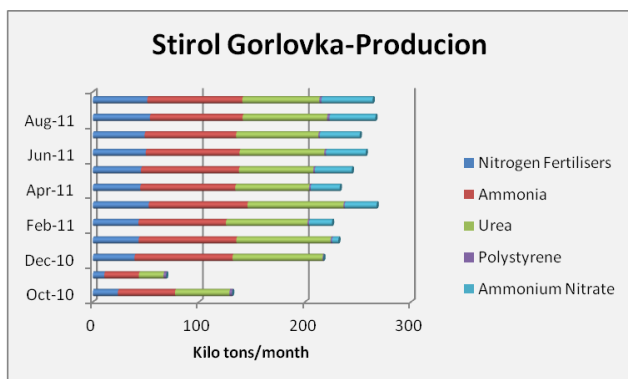


Overall Karpatneftekhim exported 60,430 tons of HDPE in the period January-September 2011. The main direction of shipments abroad is Russia (81% of the gross exports).

#### DF Group plans investments in petrochemicals

The DF Group, headed by Dmitry Firtash, is setting out plans to invest in the range of \$220-230 million in the Stirol chemical complex at Gorlovka from 2012 onwards in order to expand its existing facilities for fertiliser production and plastics. The DF Group controls four of the six nitrogen producers in Ukraine,

and intends to invest around \$2.8 billion over five years in developing chemical production. Since Ukrainian nitrogen enterprises have consolidated their assets under the tutelage of the DF Group, they have managed to increase their plant utilisation rates from a low point of around 20% of capacity up to 110%. More importantly they have been able to recapture 30% of the domestic market from Russian competitors, which they had previously lost due to the lack of capability to compete. Under the new regime, feedstock costs have declined enabling these plants to run far more profitably.



Firtash's other business interests include Crimean Titan (50% less one share), its subsidiaries Irshansk Mining and Processing Plant (Zhitomir region) and Volnogorsky Mining and Metallurgical Plant (Dnepropetrovsk region); Crimean Soda Plant (Krasnoperekopsk, Crimea), and Nadra Bank (Kiev). Outside Ukraine, he owns two plants: Nitrofert in Estonia and TajikAzot in Tajikistan.

#### Ukrainian organic chemicals

Ukraine imported 7,500 tons of phthalic anhydride in the first three quarters in 2011, 25% up on the same period last year. Rising supplies from abroad during this time

due to the significant increase in the domestic market amid the rapid growth of production of plasticizers in Ukrainian enterprises. The largest consumers of imported phthalic anhydride in the first nine months of 2011 were: plasticizer DOP producers with Polycom taking 27% of total imports and Lizinvest 17%. Imports were sourced in the first three quarters from Lakokraska at Lida in Belarus with 31% of shipments and Kamteks-Khimprom in Russia with 69%.

The main suppliers of imported DOP in to Ukraine include the Polish companies ZAK (515 tons), Boryszew (234 tons) and the Czech plan Deza plant (201 tons). In the first nine months of imports amounted to 7,980 tons, or 15% more than the same period last year. The increase the supply of plasticizer was due to the fact that this year imported DOP began to be bought by the Koryukovka factory technical papers due to increasing production of vinyl wall coverings. In the first nine months the company bought 756 tons of DOP from Poland.

#### Belarus

##### Belarussian Petrochemical Output (unit-kilo tons)

Product	Jan-Sep 11	Jan-Sep 10
Ethylene	110.5	104.3
Benzene	77.3	68.8
Caprolactam	97.4	94.6
Phthalic Anhydride	6.7	15.8
Polyethylene	103.5	102.6
PET	159.1	166.8

##### Belarussian feedstock costs

Since the start of 2011 Belarusian refineries had hoped to buy feedstocks under terms of a tripartite agreement as part of the customs union with Russia and Kazakhstan. The refineries at Mozyr and Novopolotsk should in theory be able to receive oil via pipelines from Russia without the need to pay duties.

However, despite having signed the relevant documents this has not been sufficient to abolish duties and in fact made it more difficult to process crude profitably. As a result both refineries are incurring losses and this effect has been felt down the line by petrochemical producers

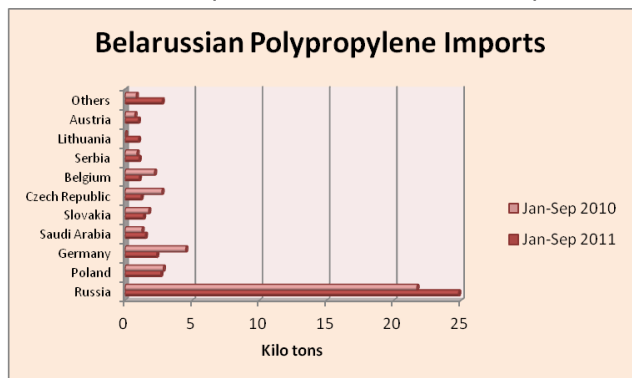
Polymir and Mogilevkhimvolokno which are currently losing annually about \$14-16 million. It is possible to purchased oil from non-Russian sources such as Venezuela and Azerbaijan, but this is more expensive and raising questions about future strategy.

