

DEAR READERS,

for the eleventh year in a row, we are pleased to be presenting the 'Oil Industry and Trade' Report elaborated by the experts from the Polish Organisation of Oil Industry and Trade (POPiHN), which contains statistics, comments and information describing the situation in the liquid fuels sector in Poland, fuel production in domestic refineries, logistics, wholesale and retail trade, as well as lubricating oils production and trade. Our Report also presents main challenges faced by POPiHN members and the whole fuel sector.

Fuel production and trade in Poland are of key importance to the entire economy, employment and state budget revenues. The value of the retail market for fuel sales in Poland is estimated at approximately 100 bn PLN. POPiHN members for years have topped the lists of the biggest Polish companies, constituting an important element of the country's economy, at the same time being a strong partner for administration and local communities. They are valued employers, act as role models in the area of innovation, and also corporate social responsibility.

It is even more pleasant that the Report, which summarizes the situation in the sector throughout 2017, in its vast majority contains good news. As a result of decisive actions undertaken by the government it was possible to successfully and almost completely solve the problem of grey and black economy, which for years had bothered businesses operating on the market in compliance with the law, causing huge losses in tax revenues and the whole state budget.


Adopting and implementing the so-called fuel, energy and transport packages was of key importance, and so was a significant activation of control authorities.

The cooperation among state institutions and individual POPiHN members also played a crucial role in solving the above problem.

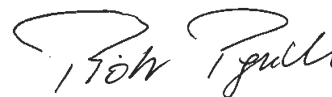
The Report you are reading was compiled on the basis of data obtained from analysing POPiHN's own information sources, monitoring of data acquired from POPiHN members, market observation, as well as the information provided by the Ministry of Finance. Similarly to the previous years, it was particularly difficult to assess the overall market due to the estimated character of data for that part of the oil and fuel market which extends beyond POPiHN members.

We recommend the 'Oil Industry and Trade 2017' Report and wish you a pleasant reading.

Leszek Wiecech
President and Director General



Piotr Pyrich
Chairman of the Board of Directors



POPIHN MEMBERS



AMIC Polska Sp. z o.o.



BP Europa SE

CIRCLE K Polska
Sp. z o.o.Fuchs Oil Corporation (PL)
Sp. z o. o.

Grupa LOTOS S.A.



PERN S.A.



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Shell Polska Sp. z o.o.

Slovnaft Polska S.A.
– MOL GroupTanQuid Polska
Sp. z o.o.TOTAL Polska
Sp. z o.o.

STRUCTURE OF THE ORGANIZATION

GENERAL MEETING

BOARD OF DIRECTORS

Supervisory body appointed by the General Meeting for a three-year term of office. Current term of office is May 2016 – May 2019

Piotr Pyrich	– BP Europa SE – Chairman of the Board of Directors
Piotr Dziwok	– Shell Polska Sp. z o.o. – Vice-Chairman of the Board of Directors
Krzysztof Starzec	– Circle K Sp. z o.o.
Marcin Jastrzębski	– Grupa LOTOS S.A.
Zbigniew Leszczyński	– PKN ORLEN S.A.
Igor Wasilewski	– PERN S.A.
Tomasz Rybczak	– Slovnaft Polska S.A. – MOL Group
Paweł Stańczyk	– (formerly OLPP)

MANAGEMENT BOARD

CHAIRMAN-DIRECTOR GENERAL – appointed by the Board of Directors for a three-year term of office.

Leszek Wiecech – President and Director General
Current, second term of office is 1 January 2017-31 December 2019.

OFFICE

Krzysztof Romaniuk	– Director of Fuels Market Analysis
Marcin Szponder	– Director for Market Regulation
Joanna Lewandowska	– Office Manager

THE REPORT USES THE FOLLOWING CONVERSION VALUES:

1 barrel of crude oil (1 bbl) = 159 litres
1 ton of crude oil = 7.26 bbl

PRODUCT DENSITIES USED IN MASS TO VOLUME CONVERSIONS IN 1ST QUARTER OF 2017:

Petrol	.0,736 Mg/m ³
Diesel	.0,831 Mg/m ³
Light fuel oil	.0,829 Mg/m ³
LPG	.0,561 Mg/m ³

PRODUCT DENSITIES USED IN MASS TO VOLUME CONVERSIONS IN 2ND QUARTER OF 2017:

Petrol	.0,735 Mg/m ³
Diesel	.0,836 Mg/m ³
Light fuel oil	.0,827 Mg/m ³
LPG	.0,561 Mg/m ³

PRODUCT DENSITIES USED IN MASS TO VOLUME CONVERSIONS IN 3RD QUARTER OF 2017:

Petrol	.0,747 Mg/m ³
Diesel	.0,831 Mg/m ³
Light fuel oil	.0,827 Mg/m ³
LPG	.0,560 Mg/m ³

PRODUCT DENSITIES USED IN MASS TO VOLUME CONVERSIONS IN 4TH QUARTER OF 2017:

Petrol	.0,748 Mg/m ³
Diesel	.0,833 Mg/m ³
Light fuel oil	.0,827 Mg/m ³
LPG	.0,560 Mg/m ³

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FEEDSTOCK SUPPLY PIPELINE NETWORK



MAIN PROBLEMS OF THE FUEL SECTOR IN POLAND

1 FUEL INFRASTRUCTURE AND LOGISTICS, MANDATORY STOCKS

Limiting the scope of crime in fuel trade led to an increase in fuel supplies carried out by law-abiding companies, which comply with all legal obligations related to fuel trade, among other things including maintaining mandatory stock reserves. In the diesel segment we could observe an increase in imports share in the entire consumption from 16% to 26%, which is of significance from the point of view of the country's energetic security.

All this showed that the infrastructural resources in place are insufficient, and in the near future there may occur shortages in the storage facilities for liquid fuels.

This is mainly due to the failure to implement major investments in petroleum infrastructure in the several recent years.

The existing infrastructure was sufficient to serve the market, given the significant share of fuel from illegal sources.

Another operational issue, which obstructs the effective transport of liquid fuels by road tankers, are the axle weight limits of some roads leading to fuel terminals, which are due to either the decision of local authorities or/and road category. It causes the necessity to obtain individual access licenses for road tankers. Another issue to be resolved is eliminating the problem of dishonest drivers, caught red-handed while stealing fuel from depots or carrying out transport operations.

OUR POSITION

It is necessary to ensure the required storage infrastructure capacity for liquid fuels in Poland by urgently launching investments in this area, as well as in the area of pipeline logistics. The functioning of the system would be undoubtedly improved by increasing the volume of crude oil and fuels stored by the Material Reserves Agency within intervention stocks, and thus lowering the level of mandatory stock reserves stored by business operators, as well as increasing the pool of agency stocks in the Material Reserves Agency. In order to improve the capacity balance of storage facilities it seems reasonable to relocate agency stocks from aboveground storage depots to underground facilities. It is, furthermore, indispensable to urgently invest in this area and enlarge storage capacities in the country.

It is necessary to implement changes to the regulations on the entry into service of vehicles with a load bearing capacity of 11.5 tonnes per axle, according to the EU regulations. The above would enable smooth road-based logistics on Polish roads.

We propose undertaking the work on the revision of regulations on sanctions imposed on dishonest drivers concerning the loss of driving license by returning to the regulations once included in the act on road transport (suspension or disqualification of drivers who have been finally convicted of fuel theft).

2 ALTERNATIVE FUELS AND THEIR INFRASTRUCTURE

Following the central authorities of some other states, the Polish government has taken measures to support and promote the use of alternative fuels, as well as to extend the infrastructure in this field at the expense of traditional motor fuels. The respective statutory provisions for the promotion of electromobility, FCEV, PHEV, CNG, LNG and LPG have been adopted. Selected technologies are promoted, without taking into account the environmental, economic and social costs, particularly with regard to the existing electric vehicle technologies. The measures aimed at the improvement of air quality in city centres do not consider the state of knowledge of the real causes of pollution and the difference between the diesel and petrol engine emissions, or the constant development of combustion engines resulting in a minimum exhaust gas emission of modern engines which comply with the EURO 6 standard. Furthermore, the electrification of transportation will not solve the issue of smog, as the particulate matter (PM) is mostly emitted in places other than the engine, usually by the traction between the tyres and road surface. The above depends on the vehicle's weight, and electric vehicles tend to be considerably heavier than vehicles emitting exhaust. The fiscal issues, i.e. the huge share of taxes on fuels in the total tax revenue, are not taken into account either.

OUR POSITION

The measures for promotional support of alternative fuels should take into account the collective knowledge of the impact of single types of propulsion on the environment in the entire process of production, exploitation and recycling. One should also consider the challenges related to the excessively rapid development of electromobility, which is based on the existing technologies; these include the lack of adequate capacities within the energy sector, outdated transmission network, and, last but not least, the fact that nearly the entire energy production in Poland is coal-based.

While implementing air quality improvement programmes, the local authorities, apart from the investments in electric vehicles, should also consider more cost-effective solutions, such as the elimination of coal heating in dispersed installations, the elimination of waste incineration – including incineration of waste oils, rigorous technical controls of vehicles with regard to the fulfillment of emission standards defined for the approval of a given type, and, last but not least, the purchase of state-of-the-art buses equipped with combustion engines compliant with the Euro 6d standard, which are several dozen percent less expensive than electric buses. These vehicles are particularly effective with the use of advanced environment-friendly biofuels. Furthermore, should Polish municipal authorities take decisions with regard to the restriction on entry into city centres, these solutions should comply with similar regulations in other cities within the EU (an initiative for the implementation of standard

Fot. PKN ORLEN



emission performance marking system for vehicles is currently being discussed). We also believe that for the full implementation of the Directive 2014/94/EU, Poland should support all available solutions regarding alternative fuels and consider them on an equal footing.

3 CONTINUATION OF MEASURES FOR COMBATING FUEL-TRADE-RELATED CRIME

The activities undertaken by the government in 2016/2017 (fuel, energy and transport package – the so-called SENT) led to significant crime reduction in fuel trade and an increase in official fuel consumption. Nevertheless, due to remarkable profitability of the so-called grey and black zone in fuel trading, it can be expected that the criminals will exploit on a wider scale the traditional methods of bypassing regulations (removal of dye from fuel oil, use of marine fuel, agricultural fuel, base oils), and seek for new fraud opportunities (smuggling fuel in vehicles that are not capable of transporting it).

OUR POSITION

For further containment of criminal activity, it is necessary to constantly observe the market, continue the cooperation between the administrative authorities and the industry, and maintaining high standards of control, including on the road inspections, conducted by the National Revenue Administration (KAS) and other institutions, even when reaching a zero level of detection. On the other hand, the implemented solutions (registration within the SENT system) should not pose an excessive burden on business operators who operate in compliance with the law. It is necessary to

33%

Share of diesel oil imports in total consumption.

strengthen the Polish Energy Regulatory Office (URE) as the body which coordinates the supervisory activities over the industry, enhance the horizontal cooperation between single institutions, provide a complete digitization of data and consolidate them in a single system of record, the so called fuel platform, and a full use of tools provided by the applicable law. We propose that the licensing process be tightened up and the solutions adopted in each of the packages improved. For this purpose, it is desirable to analyse the effectiveness of the solutions in place and implement changes aimed at eliminating the observed deficiencies, e.g. in certain provisions of the energy package and implementing regulations adopted pursuant to it (e.g. the issue of determining the disposition activity, the provisions of the regulation on a model report on types and quantities of produced, imported and exported liquid fuels, and their intended use). We also recognize the need to implement further changes in the law (transfer of the reimbursement procedure for excise duty on agricultural fuel from commune and municipality offices to the National Revenue Administration, harmonization of the excise duty on products of similar physical-chemical composition, such as diesel oil, light fuel oil, LPG for heating purposes and autogas).



Fot. BP

4 TAX REGULATIONS

In 2017 the government assumed work on a series of tax-related legal acts, part of which have been passed as laws and regulations that enter into force in 2018 (e.g. so-called divided payment). The new regulations refer to both the fuel industry and other industry sectors. Their implementation and application will represent a significant challenge for both administrative bodies and fuel industry. Furthermore, new solutions are being planned; these include the implementation of online fiscal cash registers, the reliable taxpayer status, e-DD. In the opinion of POPIHN, a major convenience for the taxpayers would result from the harmonization of settlement rules for taxes and local fees and the introduction of standardized tax return forms, particularly for the real property tax.

For a number of years we have pointed out the problems with the interpretations of rules concerning the calculation of fuel surcharge.

Furthermore, the new arrangements (presented by the Ministry of Finance) for the supervision of the trade in exempt goods (eDD) do not take into account the nature of the industry sector, particularly with reference to aircraft refueling. In the absence of alternative statutory solutions, POPIHN expresses serious concerns regarding potential operational problems of aircraft refueling at airports.

OUR POSITION

We believe that the authorities should implement new regulations in a manner which will minimize the costs for business operators. The excise duty provisions should

take into account the nature of the industry sector, particularly with regard to the refueling of aircraft, marine and river vessels. Furthermore, it is necessary to ensure that there is no duplication of reporting and processes which appear in various systems simultaneously (e.g. e-DD versus SENT). The entities should be given the right to choose in which system they operate, the databases of both systems should be consolidated and it should be provided that the dates of implementing major changes concerning the industry, e.g. online fiscal cash registers, do not distort daily business operations.

With regard to the real property tax we propose that the definition of construction be laid down in the act on local taxes and fees without referring to the provisions of the construction law, the implementation of standardized country-wide interpretations regarding real property tax on typical infrastructure of a petrol station, i.e. dispensers and other facilities, the implementation of central database of tax rates applicable in each individual commune or municipality, the implementation of a single, standardized country-wide tax return form.

To address numerous interpretative doubts concerning the fuel surcharge, we propose that the fuel surcharge be redefined with regard to its scope and rules for its payment.

Transparent and stable provisions in the tax registration, taking into consideration the specificity of the industry, constitute the basis for its further development and future investment.

5 PAYMENT SERVICES

The ongoing process of implementing the Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market (PSD2) entails the risk of adopting inadequate solutions regarding fuel cards. So far, these cards have been exempt from the scope of Directive PSD1 in compliance with the co-called Limited Network Exemption. The doubts arise over the new, narrower definition of exemption stipulated by the draft Polish law amending the act on payment services and some other acts.

OUR POSITION

We believe that fuel cards, as it has been the case so far, should not be considered on an equal footing with payment cards, and the activity of enterprises offering fuel cards should not be subject to the supervision of the Polish Financial Supervision Authority (KNF).

6 LUBRICANTS (TAXATION AND GREY MARKET)

The implementation of energy package, as well as the transportation package (SENT) has imposed new requirements with regard to reporting and mandatory fuel stocks on enterprises operating in the field of oil production and sales. It complicates the workings of the industry and increases its operating costs.

For years, the lubricating oil sector has been struggling with grey zone practices consisting in marketing mineral oils (classified within the Combined Nomenclature under CN 2710 group code) as synthetic oils (and therefore classified under CN 3403 group code). This is due to the fact that mineral oils are subject to effective excise duty rate of 1,180 PLN per 1000 litres, which does not apply to synthetic oils.

Another problem consists in unauthorised retail sales of lubricating oils, imported to Poland from the countries in which they are not subject to excise duty tax. It results from the absence of a single policy of the EU Member States and the European Commission with this regard in a situation when in some Member States, including Poland, lubricating oils are subject to excise duty tax, and consequently covered by EMCS, whereas in other Member States they are not. It distorts the functioning of the market and facilitates grey zone practices. For years, we have also observed the practice of illegal incineration of used lubricating oils (so-called waste oils), which distorts the functioning of the recycling system, undermines the legal trade in fuel oils and has a negative impact on the quality of air, as well as constitutes an infringement of excise duty regulations. The problem assumes particular relevance in the view of ongoing works within the EU on the modification of Framework Waste Directive, which are aimed towards imposing the rules of the co-called circular economy on the management of waste oil that will entail a considerable tightening of waste oil collection and recycling levels required by the Commission, which may jeopardize Poland's effective capacity to meet the increased environmental requirements.

OUR POSITION

We support the adoption of arrangements to minimize the negative impacts of the implementation of energy package and SENT for the sector of lubricating oils, with maintaining its protective function on the liquid fuel market.

For reducing the size of the grey market for the sales of lubricating oil, we propose that a single excise duty rate on 'synthetic' (CN 3403) and 'mineral' (CN 2710) lubricating oils be introduced levied on all lubricants, on the assumption that the new value of the single standardized tax is calculated as a weighted average from the tax burden on both CN 2710 and CN 3403 codes, so that the total value of excise duty within the lubricating oil sector remains at a level approximate to present. We also propose that the monitoring of marketing lubricating oils imported from abroad in breach of the excise duty provisions be tightened. The National Revenue Administration should monitor the commercial offers, including offers posted on internet platforms, in this regard. We believe that a comprehensive solution to this issue will be possible only if lubricating oils are covered by EMCS within the entire territory of the European Union.

Environmental protection services and the National Revenue Administration should engage far more actively in combating the practices of waste oil incineration, since only in this way it is possible to ensure the required recycling levels.

7 QUALITY OF FUELS

The fuels marketed in Poland meet all applicable quality standards and ensure undisturbed vehicle exploitation. This is confirmed by increasingly better results of fuel quality tests conducted by the Poland's Trading Standards Authority.

In the recent months the process of the implementation of EU directives on the introduction of fuels from renewable sources in Poland has gained its momentum. The entry-into-force of the Act of 24 November 2017 on Biocomponents and liquid biofuels and amendments to certain acts provides opportunities for launching advanced biofuels to the Polish market and the double accounting of the National Indicative Target (NCW). However, the separation of the National Reduction Target (NCR) and the National Indicative Target still remains a challenge, and so do the technical issues related to advanced biofuels. For the situation on the market, the levels of compulsory quarterly blending, which start to apply in 2018, will remain fundamental. The EU regulations related to the so-called ILUC directive reduce the use of first-generation biofuels to a 7% level by 2020. Furthermore, they oblige the member states to promote the so-called advanced biofuels. On the other hand, the proposed RED II Directive restricts the use of biocomponents/biofuels produced from food crops to the level not higher than 3.8% in 2030, while maintaining the existing restriction of 7% in 2020.

In the course of the year, EU law compliant regulations on EU-wide, single and common fuel labelling will enter into force. Even though their aim is to help consumers make an informed choice, the new labels may initially result in consumer misapprehension.

OUR POSITION

We believe that there is a necessity to ensure such interpretation of the provisions of the act on biofuels which is consistent with the industry's interests. In order to eliminate the B100 biofuel from the market, which is often used to carry out VAT-related frauds and avoid the necessity to fulfill the NBT, we propose reducing the National Biofuels Target to the level which is possible to meet by means of obligatory blending.

The position adopted by the Polish government, consistent with the interest of POPiHN members, as to further development of regulations in terms of fuel quality and fuels based on renewable energy sources, as well as presenting this position on the EU forum, for example during a 'refining roundtable' forum.

In terms of fuel labelling we consider it is fundamental to rely on the norm EN16942

20_m PLN

The value of stolen fuel.



Fot. SHELL

8 THEFTS AND DRIVE-OFFS AT FILLING STATIONS, SAFETY AT MSAS (MOTORWAY SERVICE AREAS, PL: MOP)

There is a problem that remains unsolved, namely thefts at filling stations (fuel and other goods theft incidents), as well as ensuring the safety of customers who park their cars at Motorway Service Areas. The number of drive-offs amounts to approximately 100,000 per year, whereas the total value of stolen fuel can be estimated at over 20 m. PLN annually.

In the experts' opinion, an increase in the number of such acts is to a considerable degree caused by changes to the Article 19 of the Code of Administrative Offences, introduced in 2013 and raising the theft value threshold above which such an act is classified as crime from the present 250 PLN to ¼ of the minimum salary, which is approximately 420 PLN. The dispersion of actions undertaken to fight against these types of infringements among various police units, as well as the impossibility of reporting such incidents in an electronic form continue to be problematic areas.

Particularly worrying is the observed increasing boldness of thieves along with the professionalization of their community, which finds expression in creating ever larger and better organized criminal groups, specialized in such practices. It also concerns carrying out illegal trade at MSAs, very often involving counterfeit or stolen products.

OUR POSITION

POPiHN supports the actions taken by the Ministry of Justice with regard to the categorization of offences (particularly a series of thefts) and enabling the Police to collect and process data on offenders by the establishment of an electronic register of offenders which the industry has awaited for many years. The above mentioned proposals, which our sector has been outlining since 2015, have been reflected in the draft amendments to the Code of Petty Offences prepared by the Ministry of Justice. It is necessary to adopt the solutions worked out by the Ministry of Justice as quickly as possible. Due to the priority importance of the above mentioned initiative for the fuel sector in Poland, we want to stress that its final effectiveness will significantly depend on specific solutions which should, to the fullest extent possible, also take into account the specific nature of the fuel industry.

Introducing an electronic application form for reporting offences in a system controlled by the Ministry of the Interior and Administration would significantly facilitate fighting offences.

Furthermore, we believe that it is necessary to implement changes in law which will cause that the falsification as well as the use of stolen number plates is considered on an equal footing with the falsification of documents.

We believe it is necessary to:

a. enable the Police to collect and process data on offenders (creating a register of offences) - introducing changes to the Paragraph 2a Article 20 of the Act on the Police);



Fot. SLOVNAFT

b. change the legal qualification of a series of thefts by classifying it as a continuous offence (Article 11 of the Polish Penal Code), as well as introduce changes to the definition of an 'audacious robbery' and enable the application of Article 38 of the Code of Administrative Offences (so-called recidivism);

c. restore the original provision of the Article 208 of the 1967 Polish Penal Code, which penalizes particularly audacious robberies irrespective of their subject's value and apply this qualification to theft incidents on filling stations and in other retail points;

d. introduce changes to the Act on Personal Data Protection allowing for maintaining databases and exchanging information between business owners on theft incidents

9 RETAIL TRADE AT FILLING STATIONS

Non-fuel sales are playing an increasingly significant role in the functioning of filling stations, constituting a substantial part of their revenues and encouraging the process of transforming them into centres offering customer services. It is expected that this role will grow in significance, alongside the increase of alternative fuels share in transport. Filling stations play an important role in satisfying basic needs of the economy and the society. With reference to travellers using cars or buses, they function similarly to bus and railway stations, as well as river and sea ports and airports for other means of transport. Filling stations, thus, provide a comprehensive service to the road users - apart from filling the tank, drivers and passengers use toilets, recreational spaces, purchase meals in restaurants

and fast food bars, shops etc. The stations localized along traffic routes are very often the only places offering free-access amenities, including toilets and running water. They are also places that ensure the safety of road traffic by providing the possibility to rest or supply the car with goods necessary for vehicle maintenance, very often the only ones open during holidays and non-working days. Filling stations also provide a natural back-up support in emergency situations and therefore are an essential element in ensuring safety and public order. The experience shows that during natural disasters an efficient network of filling stations allows for an effective functioning of both security and rescue service vehicles (Police, fire services, ambulance services etc.), and the affected population, who can purchase the supplies of the essential products.

Due to that, any initiatives aimed at imposing restrictions on the functioning of filling stations on certain days, as well as the restrictions on the range of offered goods pose a threat to the enterprises which run filling stations. The potential changes would lead to an increase in the price of offered fuel and to the elimination of a part of filling stations from the market.

Sales of alcohol

In the wake of significant margin fluctuations many filling stations are able to continue their operations thanks to the sale of non-fuel goods and services, including alcohol. We should bear in mind that fuel price is largely influenced by taxes and other burdens; on average, in 2016 they represented 55% of the EU95 petrol price, 52% of the diesel price and 41% of the autogas price.

Market research conducted in 2013 showed that just slightly over 3% of spirits are purchased by the customers at filling stations, which is a downtrend compared to 2012. For beer it is less than 4%, which is also less than in the comparable period of 2012. Moreover, it is the filling stations which, due to the existing surveillance systems, provide the best possible enforcement of regulations prohibiting the sale of alcohol to minors and drunk persons. The experience of countries which have imposed a full or partial prohibition on the sale of alcohol on filling stations (the Netherlands, Belgium) shows that there is no correlation between the availability of alcohol on filling stations and the number of drunk drivers.

Sales of over-the-counter medicines

At the stations only the basic medicines are offered, i.e. medicines which are sought and purchased to provide ad hoc emergency relief. The impediments to the availability of the basic OTC medicines for the road users seeking a fast and safe solution to their health complaints might have a negative impact on road traffic safety. The possibility of purchase at the stations is used by drivers and passengers, as well as local residents, particularly in small localities and rural areas. The sales of OTC drugs in such places means the fulfillment of the patients' right to a possibly quick and simple access to medicines. This is particularly the case at night hours and on non-working days.

The sales of OTC drugs represents an almost non-existent share of a station's turnover and does not have any vital influence on its economic situation. On the other hand, the distribution of this category of goods significantly supports the sales of small, independent stations which are often located in rural areas. The current model on non-pharmacy trade in OTC medicines has a long-established tradition in Poland. The level of OTC drug sales on filling stations has remained stable for many years, and the range has usually been limited to fewer than 30 products. The medicines which are sold at filling stations are delivered by pharmaceutical wholesale distributors and come as a minimum therapeutic dose, sold in packaging that is sufficient for 1-1.5 days of using the drug. It has been shown in practice that in case a larger amount or dose of OTC medicine is required, clients tend to go to pharmacies.

OUR POSITION

We find it fundamental that consumers and decision-makers understand that a filling station ceases to be merely a place where fuel is sold and turns into a site offering distinct consumer services, at the same time gradually assuming a new role and importance in emergency situations.

We expect that the prices on the fuel market will be shaped exclusively by the economic factors, and that the adopted regulations will not cause a further, baseless increase in the prices. We are against any actions which may cause a restriction to the range of goods and services offered at filling stations, e.g. by restricting the operations of filling stations and their shops on Sundays or limiting the sales of alcohol or drugs. The only measurable effect of imposing the proposed restrictions

would be a further deterioration in the already difficult situation within the oil sector, especially in the case of filling stations which operate as independent ones. Trading in goods other than fuels allows the filling stations to operate in their current number and market format. Restricting the available number of goods and services would bring an increase in the sites' operational costs along with a rise in fuel prices.

As regards implementing restrictions on the range of products and the sizes of OTC drug packages, we are of the opinion that any restrictions should be implemented in all channels of trade, including pharmacies, as incorrect medication usage or attempted suicide do not depend on the place where one purchases drugs.

Furthermore, any changes regarding the sale of alcohol should apply to the whole distribution network, and not just filling stations.

10 PETROLEUM LAW

Even though the implementation of effective arrangements for combating the grey zone practices (fuel package, energy package, transportation package) has contributed to solving the key problems of the liquid fuel sector, it has also highlighted the issues with which the sector has struggled for years, i.e. the lack of single supervision, the lack of a regulator dedicated exclusively to the fuel sector, inconsistency of individual legal acts (bio, quality, inventory, SENT, technical and construction, and excise duty provisions etc.), as well as the lack of consolidation and digitization of data shared with various institutions.

OUR POSITION

We propose that the Ministry of Energy undertake work on elaborating the provisions of petroleum law, which would contain harmonised definitions and regulations relating to introducing liquid fuels onto the market, including regulations on quality, stocks, fuel surcharge, etc., as well as introduce databases and registers in an electronic form, ideally in the form of harmonised platform. One of the elements of such regulations should be the establishment of an office – a regulatory body dedicated to the fuel sector, exercising supervision and control over production, logistics and fuel trade. Elaborating the project should be entrusted to a working party composed of the representatives of administration and professional organizations within the fuel sector.

11 COMPETITIVENESS OF POLISH AND EUROPEAN REFINING BUSINESS

In the European Union there is an ongoing debate on the shape of longstanding energy-climate and transport policies in the context of limiting/eliminating traffic-related emissions of greenhouse gases. The adjustment to the requirements of the low-carbon economy poses a serious challenge for the European refinery industry. This challenge was taken



Fot. LOTOS

by the groups of experts from European petroleum companies, which are working out both the methods for reducing the emission of greenhouse gases in the process of motor fuel production and the concept of 'low-carbon' transportation fuels. Unfortunately, the political debate on the EU forum is often dominated by attitudes which are irrespective of the rules of technological neutrality and the optimization of economic, environmental and social costs. This leads to the intensification of actions related to working out policies and regulations imposing huge burdens on the European refinery business and decreasing its competitiveness, such like the support of alternative fuels and electromobility, regulations on the quality of air in towns and cities, the ETS reforms, the revision of the directive on renewable energy sources, REACH etc.

At the same time in the EU the Refining Forum has been established, composed of the representatives of the sector, EU administration and the member states; the solutions, collectively adopted within the forum, will have a direct impact on the future of the refining industry in Europe. They should

take into account that in the medium term oil will remain the main source of energy for transport. Poorly thought-out legal regulations, which do not take into account the interests of not just the refining sector, but also related sectors of the economy, could lead to the collapse of the sector and the relocation of production outside the EU. This would have disastrous consequences for the entire EU economy, as well as its energy security. It is also a classic example of the so-called carbon leakage.