### Belarussian phthalic anhydride, Jan-Sep 2011

From January to September 2011 Lakokraska in Belarus produced 14,800 tons of phthalic anhydride, which was 6% lower than for the same period last year. The Lida based plant exports to Russia where the leading buyer is Korund at Dzerzhinsk. Other consumers include ABC Farben), Russian Paints and Empils.

### Belarussian polypropylene market

In the first three quarters in 2011 Belarus imported 40,940 tons of polypropylene, of which about 1,400 tons was re-exported. Imports increased 14% over last year, most of which was imported from Russia. Other countries providing polypropylene include Saudi Arabia and Slovakia. From January to September Belarus imported 24,840 tons of Russian polypropylene, which accounted for 60% of total imports.



Belarus exported 7,800 tons of LDPE in September which is 24% higher than in August. The main direction of shipments was Russia and Ukraine. A significant increase in the volume of shipments to Russia was recorded due to a shortage of LDPE in

the Russian market due to maintenance. In the first nine months of 2011 Belarus exported 58,600 tons of LDPE which is 4% lower than the same period in 2010.

## Central Asia

### Uzbekneftegaz-Indorama

Uzbekneftegaz and the Indorama Group plan to create a JV in the first quarter in 2012 to build a gas chemical complex in Kashkadarya region in the south of Uzbekistan worth \$2.5 billion. The complex will be based at the Mubarek Gas Processing Plant, with the pre-feasibility study already underway. The project envisages the construction of a cracker to produce 500,000 tpa of ethylene which will be fed into polyethylene. The construction period is estimated at four years, with start-up forecasted for 2016 or 2017.

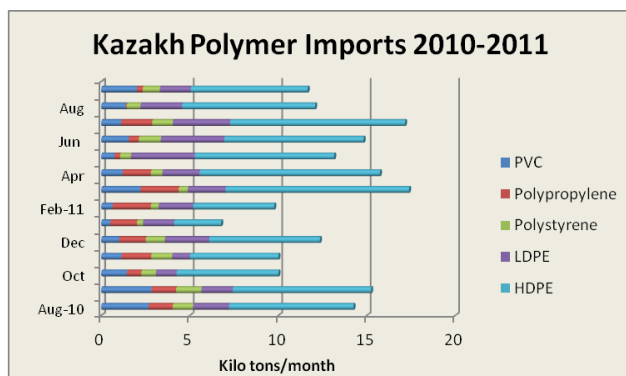


In terms of finance the project will be serviced by funds from three main sources including those raised by Indorama, credit from the Reconstruction and Development Fund of Uzbekistan and finance provided by Uzbekneftegaz. In 2010, Uzbekneftegaz and Indorama signed a memorandum of cooperation to create a diversified manufacturing complex for polyethylene on the basis of the Mubarek gas processing plant.

The Mubarek Gas Processing Plant was commissioned in 1971, and its present capacity is about 30 billion cubic metres per annum of natural gas production and more than 570,000 tpa of gas condensate. In 2001, Uzbekneftegaz started the

Shurtan Gas Chemical Complex also in Kashkadarya worth \$985 million. The complex includes a capacity of 3.9 billion cubic metres per annum and 125,000 tpa of polyethylene.

In addition to the JV with Indorama, Uzbekneftegaz has signed agreements with a consortium of Korean companies led by Kogas for the construction of a petrochemical complex. This is based on the Surgil deposits in the north west of Uzbekistan and involves the creation of the Ustyurt Gas-Chemical Complex. Its design capacity will allow to the complex process 4 billion cubic metres per annum of natural gas, in addition to 400,000 tpa of polyethylene and 100,000 tpa of polypropylene. The total project cost is estimated at \$4.2 billion.



#### **Kazakh polyethylene consumption**

In the first nine months of 2011 Kazakh consumption of polyethylene amounted to 90,019 tons, a 32% increase over the same period in 2010. HDPE accounted for 67,516 tons of consumption and LDPE 22,503 tons. Polymer imports into Kazakhstan vary quite considerably from month to month, although the general volume trend is upwards.

#### **SOCAR-petrochemical investments**

SOCAR has presented to the government and the administration of President's feasibility study of a new petrochemical complex worth \$15 billion. The complex envisages consisting of a gas processing, oil refining and petrochemical plants.

The capacity of the gas processing plant will be the first phase of 10 billion cubic metres of gas per annum increasing to 15 billion cubic metres. Refinery capacity, including more than 20 process units will be 10 million tpa of oil. The petrochemical complex will produce 670,000 tpa of polyethylene and 550,000 tpa of polypropylene. The cost of the complex is estimated at \$15 billion 30% of this amount will be invested most of SOCAR and the government, others by bringing in external funding.



*Relevant Currencies*

Czech crown. Kc. \$1= 20.85. €1 = 25.5671: Hungarian Forint. Ft. \$1 = 223.5. €1 = 274.065: Polish zloty. zl. \$1=3.1135. €1 =4.065: Bulgarian leva: \$1 = 1.5956. €1= 1.9596: Romanian Lei. \$1 = 3.4151. €1= 4.187: Croatian Kuna HRK. \$1 = 5.9239. €1= 7.2641: Ukrainian hryvnia. \$1 = 7.931. €1 = 9.7253: Rus rouble. \$1 = 31.022. €1= 38.0405

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