OUR POSITION

We believe that it is necessary to conduct a complete calculation of advantages which the European Union gains from the operations of the refinery industry within its territory. State-of-the-art solutions in the field of motor engine construction should also be appreciated, just like the role of the European refinery business in the entire EU economy and defense policy. We hope that the position of the Polish government on the EU forum will take into account the interest of the fuel sector to the maximum possible extent.

PROCESSING OF CRUDE OIL

In 2017 Polish refineries processed 2% less crude oil than in the year 2016. Total production amounted to 25.3 m. tonnes, i.e. 500,000 tonnes less than in the previous year. A small decrease in total amount of processed crude oil resulted mostly from a break in the refinery production in Grupa LOTOS during a monthly maintenance standstill carried out in the first half of the year. Even though crude oil was on average 24% more expensive throughout the year, those price increases did not interfere with achieving good margins on refining and petrochemical production. The second half of 2017 was better by about 3 m. tonnes in terms of production equipment utilisation. The above was largely influenced by resuming production in Gdańsk, as well as increased domestic demand for liquid fuels caused by reducing the scope of grey and black market. In the second half of the previous year 14.2 m. tonnes of crude oil were processed, compared to 11.1 m. tonnes in the first half of the year.

Processing of crude oil in PKN ORLEN amounted to 15.5 m. tonnes, and in Grupa LOTOS to 9.8 m. tonnes.

The East remained the dominant direction for oil supplies to Polish refineries, as in previous years, yet at the same time there was a greater diversification of supply sources. Among newly emerged directions for oil supplies were, for example, the USA and Canada. The share of REBCO crude oil in supply decreased from 81% in 2016 to 77% in 2017. Despite

increasing diversification, oil brought from the eastern direction remains the dominant one due to long-term contracts, attractive price, technological adjustment of refineries and utilisation of long-distance pipelines, which are the optimum mode of transportation of crude oil. Crude oil from domestic supplies (Petrobaltic, PGNiG) was also used for processing. Crude oil other than REBCO in the structure of supplies of PKN ORLEN constituted 21% (9 percentage points more than in the previous year), whereas for Grupa LOTOS it was slightly more than 18% of supplies. For both Polish oil companies overall crude oil other than REBCO constituted 20% of supplies.

The structure of crude oil supplies to domestic refineries is presented in Fig. 2. It continues to show the dominance of REBCO, even though Polish refineries benefit from favourable purchase conditions or test other types of crude oil, bringing in more and more supplies from other directions. In this way they diversify their supply sources, using for this purpose the installations of Port Północny in Gdańsk. In 2017 about 20 m. tonnes of REBCO crude oil were brought to Poland (which is about 1 m. tonnes less than in 2016), out of which about 17 m. tonnes (i.e. about 2 m. tonnes less) were transported via the pipeline owned by Przedsiębiorstwo Eksploatacji Rurociągów Naftowych S.A. (PERN S.A.) from the eastern direction. The remaining oil was brought to Polish refineries via the port facilities of Naftoport in Gdańsk, and in case of domestic production via rail transport.

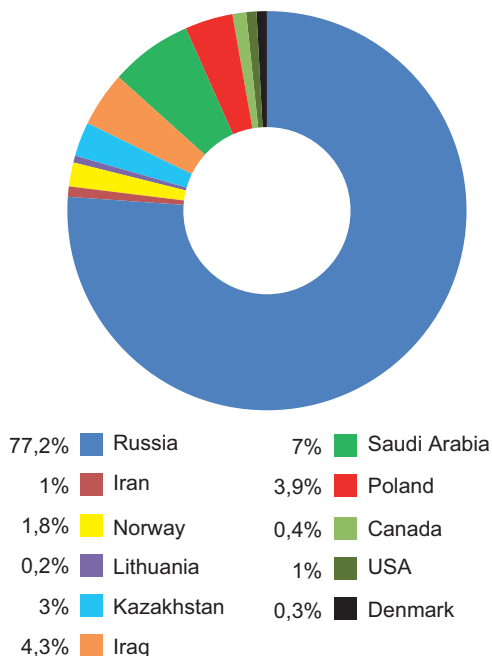
FIG. 1 PROCESSING OF CRUDE OIL – DATA FOR 2016 AND 2017 in m tonnes

Source: POPIHN's own data

Description	2016	2017	Reference 2016=100
OVERALL	25,8	25,3	98

FIG. 2 SHARE OF CRUDE OIL SUPPLIES TO DOMESTIC REFINERIES IN 2017 [%]

Source: POPIHN's own data



PRODUCTION OF LIQUID FUELS

Liquid fuel production in 2017 (Fig. 3) of petrol (P), diesel (D), liquefied petroleum gas LPG, JET aviation fuel, light fuel oil (LFO) and heavy fuel oil (HFO) amounted to 25.4 m. m³.

The above means that in terms of products coming from Polish refineries and blending fuels, 1% more liquid fuel products entered the market than in 2016.

An increase in total liquid fuel production, when compared to the previous year, equalled around 300,000 m³.

Due to a successful elimination of fuels supplied to the market by companies operating in the grey and black zone almost all domestic production was allocated internally. It can be clearly seen that the principal objective was to increase the production capacity of those products (diesel, light fuel oil) that previously entered the market illegally. We also have to remember that in 2017 Grupa LOTOS carried out a planned monthly maintenance standstill of its refinery installations, not processing crude oil during that time. Despite the above fact, the production of diesel and two types of fuel oil grew. Petrol and JET aviation fuel production levels were similar to the last year's ones, and only in case of liquefied petroleum gas (LPG) we can talk about a significant decrease in production volumes. Production results recorded in 2017 were in line with trends in the demand on domestic market, with the maximum use of Polish refineries capacity. In the second half of 2016 the production was slightly higher than in the first half of the year, which was influenced by producing significantly more diesel and JET aviation fuel. Increasing the production of heavy fuel oil resulted from processing more crude oil in the refining units and increasing the degree of crude oil processing in the production facilities towards middle distillates. The refineries took advantage of good economic situation for fuels, observed both in the country and in Europe, maximizing the production of those fuel types that generated greater benefits on the domestic market. Products unable to be allocated in Poland, the amounts of which were much smaller than in the previous years, were exported with good profits. In Poland the demand for light fuel oil continues to shrink. Nevertheless, it has to be emphasized that fighting against the grey zone as well as weather conditions in 2017 led to more interest in the



Fot. SLOVNAFT

domestic product, which was then reflected in the increase in production. Significant amounts of domestic refinery production of petrol and diesel, aimed at the Polish market, were blended with biofuels, as the necessity to reach National Biofuels Target (NBT) forced such measures. In Poland fuel blending with the use of biofuels, as well as other additives, is treated as production. Such an approach slightly increases the production pool when compared to the production in refineries alone. The use of biofuels negatively influences the economic results of fuel producers due to the fact that biofuels are significantly more expensive than traditional fuels. In 2017 the additional costs, related to the fulfillment of the NBT were – just like in the previous year – somehow mitigated by freezing of the NBT thresholds on the levels from 2015 and a possibility of applying adequate reduction factors while settling the fulfilment of goals.

FIG. 3 COMPARISON OF LIQUID FUELS PRODUCTION IN 2016 AND 2017 [in thousand m³]

Source: POPIHN's own data

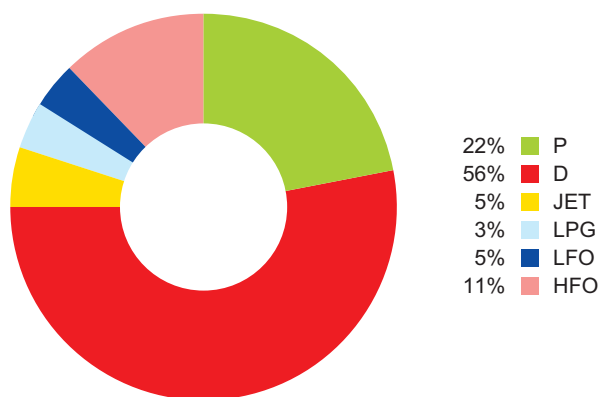
Description	2016	2017	Reference 2016=100
Petrol	5 645	5 605	99
Diesel	13 958	14 248	102
LPG	718	650	91
JET aviation fuel	1 451	1 376	95
Light fuel oil	629	749	119
Heavy fuel oil	2 714	2 760	102
OVERALL	25 115	25 388	101

25,4 m m³

Production of liquid fuels in 2017

FIG. 4 BREAKDOWN OF LIQUID FUELS PRODUCTION IN 2017 [%]

Source: POPIHN's own data



Production of diesel, which is the main product of national refineries, increased by 0.3 m. m³ (by 3%). At the same time there was an increase in the production of light fuel oil by 120,000 m³ and heavy fuel oil by 46,000 m³. A 1% decrease was recorded in petrol production (by 40,000 m³), JET aviation fuel fell by 5% and LPG decreased by 9%.

The structure of fuel production in 2017 is presented in Fig. 4.

The structure of production balance was identical to the previous year's. Diesel continued to be a dominant product in domestic refineries. Its share in overall production remained at the level of 56%. The second position belonged to petrol with the share of 22%.

As noted above, the production of liquid fuels also includes the process of mixing (blending) standard fuels with biofuels and additives. In 2017 the minimum level of biofuels introduced onto the market (National Biofuels Target), which companies that produce fuels and import them were obliged to fulfil, remained at the same level as for 2015 and amounted to 7.1% by energy value. That, in turn, resulted in the need of adding alcohol and FAME to the majority of petrol and diesel introduced onto the Polish market. Additionally, in order to meet the requirements of the act it was also necessary to sell a sufficient amount of B100 fuel because simply adding biofuels to standard fuels was not enough to fulfil the NBT. In order to facilitate the fulfilment of NBT, besides freezing it to the level of the year 2015, the interested parties were given the opportunity to apply reduction factors on the level of 0.85 of the NBT, on the condition of using biofuels originating from the EU and EFTA countries. Unfortunately, amending the 2014 Act on Biocomponents and Biofuels as late as in late winter of 2017 resulted in the unprofitability and impossibility of using biofuels (and especially the advanced ones) in higher proportion in standard fuels. Preliminary market information shows that POPIHN members achieved the imposed NBT. It is estimated that in 2017 around 330,000 m³ of ethanol and around 730,000 m³ of methyl esters were added to fuels. These amounts were higher than the ones from 2016 by 10,000 m³ for alcohol and by 30,000 m³ for diesel. Sales of B100 fuel are estimated at about 700,000 m³ (definite figures will be known until the end of March 2018), which means that sales volume of B100 in comparison to the year 2016 decreased by about 30,000 m³. This type of fuel was practically unavailable in retail trade, and in wholesale trade it was quite unpopular. Its vast majority was sent outside Poland.



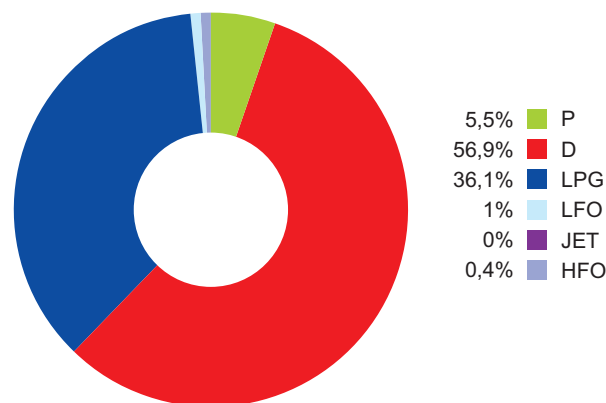
IMPORTS OF LIQUID FUELS

(SUM OF ACTUAL IMPORTS AND INTRA-COMMUNITY ACQUISITIONS) (FIG. 7 AND 8).

According to expectations, in 2017 officially registered imports of fuels increased significantly. Such a significant growth was achieved primarily through increasing the measures aimed at limiting the grey and black market, but it was also due to organic growth of domestic market. Based on the available data, officially registered imports of liquid fuels in 2017 amounted to almost 11.5 m. m³. When compared to 2016, it was about 2.2 m. m³ more, i.e. 24%. Thus 2017 was another year of increases, since in 2016, when compared to the previous year, the imports and intra-Community acquisitions grew by 34%, and in 2015 by 9%. Due to new legislative measures regulating fuel market and activities of control authorities the majority of products brought into the country were officially reported registered. Consequently, the data relating mainly to foreign purchases of diesel was adjusted. Increases were also recorded in the imports of petrol and LPG. Less fuel oils and JET aviation fuel were brought into the country. LPG had constituted the biggest share in the imports to Poland before it was left behind diesel in 2016. Total imports of petrol, diesel, LPG and light fuel oil, carried out by the so-called independent operators (companies other than POPiHN members) were higher than the imports of the biggest market players. It is worth noting, however, that POPiHN members were the ones to import more petrol and fuel for Diesel engines than independent operators. LPG and light fuel oil imports, however, were in 100% carried out by companies other than POPiHN members. Throughout 2017 foreign purchases carried out by the biggest operators on the Polish market were almost twice higher than the growth of the so-called supplementary imports. Struggling with grey and black markets influenced the fact that a considerable number of fuel consumers transferred their source of provisions to legally operating suppliers. Nonetheless, grey zone has not been completely eradicated and the criminals are still looking for the loopholes in the law. Increased imports of motor fuels is a continuation of the trend initiated in 2014 and at the same time it is evidence confirming that effective and permanent controls of imported fuel are the best solutions for regulating and organising the market.

FIG. 5 BREAKDOWN OF LIQUID FUELS IMPORTS IN 2017 [%]

Source: POPiHN's own study



THROUGHOUT 2017 FOREIGN PURCHASES CARRIED OUT BY THE BIGGEST OPERATORS ON THE POLISH MARKET WERE ALMOST TWICE HIGHER THAN THE GROWTH OF THE SO-CALLED SUPPLEMENTARY IMPORTS.

FIG. 7 SOURCES OF PETROL IMPORTS [%]

Source: Ministry of Finance and POPiHN's own data

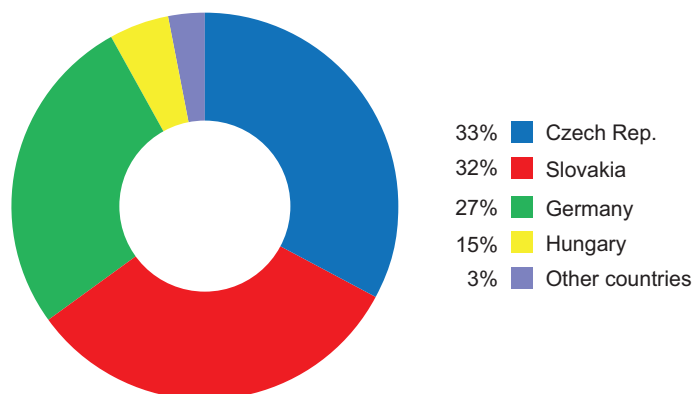


FIG. 6 COMPARISON OF IMPORTS AND ACQUISITIONS OF LIQUID FUELS IN 2016 AND 2017

Source: Ministry of Finance and POPiHN's own data

Description	2016 in thousand m ³	2017 in thousand m ³	Reference 2016=100
Petrol	472	624	132
Diesel	4 519	6 461	143
LPG	3 914	4 098	105
Light fuel oil	132	115	87
JET aviation fuel	47	4	9
Heavy fuel oil	78	49	63
Overall liquid fuels	9 162	11 351	124

11,5 m m³

Official import of liquid fuels in 2017

In 2017 the increase in the imports of diesel equalled almost 2 m. m³, petrol grew by 152,000 m³ and LPG by 184,000 m³. However, there was a 13% decline in the imports of light fuel oil, which means that in terms of volume 17,000 m³ less was imported into the country. This difference was compensated by an increase in the domestic production. Increased domestic production also resulted in a substantial decline in heavy fuel oil imports.

The increase in the officially registered imports of liquid fuels in relation to 2016 equalled 2.2 m. m³ and for 6 main fuel types amounted to 35% of supplies.

In the structure of supplies from abroad in 2017 for another year in a row the imports of diesel grew in importance (its share increased by 8 percentage points), whereas the biggest fall in shares (by 7 percentage points) was recorded for LPG.

The collected data show that in case of the market for 4 basic liquid fuels (petrol, diesel, LPG and light fuel oil) POPIHN members registered higher imports than in the previous year, and so did the independent operators in the so-called supplementary imports. POPIHN members' imports increased almost twofold, while the independent operators' imports grew by only 3%. In terms of volume, however, the independent operators were the ones to bring almost twice more fuels into the country than the big oil companies. The above results were largely influenced by LPG and light fuel oil imports carried out exclusively by independent operators. In the group of described fuels big oil companies imported around 4 m. m³, which was about 2 m. m³ fuel more than in the previous year. Independent operators increased their purchases abroad by only 0.2 m. m³, bringing into the country approximately 7.2 m. m³ of fuel from the described product group.

Sources of imports of petrol are shown in Fig. 7. The largest amounts of fuel for spark-ignition engines were imported to Poland from the Czech Republic. In 2016 the biggest volume of this type of fuel was brought in from

2,2 m m³

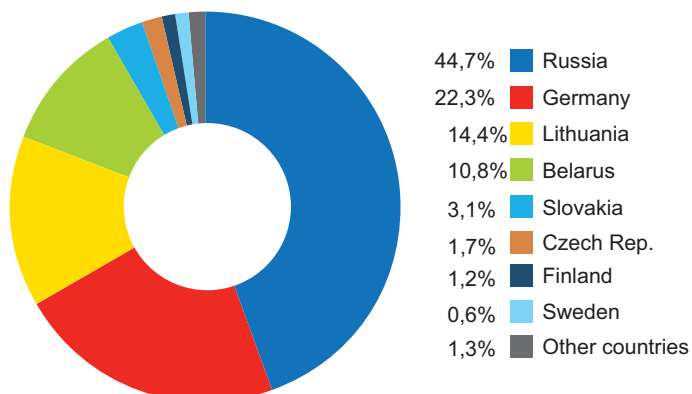
The increase in the officially registered imports of liquid fuels in relation to 2016

Germany, which in the following year ranked third on the list of sources of supply. The remaining significant source countries were Slovakia and Hungary. Imports from other countries were fragmented and constituted only 3% of supplies.

Officially registered imports of diesel showed a larger variety of source countries than in the case of petrol. Also here there was a change in the direction, from which the biggest amount of fuel was brought in. Germany had been leading until the previous year, when it became substituted by Russia. In addition, while in 2016 both these directions provided similar amounts of the product, in 2017 Russian domination grew in significance. Other important source countries for companies buying fuel for Diesel engines were also: Lithuania, Belarus, Slovakia, the Czech Republic, Finland and Sweden. Around 56% of the product was imported from beyond our eastern border, i.e. the territory of the non-EU countries. It is a volume increased by 13 percentage points when compared to 2016. Altogether, the east, including the EU countries, provided around 70% of the whole diesel imports, which was 17 percentage points more than in the previous year. This volume has been growing year by year by a few percentage points.

FIG. 8 SOURCES OF DIESEL IMPORTS [%]

Source: Ministry of Finance and POPIHN's own data



EXPORTS OF LIQUID FUELS

SUM OF ACTUAL EXPORTS AND INTRA-COMMUNITY SUPPLIES

Exports of liquid fuels (Fig. 9 and 10) in 2017 amounted to 3.3 m. m³, which, compared to 2016, was 34% less. Thus a downward trend in foreign deliveries was maintained, after it started in 2016, due to limiting grey and black economy on the domestic market. It was possible to sell in Poland more fuels, previously located abroad. The decrease in foreign deliveries equalled 1.7 m. m³, whereas in 2016 it amounted to 1.2 m. m³. More and more market operators are back to supplying themselves from legally operating businesses, thus more fuel produced in Poland was allocated in the country. Such actions also influenced the structure of products sent abroad. Once again heavy fuel oil was the dominant product, whereas, when just two years ago its share was comparable to the share of motor fuels.

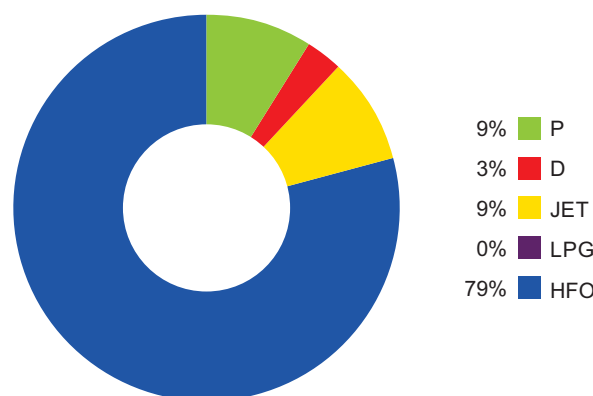
Until the year 2015 the official market for motor fuels in Poland witnessed a growth, though allocating products from domestic refineries was hindered by the black and grey markets. The situation reversed in the second half of 2016 after introducing new legal solutions within the 'fuel package'. The drop in the volume of foreign deliveries of fuels was amplified by introducing energy and transport packages. The largest decreases in percentage and volume of exports were recorded for diesel and petrol. Exports of JET aviation fuel declined as well, and exports of liquefied petroleum gas LPG, carried out by domestic producers, decreased to 0%. Heavy fuel oil exports were the only ones that remained on the level from the previous year. Exports of diesel and petrol decreased by 89% and 56%, respectively. The above means that around 930,000 m³ less diesel and around 380,000 m³ less petrol was allocated abroad. Exports of JET aviation fuel fell by 350,000 m³. Allocating crude oil products in the country was more profitable for producers, at the same time generating measurable benefits for the state revenue. Heavy fuel oil remained the largest export product in the sector. Its share in exports grew from 51% in 2016 to 79% in 2017.

The export deliveries of JET aviation fuel shown in Fig. 9 are the ones carried out directly by domestic producers to recipients outside Poland. Nevertheless, a significant amount of this fuel production goes to domestic intermediaries, which provide airport deliveries to domestic and international carriers. The volume of these deliveries in

2017 amounted to 1,068.000 m³, which was almost 200,000 m³ more than in the previous year.

In 2017 the so-called re-export of liquefied petroleum gas LPG was maintained, but its level decreased by about 13,000 m³ and amounted to slightly over 402,000 m³. We have been facing this phenomenon for a few years now and we may assume that it will be continued in the coming years. One can also assume that, to a certain extent, the informal market takes advantage of this activity. It is to be hoped that the authorities, currently equipped with new control mechanisms, will eradicate this phenomenon. The transaction consists in providing foreign recipients with LPG, which was previously imported or purchased within intra-Community acquisitions to Poland. In 2014 this volume equalled about 280,000 m³. In 2015 it was slightly more, i.e. 320,000 m³, while in 2016 it exceeded 415,000 m³. In 2017 re-export of LPG slightly fell to the level of approximately 403,000 m³.

FIG. 10 BREAKDOWN OF LIQUID FUELS EXPORTS IN 2017 [%]
Source: POPIHN's own data



The structure of total exports of liquid fuels from Poland showed an increase in heavy fuel oil by 28 percentage points, mainly at the expense of diesel and petrol.

The main destinations of exports and intra-Community supplies for petrol are currently the Netherlands (29%), Sweden (21%) and Great Britain (18%). Diesel was delivered mainly to the Czech Republic (65%) and Ukraine (26%), yet the volume of the deliveries was not that significant. The largest volumes of heavy fuel oil were supplied to the Netherlands, Sweden and Denmark. JET was mostly delivered in similar proportions to Sweden and the Czech Republic.

FIG. 9 STRUCTURE OF EXPORTS AND SUPPLIES IN 2016 AND 2017 [in thousand m³]

Source: POPIHN's own data * direct exports without re-exporting

Description	2016	2017	Reference 2016=100
Petrol	683	300	44
Diesel	1 037	109	11
JET aviation fuel	651	304	47
LPG*)	47	0	-
Heavy fuel oil	2 575	2 585	100
OVERALL	4 993	3 298	66

DOMESTIC CONSUMPTION OF LIQUID FUELS IN 2017

Table 11 presents a preliminary comparison of the officially registered domestic consumption of liquid fuels in 2017 when compared to the official domestic consumption of liquid fuels in 2016. Final data, taking into account final calculations elaborated by the Customs Service of the Ministry of Finance on imports and intra-Community supplies, will be available in the second half of 2018. Therefore the results presented for 2017 should be treated as estimates, yet very close to final data.

The effective combating of grey and black liquid fuel markets initiated in 2016 due to the introduction of the fuel package followed by the energy package. Legal actions were complemented by introducing in 2017 implementing acts to the energy package, as well as launching the transport package SENT. Tax authorities of the Ministry of Finance intensified their activities with the support of other control services operating in the fuel sector. The above activities resulted in a significant increase in the official liquid fuel market in Poland. It is difficult to evaluate to what degree it was a real overall growth of the market and to what degree this was just the result of the legalisation of transactions until then invisible to the official statistics. In a way this organic growth could be estimated on the basis of the results of fuel consumption from the last quarter of the year. Such estimates would amount to a few per cent when

compared to the previous year. Main elements accounting for an increased demand for fuels, apart from limiting grey and black markets, were positive economic results witnessed by the Polish economy, favourable fuel prices (from the point of view of drivers), especially in the second and third quarters of the year, an increase in national wealth, and a growth in the number of vehicles driven on Polish roads. An increased official demand was recorded for all liquid fuels, including JET aviation fuel. However, less fuel oils were bought in comparison with the previous year. It was expected that combating irregularities on the diesel market would lead to the biggest increase in the official demand for this type of fuel, and it so happened. In the segment of car fuels the growths in the official consumption of diesel in 2017 were the biggest. They were exceeded only by JET aviation fuel, the domestic market of which functioned very well. Good results (with prospects for further growth in the coming years) were also recorded in petrol market, which, for the third consecutive year, witnessed an intensive growth. For all types of motor fuels (petrol, diesel and autogas) the market grew by 11% when compared to 2016, whereas the overall liquid fuel market also grew by 11%. The consumption of light and heavy fuel oil was below the level from the previous year, the main reason for which was quite mild weather and substituting those energy

FIG. 11 ESTIMATED DOMESTIC LIQUID FUEL CONSUMPTION IN 2017 IN COMPARISON TO THAT OF 2016.

Source: Ministry of Finance and POPIHN's own data

Description		2016		2017		Reference 2016=100
		in thousand m ³	share in consumption %	in thousand m ³	share in consumption %	
Petrol	Consumption	5 449		5 765		106
	of which total imports	472	9	624	11	132
Diesel	Consumption	17 229		19 751		115
	of which total imports	4 519	26	6 461	33	143
LPG	Consumption	4 640		4 808		104
	of which total imports	3 914	84	4 098	85	105
Total for 3 fuel types	Consumption	27 318		30 324		111
	of which total imports	8 905	33	11 183	37	126
JET aviation fuel	Consumption	877		1 071		122
	of which total imports	47	5	4	0,4	9
Light fuel oil	Consumption	881		867		98
	of which total imports	132	15	115	13	87
Heavy fuel oil	Consumption	189		184		97
	of which total imports	78	41	49	27	63
OVERALL	Consumption	29 265		32 446		111
	of which total imports	9 162	31	11 351	35	124

carriers by gas fuels and biomass. Good petrol sales volumes resulted from, apart from limiting the scope of the grey market (which, even though it had a narrower scope than the one for diesel, was also present for this type of fuel), an increased interest in vehicles with spark engines, which reflected the trends that had already been observed in Western Europe, consisting in restricting the access of vehicles with compression-ignition engines. In 2017 sales volumes were also improved by the LPG market. In case of this fuel type the demand grew by about 4% when compared to the year before. Such increase was calculated on the basis of the assumption that the level of re-export (export of gas previously purchased outside Poland) last year was very similar to the one observed in 2016. To sum up, we can conclude that in 2017, similarly to the year before, on the Polish liquid fuels market there was an increase in official demand for all most important products, among which diesel witnessed the biggest increase in terms of percentage and volume. Domestic demand for liquid fuels was fully satisfied and there were no recorded instances of market turbulences, yet it has to be admitted that there were occasional queues at fuel depots. They were, nonetheless, caused by changing the locations of legal supplies and not by supply problems on the market. Adequate quantity of fuel necessary to supplement the domestic production was imported.

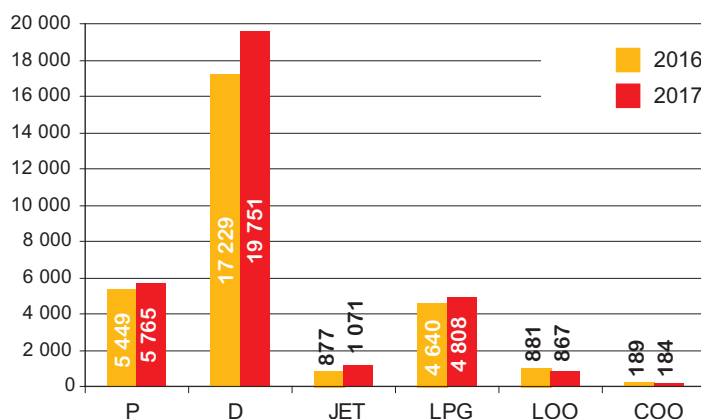
The official consumption of fuels for diesel engines grew by 15% in relation to 2016. The share of official imports in the diesel market supplies reached the level of 33%, i.e. grew by 7 percentage points in relation to the previous year's. The supplementary imports were much lower than the growth of market supplies carried out by POPiHN members (+16%) and amounted to only 2%. The imports carried out by big companies recorded an over twofold growth compared to the 12 months of 2016 and in the end amounted to over 0.5 m. m³ more than the supplementary imports.

2017 was the third consecutive year in which the demand for petrol recorded increases. The interest in purchasing this fuel type grew by 6% in relation to the previous year. In case of petrol the level of retail prices and the size of vehicle fleet are main factors that determine the volume of purchases. In 2017 petrol-fuelled fleet grew in size, whereas petrol prices were on average slightly higher throughout the year than in the previous year. As a rule the price relationship between EU95 petrol and autogas influence the proportions of purchase volumes carried out by drivers who own cars with dual supply system. Last year the demand for autogas grew slower than it did in case of petrol. Polish drivers used 5.8 m. m³ of petrol, out of which almost 620,000 m³ came from imports. Imports supplied 11% of the total petrol market share, i.e. 2 percentage points more than in 2016.

The consumption of LPG (taking into account the re-export volumes almost identical to the previous year's) in the described year was about 4% higher than in the previous year. The price relation: autogas – EU95 petrol for most part of the year remained at the level which encouraged drivers to purchase autogas (it is assumed that

FIG. 12 DOMESTIC CONSUMPTION OF LIQUID FUELS IN 2016 AND 2017 [in thousand m³]

Source: POPiHN's own study



Fot. CIRCLEK

when autogas price is lower than 60% of EU95 petrol price, then pricewise it is better to use autogas in cars with dual supply system); despite the above fact, petrol market recorded bigger growths than in the case of autogas. Estimated results for the whole year show an increase in LPG consumption by approximately 170,000 m³. The volume of re-exported LPG amounted to 391,000 m³, i.e. about 25,000 m³ less than in 2016. Similarly to the previous year, about 85% of the domestic market was still supplied with fuel from abroad.

The demand for light fuel oil in 2017 was identical to the previous year's. The domestic consumption of this fuel type equalled approximately 870,000 m³ and at the same time 2017 was a fifth consecutive year in which the domestic demand for this product was estimated at a level below 1 m. m³. Most of the demand for this fuel type (87%) was met by supplies from domestic production. In 2017 the official supplementary imports decreased by 17,000 m³ and amounted to 115,000 m³.

It was another consecutive year throughout which the domestic demand for JET aviation fuel continued to grow. In 2017 its consumption reached almost 1 m. m³, growing

by almost 200,000 m³ when compared to 2016. The market growth was satisfied with the use of domestic production and a twofold decrease in imports. A marginal amount of this fuel type was imported.

In comparison to 2016 domestic consumption of heavy fuel oil declined. This time the demand decreased by 3%, which confirmed the domestic demand threshold to be less than 200,000 m³. This type of fuel is produced in Polish refineries in the amounts significantly exceeding the domestic demand and therefore for years the surplus has been sent abroad in large quantities.

Total official domestic consumption of the 6 types of liquid fuels amounted to almost 32.5 m. m³ and was higher by 3.2 m. m³ than the one in 2016. It should be recalled that in a year-over-year comparison of 2016 and 2015 this consumption grew by 3.1 m. m³. The official increase of the market amounted to 11%, within which the imports grew by 24%, and its share in the overall market was estimated at 35%. The above means that official imports of fuels supplied to the Polish market recorded a 2.2 m. m³ increase over the previous year. Foreign fuel supplies were 4 percentage points higher than in 2016, and in terms of volume the overall imports of liquid fuels amounted to 11.4 m. m³.

The structure of fuel consumption in Poland has been presented in Fig. 13.

In relation to 2016 the change in the breakdown of consumption of liquid fuels consisted in a slight increase

FIG. 13 BREAKDOWN OF LIQUID FUELS CONSUMPTION IN 2017 [%]

Source: POPIHN's own study

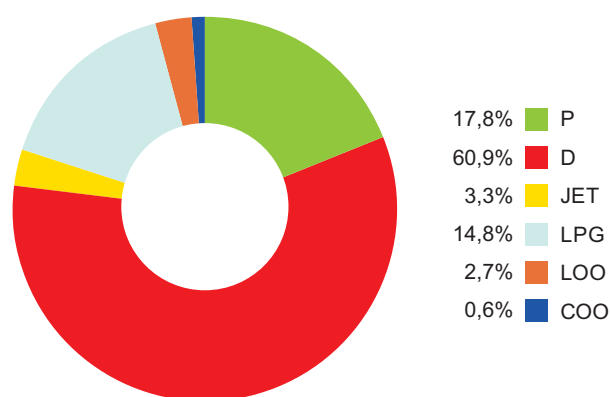


FIG. 14 BALANCE OF INTERNATIONAL TRADE IN LIQUID FUELS IN 2017 [in thousand m³]

Source: Ministry of Finance and POPIHN's own data

*) – trade of domestic producers

1	Imports + Purchases	Exports + Supplies	Difference (2-3)
	2	3	4
Petrol	624	300	324
Diesel	6 461	109	6 352
LPG	4 098	0 *)	4 098
JET aviation fuel	4	304 *)	(-300)
Light fuel oil	115	0	115
Heavy fuel oil	49	2 585	(-2 536)
OVERALL	11 351	3 298	8 053

(by 2 percentage points) of the importance of diesel alongside a 0.3 percentage point increase in the market share of JET aviation fuel. The remaining fuel types decreased their shares, with the biggest decline recorded by LPG (1 percentage point). The consumption of diesel continues to prevail and its share exceeds 60% of consumed fuels.

The main source for supplying the domestic market with liquid fuel supplies are the Polish refineries, for which it is more profitable to sell the product in the country than to export it. After eliminating from the market significant quantities of goods traded within grey and black economy, the products, which were previously exported in substantial amounts, entered the domestic market. Surpluses of products unable to be allocated in the country were the only ones shipped abroad. The balance of international trade in liquid fuels for Poland is presented in Fig. 14.

Also in this comparison we can clearly see the effects of implementing new legal solutions and efficient actions being undertaken by control authorities. In 2017 the dominance of fuel imports, understood in broad terms, over exports was almost three-and-a-half times, whereas in the previous year imports exceeded exports twice. The situation on the market started resembling the one observed before 2013, when fuel imports significantly exceeded exports. Current results even exceed the ones. Reducing fuel exports by 33% in relation to the previous year results from organizing the domestic market and thus improving the ability to allocate domestic products within the country. Maintaining the trend of stronger volume growths in fuel imports than exports in 2017 was mainly influenced by an increase in the official imports of diesel and petrol. Foreign deliveries of heavy fuel oil dominated export volumes of fuel. Legally operating companies in Poland managed to regain another part of domestic diesel fuel market, until recently occupied by the grey and black economies. If in the coming years we manage to keep under control illicit trading in fuels and the Polish economy continues to grow, current proportions between exports and imports should be maintained, if not increase. This would be profitable both for Polish refineries and legally operating businesses trading in fuels, and at the same time the state fiscal authority would benefit from increased revenues from fuels sold. International trading balance for the Polish fuel sector will continue to be shaped mainly by diesel and LPG imports on one hand and heavy fuel oil exports on the other.

TOTAL OFFICIAL DOMESTIC CONSUMPTION OF THE 6 TYPES OF LIQUID FUELS AMOUNTED TO ALMOST 32.5 M. M³ AND WAS HIGHER BY 3.2 M. M³ THAN THE ONE IN 2016.

RETAIL MARKET

As estimated by POPiHN, Polish network of filling stations, which consists of publicly available sites selling at least petrol and diesel, at the end of 2017 comprised around 6,640 outlets. This number of filling stations is smaller than at the end of 2016 by approximately 160 stations. The decrease in the number of stations can be explained by the verification of fuel infrastructure carried out in 2017, which consisted in renewing the concessions while implementing new provisions of the energy package from 2016. This tool aimed at combating the grey and black economy in the filling station market brought the expected results. Nevertheless, the market is still waiting for an official database comprising reliable information on current fuel infrastructure in Poland, which is currently being elaborated by the Energy Regulatory Office as of the date of submitting this report. Therefore the number of filling stations given in this report continues to be approximate. The inaccuracies, however, refer only to the segment of independent stations, which is undergoing constant transformations.

Main market operators, as well as, increasingly, independent networks of filling stations carried out new investments and performed acquisitions mainly from the segment of non-attached stations. Filling stations are increasingly moving towards the model of a convenience store, i.e. a shopping and service centre where we could fill up, but also do basic shopping, rest during our journey, have something to eat or carry out basic car maintenance services.

There were no significant shifts in the market shares of individual operators' groups when compared to 2016. The share of domestic companies in the overall number of stations equals about 34%, the international companies' share is 22%, whereas the remaining stations' share is almost 44%, out of which hypermarkets constitute approximately 3% of the market, while stations related to owners or organizers of independent networks constitute around 14% of the total filling stations market in Poland. Such stations functioning under one brand are becoming more and more visible on the market, not only within the region, but often on the scale of the whole country. Private operators, so far non-attached, in order to find a more efficient form of activity, were trying to find their place by switching to corporate logos of large companies or the logo



Fot. SHELL

of other franchisor, frequently a private one, independent of the biggest oil companies operating on the Polish market. A large part of the operators who own better locations continue to run their businesses by themselves.

In 2017 PKN ORLEN was the market leader in filling stations in Poland. The BP network continued to be in the number two position, whereas, for the third year in a row, Grupa LOTOS occupied the third place. National oil companies continued to operate under four brands: ORLEN and BLISKA in case of PKN and LOTOS and LOTOS OPTIMA in case of Grupa LOTOS. In light of current market conditions, when customers demand more and more from filling stations, maintaining economic brands is becoming less and less profitable. Both national oil companies react to this trend by not developing, and even withdrawing their low price brands. While the economic network of Grupa LOTOS practically remained on an unchanged level in 2017, the number of filling stations in the network of BLISKA shrank significantly. The green logo was most frequently replaced with red and grey colours of ORLEN. It is estimated that throughout 2017 domestic companies had a 34% share in the overall filling stations market in Poland. The share of international oil companies operating in Poland amounted to about 22%. This segment systematically continues to increase the number of outlets operating under the logos of

FIG. 15 NUMBER OF STATIONS OF RETAIL OPERATORS IN 2015-2017

Source: POPiHN's own data

	2015 31.12.2015	2016 31.12.2016	2017 31.12.2017
Filling stations networks			
DOMESTIC COMPANIES	2,225	2,253	2,269
FOREIGN COMPANIES	1,437	1,467	1,487
INDEPENDENT CHAINS (operating under a common brand)	818	900	932
OTHER INDEPENDENT OPERATORS (approx.)	1,932	2,000	1,768
SHOPS	179	183	187
TOTAL (approx.)	6,591	6,803	6,643

POLISH NETWORK OF FILLING STATIONS, WHICH CONSISTS OF PUBLICLY AVAILABLE SITES SELLING AT LEAST PETROL AND DIESEL, AT THE END OF 2017 COMPRISED AROUND 6,640 OUTLETS.

companies that are recognized worldwide. TOTAL company, on the Polish market since 2015, increased its network by 7 stations and at the end of the year the company owned 23 filling stations. In the segment on independent stations attention should be given to high dynamics of the development of MOYA stations and launching 15 outlets in a new network under the logo of AVIA (UNIMOT). Franchising agreement continued to be the main tool in attracting new stations to the network last year, yet there were also outlets built from the scratch. The latter ones mainly appear within the networks of the oil companies, however, a number of sites owned by supermarkets and the independent operators have been built as well.

The value of retail market for fuel sales in Poland in 2017 was estimated at about 95 bn PLN, whereas its volume at almost 26 bn litres of fuels (petrol, diesel and autogas). State budget revenue from taxation (VAT, excise duty, fuel surcharge) from retail sales of fuels amounted to around 50 bn PLN.

In 2017 there was an increase in the number of stations operating under domestic companies' brands. New outlets started operating both within PKN ORLEN and Grupa LOTOS. Both companies built new stations, acquired some

under franchising agreements, closed the unprofitable ones and modernised others, adjusting them to new standards of service. Circle K rebranded the logo a big part of its filling stations, which until the end of 2016 had been operating under the STATOIL logo. In the end of the year BP expanded its network by a significant number of outlets, thus consolidating its second position on the market.

The network of filling stations operating along Polish motorways grew, yet there are still sections of express roads with no such outlets. In 2017 there appeared 5 new Motorway Service Areas (MSAs, PL: MOP) with filling stations, 2 of which belong to BP, 1 to PKN ORLEN and the remaining 2 are owned by Circle K, which by means of these outlets started operating in the motorway segment. Several MSAs are currently under construction, and the GDDKiA launched a few dozens of calls for tender for new outlets alongside motorways and express ways. New filling stations in those places are changing the geography of purchasing fuels by drivers. Today it is possible to use motorways and express ways while travelling across Poland without having to drive away off the motorway in order to fill up. Filling stations, which until recently were natural facilities along these motorways, are losing customers, even though the prices offered at these stations are usually lower.

In 2017 PKN ORLEN increased the size of its filling stations network by 10 outlets, ending the year with 1,776 outlets. This increase was achieved through restructuring the network, as well as thanks to constructing new outlets and acquisitions consisting of franchising agreements. The company is systematically reducing number of stations operating under the BLISKA logo: in 2017 it was reduced by 32, amounting to 76 stations owned at the end of the year. The change resulted from closing down some outlets and rebranding the other part to the ORLEN corporate logo. The company, similarly to the previous year, opened 1 new station located on a motorway and at the end of the year it managed 37 such outlets, thus remaining the domestic leader also in this category of filling stations.

Grupa LOTOS closed the year with 493 filling stations, i.e. 6 outlets more than in the previous year. 204 stations operated under the logo of LOTOS OPTIMA, i.e. 1 less, compared to the previous year. The company did not expand the number of stations along motorways and continues to manage 20 MSAs. The policy of expanding the networks based on investing in economic class stations was modified and in the future the company is to focus on opening stations operating under the main logo of LOTOS with the widest possible range of services aimed at drivers and travellers. LOTOS is currently number three on the filling stations market and number two in terms of the number of owned stations located on motorways.

International companies operating on the Polish market continued to develop their networks. The vice-leader in the market, the company BP, owned 537 filling stations at the end of 2017, increasing the number of owned stations by 14. The company opened two new stations located on motorways and currently manages 19 outlets of this type. Shell Polska closed the year with 1 station less, compared to the end of 2016. The company owns 423 stations, 14 out of which operate in the self-service format. Circle K

FIG. 16 FILLING STATIONS IN POLAND AT THE END OF 2017

Source: POPIHN's own data

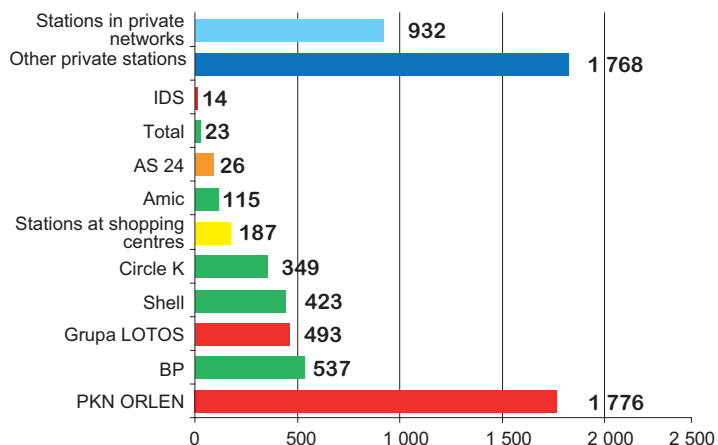
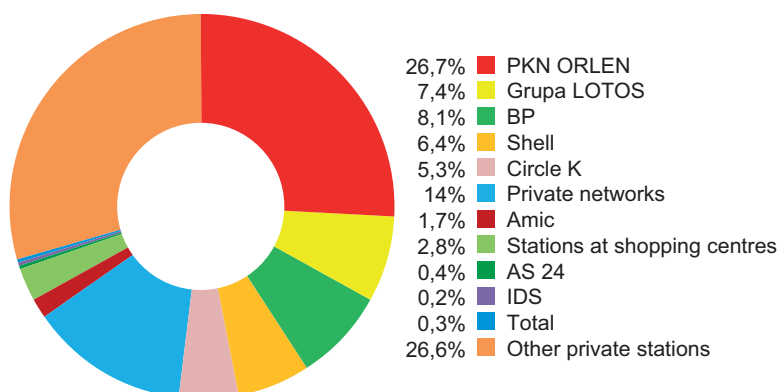


FIG. 17 BREAKDOWN OF FILLING STATIONS MARKET AT THE END OF 2017 [%]

Source: POPIHN's own study



changed the visual aspect of a significant number of its stations. The logo of Statoil is slowly disappearing from the Polish market. Economic stations owned by this company, until recently marked with 1-2-3 logo, are gradually rebranding to Circle K Express. At the end of 2017 the company owned 349 stations, i.e. 1 less than in the previous year Amic Polska took over the network of Lukoil's stations, but it did not increase the number of filling stations nor did it change the brand under which they have been functioning. At the end of December there were 115 such outlets. In 2015, after a long break, TOTAL resumed its activities on the Polish market, and by the end of 2017 its logo was already present on 23 stations functioning on the basis of franchising mechanism.

The segment classified by POPiHN as independent filling stations on the Polish market is currently shrinking. A number of companies within that segment were closed down during the verification of concessions, some rebranded to oil companies' logos, while some joined the independent operators' networks. Adopting the POPiHN's nomenclature (independent networks are the ones where under one logo there are at least 10 outlets), this group of operators expanded the number of their outlets to 932. The most active private network in 2017 was MOYA brand, which grew by 29 stations. It increased the number of its filling stations by 29. Such operators as Huzar or the Pieprzyk group were also active. UNIMOT took off with a new brand, activating 15 filling stations under the logo of AVIA. It is a well known brand of independent stations in Europe. It moved to Poland, aspiring to gain a big number of still non-associated outlets. The market estimates (as we can only base on those) point out that the number of stations managed by this segment of independent market grew by about 30 outlets. Together with the development of independent brands it is becoming more and more attractive for the remaining independent operators to participate in such undertakings, which makes this segment of the market continue to grow. It is an alternative for cooperation with large fuel companies, whose requirements as to maintain service standards and the standardisation or store displays are, however, slightly more stringent. If we look at fuel stations market as a whole, this group is in the number two position in terms of the number of organised outlets which carry out retail fuel sales and is becoming more and more real competition for the filling stations owned by oil companies.

Within the group of independent companies in 2017 there was an increase in the number of self-service filling stations, operating without staff and offering just fuels. In the reality of the market, on the one hand with very limited grey economy, and on the other hand in the light of increased drivers' demands and no sales on Sundays, will these stations continue to exist? Time will tell, but the prospects for unmanned filling stations are not very favourable.

The number of filling stations within shopping centres in 2017 increased by only 4 outlets, just like in 2016, and amounted to 187. Due to high turnover volumes the stations located beside supermarkets play a major role within the overall retail fuel market. Their share in retail sales of fuel is much bigger than their share in fuel stations market. High sales volumes are performed with a minimum margin, which makes these stations attractive pricewise to the buyers.

Nonetheless, despite earlier announcements, the number of new outlets is currently not increasing rapidly. It will be interesting to observe how this segment will react to non-trading Sundays to be introduced in 2018.

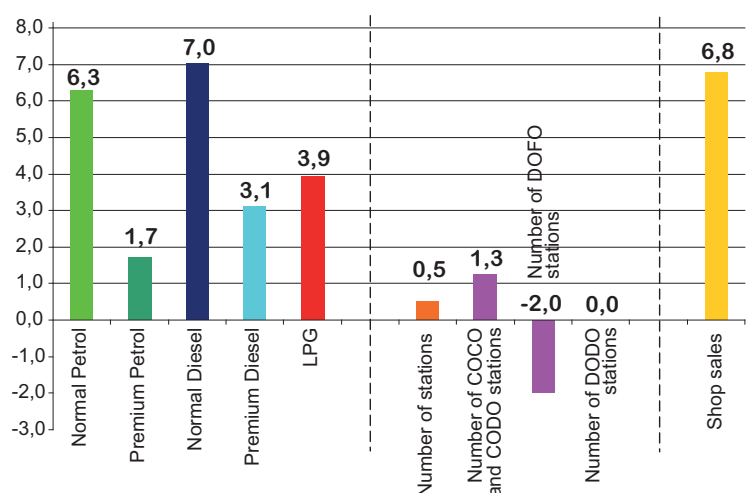
Unfortunately, there is still no reliable domestic database of filling stations. The Energy Regulatory Office is elaborating such database, yet it is a complex issue, what was also experienced by POPiHN's experts while determining retail market for fuels. It is still difficult to clearly define how many independent stations actually operate in Poland. Furthermore, this segment of the market is undergoing current transformations. Information available to POPiHN shows that at the end of 2017 there were about 1,800 stations operating as completely independent or grouped into small local networks comprising not more than 10 sites. The stations that were taken into consideration were the publicly available ones offering at least 2 fuel types (P and D). Unfortunately, some of these sites, as well as the ones on which there is no information relating to their functioning, remained beyond any control by relevant authorities. Some outlets were, and may perhaps continue to be, taken advantage of by the entities operating on the informal and illegal liquid fuel markets.

The regulations implemented in 2016 under the energy package constituted a framework which enables creating an official, reliable fuel platform, within which it would finally be clear what type of infrastructure is used to provide the Poles with fuels, how many filling stations there are and how they operate. Unfortunately, in 2017 the above was not achieved.

RETAIL MARKET OF LIQUID FUELS FROM THE POINT OF VIEW OF POPiHN MEMBERS

This section of the report, as in previous years, is devoted to the description of phenomena and trends taking place on domestic market for retail sale of liquid fuels. The market analysis is carried out on the basis of reliable data obtained from POPiHN members, that at the end of 2017 ran over 3,750 filling stations in Poland. Due to the fact that a reliable official database on the fuel infrastructure in Poland is still

FIG. 18 CHANGES IN RETAIL SALES OF FUELS, IN NUMBER OF FILLING STATIONS AND IN SALES AT STATION SHOPS IN 2017 COMPARED TO 2016 [%]
Source: POPiHN's own data



being prepared, estimating the real number of fuel selling outlets, based on the given data, continues to be difficult. The Energy Regulatory Office is working on it and it is hoped that it will become operational at the beginning of 2018. Current POPiHN's estimates relating to the so-called independent filling stations are elaborated on the basis of the availability of general data coming from broadly defined public media. In its analyses POPiHN uses the information on the independent filling stations that are publicly available and sell at least 2 types of fuels (P, D). On this assumption, the Organisation estimates that in Poland there are around 6,640 filling stations.

The trends analysed below, taking place on the retail fuel market, are thus defined on the basis of reliable data gathered from POPiHN members. The analysis of the activity described below is thus performed on a sample comprising almost 57% of the market. The remaining part of the market belongs to the independent operators, but, unfortunately, it is practically impossible to obtain any information on the market data of these operators. The only presented data referring to the independent sector can be elaborated on the basis of the estimates based on the difference between the overall retail fuel market data and POPiHN members' ones. In 2017 the stations operating under the logo of POPiHN members performed around 70% of overall retail sales of fuels and around 50% of diesel. Such shares allow to present the trends and changes occurring on the market for retail sale of fuels, non-fuel retail operations carried out at the station shops, as well as other services such as fast food outlets or basic services related to vehicle maintenance. The standards and requirements set and implemented at the stations of the biggest market operators (POPiHN members) serve as a model to be followed by the remaining companies selling fuels to drivers.

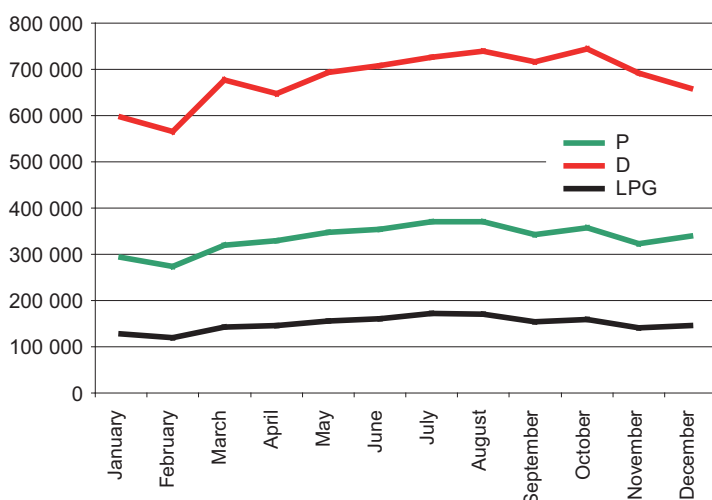
The main changes in the retail sales market for fuels in POPiHN members' station networks and their operations are shown in Fig. 18. Similarly to the previous year, not at such an impressive pace, though, the majority of indicators in the analysed categories were positive. The only negative

result is a change in the number of stations operating under franchising formula, which followed the restructuring of oil companies' networks; it was also due the fact that independent operators' groups intensively implemented this tool to gain new stations to the network. Thanks to such activities these companies significantly increased their networks by adding outlets operating within franchising mechanism. There was no development in the segment of stations operating under patron's brand name under the formula of DODO. This form of cooperation has been losing importance year by year and is being replaced by the DOFO formula. In the segment of the biggest market operators there was a substantial increase in the number of filling stations owned by fuel companies, operating under the COCO or CODO formula. The consolidation of the filling stations market was increasing and had the form of taking over independent stations by the biggest market operators, including the biggest independent networks. There was a growth in standard fuels sales; the sales of premium fuels grew as well, yet less rapidly when compared to standard fuels and also to premium fuel sales recorded in the previous year. The price element and the element of the base, to which the growth dynamics of premium fuels refers to, show that the number of customers in this category is growing, but at a slower pace than the customers purchasing standard fuels. In 2017 stores located at filling stations recorded an increase in the non-fuel sales. The above was influenced by expanding and enriching the product range, as well as by developing fast food outlets operations. The number of shops at filling stations increased, there were numerous promotional offers, and besides the offer of the filling stations was also enriched by simple maintenance services such as vehicle washing or cleaning car interior. Filling stations are becoming places which offer more complex services aimed at drivers, travellers and local residents. This is because they also offer internet access, enable money transactions (ATM, mobile payment, cash withdrawal at tillpoints, insurances), the possibility of purchasing basic medicines. The times when filling stations were used just to fill up are a thing of the past. At the filling stations it will soon be possible to refuel compressed natural gas (CNG) or charge electric cars.

Premium fuels are sold almost exclusively by the stations owned by oil companies. There are, however, some independent networks offering premium fuels in their own formula and under their own name. 2017 was another year in which sales of this type of fuel grew, though the prices were not necessarily favourable. The sales of premium fuels usually heavily depend on their prices, which have traditionally been more expensive than the regular ones by 0.25 – 0.35 PLN. Their share in the whole petrol market operated by POPiHN members remains on the level of 11%. The market share for premium diesel amounted to 15% in the overall retail market for this type of fuel and it was 1 percentage point less than in the previous year. In the overall retail petrol market in Poland the share of premium type amounted to around 5%. The market share for premium diesel was estimated similarly in the overall market for this type of fuel. Such volumes prove a decrease of premium types share in the overall fuel market,

FIG. 19 SALES OF MOTOR FUELS AT POPiHN MEMBERS' STATIONS IN 2017 [m³]

Source: POPiHN's own data



which is the result of an increase in the official sales of standard fuels after reducing the activity on the informal fuel market. Drivers appreciate exploitation aspects, which relate to purchasing better quality fuels. Therefore, whenever the prices allow them to do so, they buy them in bigger amounts. In case of high compression engine fuel, wintertime is significant as this is when premium fuel share increases.

Retail sales of regular EU95 petrol were higher and it was a continuation of the previous year's trend, but probably also a herald of further growth in the coming years. Compared to the previous year, more regular diesel B7 was sold at filling stations owned by oil companies, but also at the remaining ones. Altogether filling stations owned by POPiHN members recorded a 6% increase in petrol sales and a 7% increase in diesel. The above results from the increase of Poles' incomes, thanks to which fuel prices were relatively favourable. A stronger interest in petrol was influenced by an increase in the number of vehicles on Polish roads, an increased level of interest in purchasing cars with petrol engines rather than diesel engines, as well as a slowdown in dieselisation of passenger car fleets. At the same time there was a stabilisation in the number of cars with alternative autogas instalation. Bigger sales volumes of diesel can be accounted for by eliminating from the market the sellers of this fuel type operating within the informal and illegal markets.

In 2017 POPiHN members expanded their networks mostly by building new own stations, later operating under the formula of COCO or CODO. The franchising agreement formula was also used to gain new independent stations in good locations. This method of network expansion was also used by the biggest networks managed by independent operators.

During the year in question there was an increase in the number of shops at filling stations, as well as in their sales volumes. The increase in the value of sales amounted to almost 7%. The reasons for this phenomenon stem from expanding the offer of many shops to new range of products, small refreshment points and additional services. The Poles also travelled more, which was reflected in the total sales in the shops.

Fig. 19 presents monthly retail sales at POPiHN members' filling stations. We can observe a clear seasonal nature of sales, which tends to repeat in consecutive years. Similar graphs can be elaborated for independent stations, but in case of such stations the falls in sales are usually more marked in periods of weaker sales carried out by oil companies, whereas the growth periods are smaller in periods when oil companies sell more fuels. In 2017 an increase in the percentage of official sales, particularly in case of diesel, at independent stations was probably even higher, as that is where, more than at oil companies' stations, the elimination of the informal market activities took place and thus fuel purchases were redirected to legally operating wholesale traders.

POPiHN members' filling stations operating under the COCO+CODO formula recorded an increase in petrol and autogas sales, compared to the stations operating under the DOFO+DODO formula. In case of diesel the stations from the DOFO segment recorded higher growths of sales

FIG. 20 CHANGES IN RETAIL SALES AT FILLING STATIONS IN 2017 [MONTH/MONTH AS %]

Source: POPiHN's own data

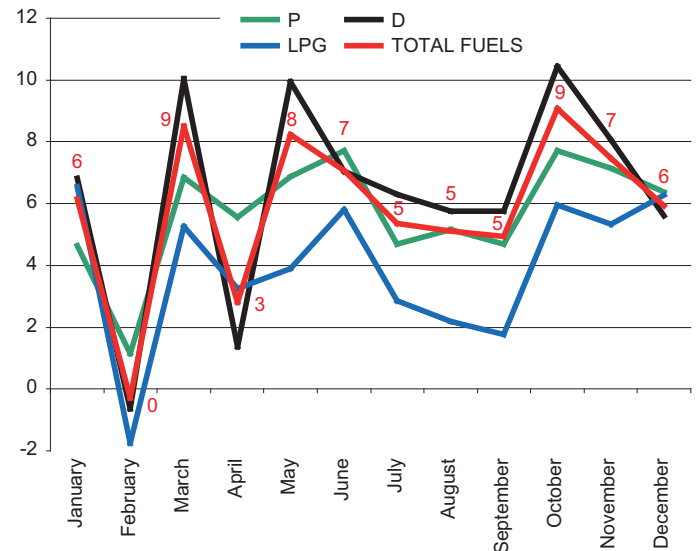
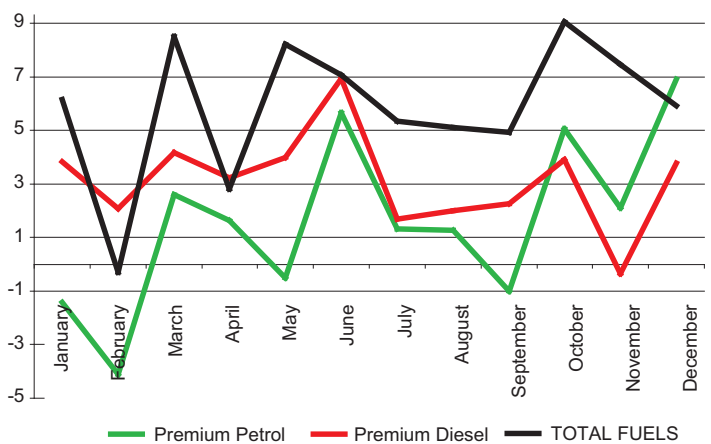


FIG. 21 CHANGES IN PREMIUM FUEL SALES AT FILLING STATIONS IN 2017 [MONTH/MONTH AS %]

Source: POPiHN's own data



volumes than the COCO+CODO and DODO type stations. Autogas sold well at the stations in the COCO+CODO formula, yet at the remaining types of stations less of it was sold than in the previous year. Overall increase in petrol sales equalled almost 6.5%, in diesel 6.2%, whereas in autogas 3.9%. Petrol and autogas sales are closely correlated with fuel prices, and in case of diesel mainly with economic conditions, basically with economic growth. In 2017 the economy witnessed an about 4.6% of growth, which must have been reflected by the improved sales volumes at the dispensers. What is more, the grey and black market, which in 2016 effectively 'poached' a part of customers from legally operating stations, were significantly reduced. That is why in previous years it was the most difficult for the operators of stations under the DODO formula; they recorded weak sales volumes, as, due to their locations, they most often had to compete against cheap, illegal fuel. In 2017 also the operators of such

stations recorded positive results in petrol and diesel sales. Unfortunately, it was not possible in case of autogas.

In 2017 margin levels obtained from fuel sales slightly improved when compared to the previous year, yet they were still not sufficient to enable filling stations to maintain themselves. It was, therefore, indispensable to run a station shop with a wide range of products. More customers purchasing fuels meant more customers at the shop, which was equivalent to obtaining higher profits on non-fuel sales. The quality and range of fuels, as well as extensive and attractive loyalty programmes are, in case of filling stations owned by the biggest market operators, the best method used to attract customers. Last year there was an increase in the number of drivers filling up at the stations, which, consequently, translated into more drivers shopping at the stores belonging to the stations.

Changes in fuel sales at the stations owned by POPIHN member companies between individual months of 2017 are presented in the diagram in Fig. 20.

FIG. 22 MARKET OF SHOPS AT FILLING STATIONS OF POPIHN MEMBERS IN 2017 [%]

Source: POPIHN's own data

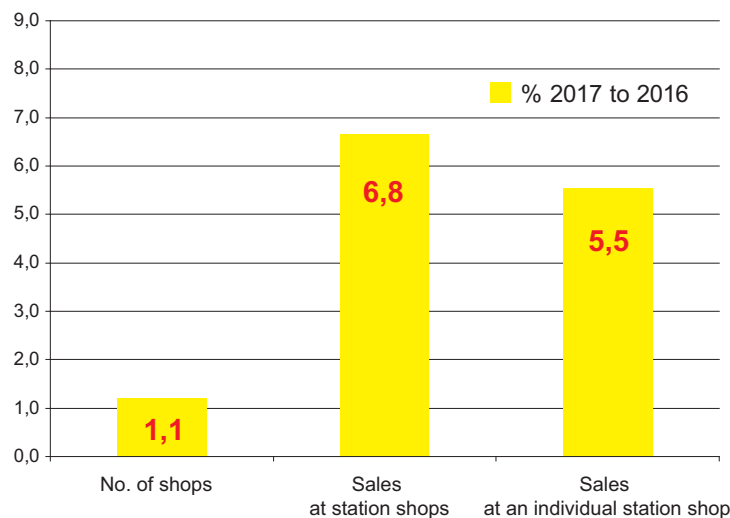
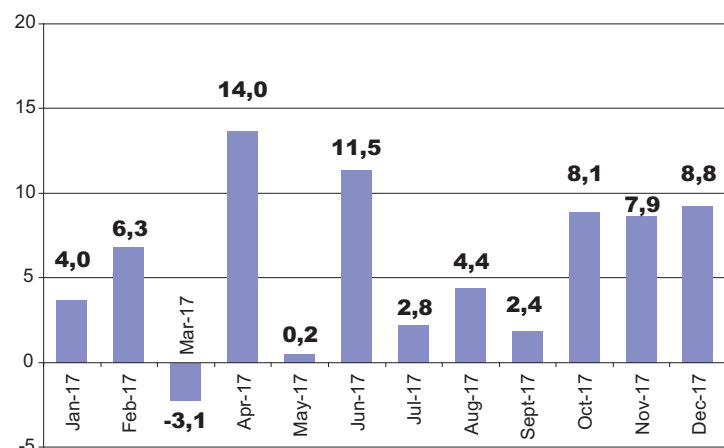


FIG. 23 CHANGE IN VALUE OF SALES IN SHOPS OF POPIHN MEMBERS IN INDIVIDUAL MONTHS OF 2017 COMPARED TO 2016 [%]

Source: POPIHN's own data



Even though throughout the year we witnessed changes in the fuel demand, sales volumes all the time remained at levels above zero, reaching a maximum level in October.

For the year as a whole, the average growth rate of fuel sales at stations owned by POPIHN member companies was 6%, whereas diesel sales showed an increase of 6%, petrol – a growth of 6%, and autogas – an increase of 4%. Analysis of sales growth data of POPIHN members and results of total official fuel consumption in the country shows substantial increases in sales at stations owned by independent companies. Better sales results were also recorded in the whole non-outlet segment (transport depots and companies, construction sector, railways, local governments), which is an area that used to be supplied with fuels from the informal market. An increase in the sales volumes typical of holidays and shortly afterwards, as well as introducing new legal solutions in the form of executive acts to the energy package and transport package, increased by the effectiveness and consequences of the activities of the authorities, resulted in significantly higher sales volumes in the second half of the year when compared to the first semester. Thus in the second part of the year as compared to the first 6 months of 2017 the sales of petrol at stations owned by POPIHN member companies increased by 6%, diesel sales showed an increase of 10%, and LPG – an increase of 11%. The above means that in all three types of fuel there was an increase of about one percentage point in comparison to the previous year results.

The growth rate of overall fuel sales was accompanied by increases in premium fuel sales, which for petrol amounted to 2% for the whole year, whereas for diesel it was 3%. The above means that more premium fuels were sold than in the year 2016, yet the sales volume increases were a few percentage points lower than when we compare the years 2016 and 2015.

Last year, while observing price levels and trends on the market of new and second-hand cars, POPIHN rightly assumed that there would be further sales growths of enhanced fuels, though they would most probably slow down. This was the case in 2017. It is still considered that an upward trend for premium fuels will continue or even improve. In 2017 after eliminating from the market a significant part of the grey zone there was a considerable growth in the official sales of fuels, and in particular standard fuels. This, in turn, led to a decrease in the dynamics of sales of premium fuels, which were influenced by the grey market activity much less than the sales of standard fuels. Under normal market conditions and with the grey zone stabilised at very low levels premium fuel shares will substantially increase in the overall fuel shares. Drivers already learnt that in order to maintain the engine in a proper condition they should use premium fuels at least from time to time. At the same time it constitutes an additional benefit for our natural environment and eliminates harmful impact on the quality of air, especially in urban agglomerations.

In 2017 the overall number of filling stations in the country, localized by POPIHN, equalled about 6,640, which is a fall of around 2.5%. Simultaneously, the number of filling stations owned by POPIHN member companies increased by 0.5%. The increase was a result of carrying out new investment projects, opening some of the stations after their



Fot. BP

modernization, but also taking over a certain number of stations from the independent sector. At the same time work was underway on improving the networks, which was reflected in terminating some cooperation agreements. The overall number of filling stations owned by POPIHN member companies increased to 3,750, which means that the biggest operators on the market acquired 30 filling stations for their networks. The number of oil companies' own stations grew by 1.3%, the number of stations operating under franchising formulas fell by 2%, and the number of stations under DODO arrangements remained practically unchanged.

Alongside the development of networks and investing in new outlets as well as modernizing the existing ones, we observed a growth in the number of stores located at filling stations. At the end of 2017 the total number of stores located at POPIHN members' stations operating under the formula COCO+CODO was 2,598 (30 more than in 2016), out of which 2,546 stores (32 more than in the previous year) were engaged in commercial activities. The growth in the number of stores was accompanied by increasing turnovers in those stores. In relation to 2016 the increase in turnover at stations operating only under the formula COCO+CODO (2,546 sites) equalled 6.8% and reached the level of over 4.6 bn PLN. The turnover of a single shop grew by 5.5%.

Sales margins from direct fuel sales in 2017 remained at a level not sufficient to maintain the station, thus a station store was a significant element of its functioning. It was in a station store where non-fuel goods were sold and where fast food outlets were opened on an increasingly larger scale. Thanks to the sector's activities as well as the actions undertaken by other organizations gathering entities involved in trade until now it has been possible to cut back the attempts of limiting the functioning of station stores, as well as eliminating from station stores the sales of alcohol, tobacco and basic OTC drugs. Non-fuel goods, on the one hand, help to maintain a filling station, while on the other hand they are a source of most needed goods in locations where pharmacies or grocery shops do not operate on Sundays.

Graph in Fig. 23 shows sales in stores located at filling stations between individual months in comparison with the same months in 2016. The shops' sales volumes only in March 2017 were lower than in the compared months of the previous year, while the remaining months showed better results than the year before. As usual, sales increased mainly in periods of public holiday travels, long weekends and summer holidays. Due to low sales margins on fuels it

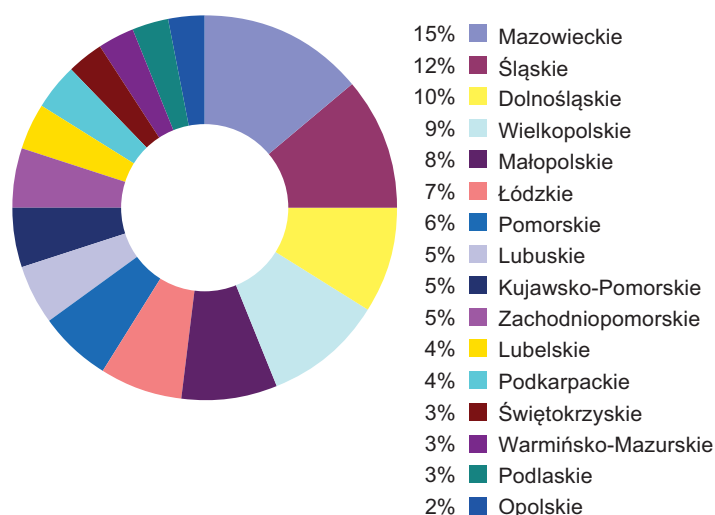
was specifically at the store where the filling station's profit was generated, indispensable to maintain the site and its employees.

The results of the comparison of geographical distribution of fuel sales in Poland, based on data submitted by POPIHN members, show that in relation to 2016 no major changes were observed. The province with the greatest demand for vehicle fuels is still Mazowieckie, whereas the smallest demand can be observed in the Opolskie province. Sales in 5 provinces account for the overall sales volumes in the remaining 11. It is worth noting that the biggest increase in sales volumes at the stations owned by POPIHN members was recorded in the provinces where, according to the estimates, until quite recently the size of the informal and illegal economy was the largest. In case of petrol these were the provinces of Małopolskie, Podkarpackie and Warmińsko-Mazurskie, whereas in case of diesel – Lubelskie, Podkarpackie and Świętokrzyskie.

The graph shows total sales of fuels, diesel and autogas. Separate sales of each of these fuel types present minor discrepancies from the presented graph, however, they are so small that the general scheme is assumed to fully display the retail sales trends in Poland. The ratio of sales carried out by POPIHN members in the biggest province (Mazowieckie) to the smallest one (Opolskie) in terms of demand was of above 6 to 1.

FIG. 24 DISTRIBUTION OF RETAIL SALES OF FUELS BY POPIHN MEMBERS IN POLAND IN 2017 [%]

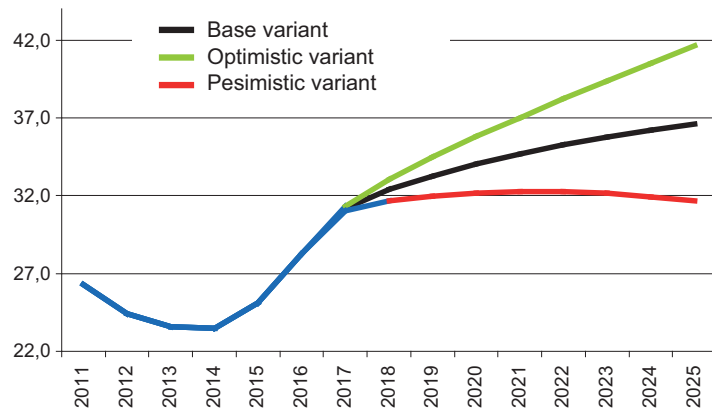
Source: POPIHN's own data



DEMAND FORECAST FOR THE POLISH MARKET UP TO 2025

FIG. 25 SCENARIO FOR LIQUID FUELS DEMAND IN 2017-2025 (in m. m³)

Source: POPIHN's own study



The liquid fuel demand scenarios, elaborated by POPIHN for the coming years, take into account the latest trends on the liquid fuels market observed both in Poland and around the world. The time frame of these scenarios extends until 2025, which should increase the probability of reaching forecast result, taking into account the current situation on the Polish oil market and estimated final results for 2017. In the previous year the official fuel demand in Poland significantly exceeded the forecast presented the year before as the baseline scenario for the Polish market. Market growth had been, indeed, predicted, yet new legal solutions such as fuel, energy and transport packages, as well as efficient activities of inspection services that applied newly-introduced legislation resulted in a much more significant increase in fuel consumption than the one predicted in the baseline variant. Limiting informal and illegal market operating mainly in the diesel segment to a significant extent, increasing the demand for petrol and lower fuel prices benefitting drivers were main elements thanks to which it was possible to allocate more fuel on the market than it had been predicted in the base scenarios. Thus the market shifted more significantly towards last year's optimistic scenario. New scenarios have been elaborated with the participation of POPIHN members, taking into account current transformations in the domestic and international oil markets. The baseline and optimistic scenarios assumed that there would be further increase of efficiency in combating the irregularities on the Polish market, aiming to further eliminate those. It was also assumed that stable prices of crude oil and finished products would be maintained on international markets and that the USD-PLN exchange rate would remain stable. New infrastructure investments to be implemented in 2018, to a large extent financed from the European Union funds, were taken into consideration as well. Changes in the drivers' preferences, i.e. buying cars with petrol engines rather than diesel ones were also included. It was also assumed that social subsidies in the form of 500+ programme would be maintained, that

there would be increases in the average domestic salary and the unemployment level would be low. Another assumption was that domestic tourism in holiday periods would continue to develop intensively.

The baseline scenario assumes that the Polish economy will continue to grow at a rate of over 4% annually. The remaining variants are based on the values below and above this level. Besides, it is estimated that the trend increasing the efficiency in combating the shadow economy in the coming years will continue and that the favourable price ratio between crude oil and fuels on international markets will be maintained. It has also been estimated that the range of fluctuations in the USD-PLN exchange rate will not exceed 10% of the level of 3.5 PLN, observed at the end of 2017.

The base variant scenario assumes that currently observed average oil prices can last for a longer period, with the prices ranging from 55 and 75 USD/bbl. Crude oil prices should remain on such levels for approximately 2 years, and then there is likely to be a systematic increase up to the level of approximately 85 USD/bbl annually. The baseline scenario assumes a stable situation in the international crude oil market (on the one hand agreements limiting the extraction and on the other hand increasing extraction from shale deposits). On a domestic market there are plans to intensify actions aimed at reducing the grey and black market through more efficient controls and consequently enforcing the new law. Such assumptions allow us to expect that 2018 will be another year with big increases in liquid fuel consumption, and that this trend will be maintained in the coming years, yet at a slower pace. The growth effect should be achieved through increases in official demand for diesel and petrol. Petrol is most probably going to come back to the game on the passenger transportation market at the expense of cars with Diesel engine fuel. Increasing the efficiency of petrol engines and flattening the difference between EU95 petrol and autogas prices will result in lowering the demand for autogas. The society becoming wealthier and a large supply of second-hand cars present on the markets in Western Europe, related to exchanging the vehicle fleet for more ecological one, will result in a growth of car fleet in Poland. New road investments will trigger the increase of motor traffic outside the cities at the expense of other means of transport, mainly rail. The role of public transport in bigger cities is expected to grow; at the same time it will become more and more ecological and focused towards the development of car-sharing with the use of electric vehicles. A downward demand trend for light fuel oil shall continue, being slightly braked by new environmental protection norms which take into account combating smog. In this variant, the official domestic market demand for liquid fuels in 2025 is currently being estimated at approximately 36 – 37 m. m³.

The optimistic scenario assumes, apart from the same assumptions as for the baseline variant, lowering the level of crude oil and fuels quotations by approximately 20% in relation to the data presented above, a slower development of the sector of vehicles running on alternative fuels and maintaining for 2 – 3 years a trend (observed since 2016)

towards a significant increase in domestic vehicle transportation fleet (the individual, group and transport one). The most important factor will be, in fact, stepping on the path of fast economic growth with GDP significantly above 5%. In this scenario the domestic market demand for liquid fuels in 2025 is estimated at over 42 m. m³.

The pessimistic scenario assumes a lower prospect for growth of the Polish economy on the level below 3%, a significant decline in the Polish zloty's (PLN) purchasing power or destabilisation of the international situation and substantial increases in the prices of crude oil. Such circumstances may lead to the necessity of raising taxes in Poland, as well as, as was almost always the case in the past, in the first place for the fuel sector, which might translate into significant increases of fuel prices. An increase in fiscal burdens and high fuel prices could, once again, get the grey and black fuel markets moving.

While observing the current liquid fuels market situation in Poland, we can – without major concern – assume that the baseline scenario seems to be the one most likely to unfold in the coming years. Nonetheless, we need to remember that oil sector is extremely sensitive to even the smallest fluctuations in geopolitical or economic situation in any part of the world, and especially among the biggest oil producers. On the Polish market the state is currently winning the battle against the grey zone, but let us bear in mind that the war has not finished yet. One can say today that the effects of the functioning of the new legislation are satisfactory and relevant

inspection authorities are working very well. Nevertheless, we should keep in mind that those who make money on illicit fuel trade are constantly looking for the possibilities to circumnavigate the law, at the same time having at their disposal significant financial resources.

In the Polish economy, however, there is still space for substantial increase in the official demand for oil-derived fuels. At the same time the interest in petrol is back, which should impact the increase of demand. There continue to be significant technical reserves when it comes to traditional engines running on conventional fuels, thus such engines can meet the growing requirements to reduce vehicle emissions. Competition from alternative fuel vehicles, including electric drive vehicles, which are currently being strongly promoted, is on the doorstep. Limiting car traffic in large agglomerations or implementing car sharing schemes have already started. Traditional fuel cars being withdrawn from use, in particular on the Polish market, is still a long way off, yet, as the example of hybrid and electric cars shows, this is a quickly forthcoming future. In the perspective created by this scenario fuel production sector has nothing to fear as traditional fuels will continue to be the most important energy carrier used in transport. The future will, however, force oil companies to look for new areas to generate profits. It is estimated that a substantial reduction of oil consumption to produce fuels will take place after 2030, yet this prospect in the economy is by no means a distant one.



MOTOR FUEL PRICES

POPIHN's price forecasts presented at the last year's conference turned out to be correct. Retail prices of fuels in Poland on average slightly rose throughout the year, yet there were also periods in 2017 when they were lower than in the corresponding periods in 2016. Thus 2017 was the first year after four years in a row with prices growing year by year. For the whole year a litre of 95-octane petrol was on average 0.25 PLN more expensive, while a litre of diesel cost 0.31 PLN more than in 2016. Autogas was also more expensive. An increase in the price of this fuel type equalled 0.28 PLN/l. The retail price of 95-octane petrol was exceeding the price of diesel for the whole year. The average annual price difference between the two types of fuel was 0.16 PLN, which means that it was 0.06 PLN more per litre than the same difference in 2016. In the first six months of 2017 we witnessed a continuation in the fuel price falls, whereas in the second half of the year we could just observe regular increases in retail prices of all fuel types. The price range for 95-octane petrol was from 4.32 and 4.78 PLN/l. For diesel the range was from 4.11 to 4.66 PLN/l. The difference between the lowest and the highest 95-octane petrol price throughout the year equalled 0.46 PLN/l, whereas the same difference for diesel amounted to 0.55 PLN/l. It is half as much as observed in 2016. The price levels of both fuel types at the end of the year were very similar to the ones recorded at the beginning of the year. Relatively small increases in fuel prices encouraged people to buy more, even in case of drivers who normally fill up for the same amount of money. Fuel prices benefitting drivers and efficient fight against the grey and black markets allowed filling stations operators to earn better margins than in the previous year. Nonetheless, such margin levels required a strong support in the form of non-fuel revenues in order to keep the petrol stations afloat.

Price fluctuations at Polish filling stations were, as always, influenced by the situation on international markets and the ratio of the PLN purchasing power against the USD. Fortunately for Polish drivers, this ratio strengthened, which made it possible to limit the scale of price increases.

The strengthening equalled the level of 4%. In 2017 crude oil prices reached the average annual level of 54.30 USD/bbl, which was 24% above the 2016 level. The lowest quotations of crude oil price amounted to 43.99 USD/bbl in the middle of 2017. This was almost twice as much as the lowest quotation for Brent crude oil in spot transactions in 2016. The maximum quotation equalled 66.15 USD/bbl and was recorded at the end of December. There were, as always, a number of reasons accounting for such fluctuations in oil prices and they took place at different times of the year. The ones that turned out to be most important for the market were implementing the 2016 announcements of OPEC and other oil producing countries, mainly Russia, to reduce the volume of crude oil produced by this group, as well as signing an agreement on maintaining those restrictions until the end of 2018. Despite the activities described above, there was constantly a slight oversupply of crude oil on the market, and a systematically increasing shale oil extraction, mainly in the USA, but also in, for example, Canada, stabilised the possibility to drive up crude oil price. Unstable situation in Libia and Nigeria, as well as tensions provoked by internal situation in Iran also influenced oil prices increases in the second half of 2017. Phenomena similar to the ones observed for oil were recorded for fuels traded on the international commodity stock exchanges. The increases were also recorded there, yet it is worth noting that crude oil trends were only reflected by diesel prices, while petrol prices increased significantly less. It can, however, be said that crude oil influenced the trends on fuel markets. An increase in demand for transport fuels was a permanent trend, yet this time it did not force an increase in oil prices. There continued to be a surplus of those products on the market, but it is important to point out that its level, as was the case with crude oil, was reduced. On the Polish market net wholesale prices, without changes in taxes, were shaped by the changes in stock market quotations of fuels and the changes in the PLN-USD exchange rate. The price reductions did not turn out beneficial for individual drivers and transport companies, but at the same time the state's budget recorded increasing VAT revenues. Besides, additional fiscal revenues had the form of bigger official sales volumes after eliminating parts of the grey and black fuel market segment.

As in previous years, the fuel prices on the Polish market are shaped by producers and traders on the basis of the so-called import parity, the main components of which are commodity market prices of fuels and the PLN exchange rate against the US dollar. Fiscal levies that have to be contributed to the state budget are also taken into consideration. The changes in the import parity, caused by price changes of fuels, determined the direction of changes in wholesale and, consequently, retail prices.

Brent crude oil prices, which determine prices for the European market, are shown in Figure 26.

The year 2017 in terms of oil market was mainly marked by the OPEC countries observing whether production restrictions were being complied with and watching the US shale sector's reactions to rising crude oil quotations in the

FIG. 26 PRICES FOR BRENT CRUDE AND THE USD EXCHANGE RATE IN 2017

Source: e-petrol.pl, POPIHN

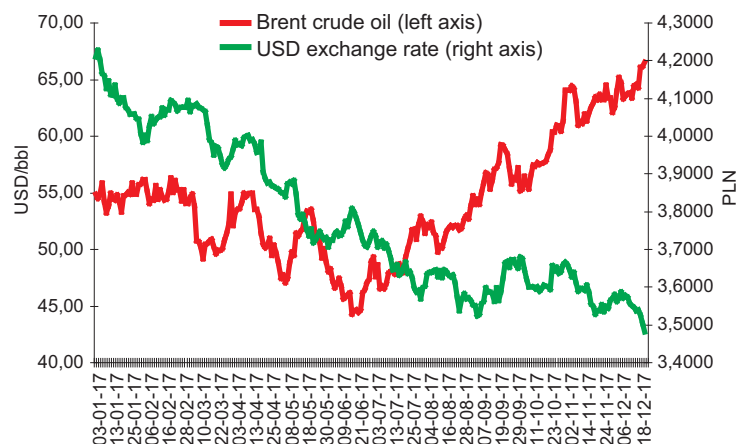


FIG. 27 COMPARISON OF ANNUAL AVERAGE PRICES FOR CRUDE OIL, LIQUID FUELS AND THE USD EXCHANGE RATE IN 2016 AND 2017

Source: Prices from e-petrol.pl for Brent crude FOB Sullom VOE, for fuels CIF NWE ARA

Description	2016		2017		Reference 2017 to 2016 2016=100
	Value	Units	Value	Units	
1	2	3	4	5	6
Prices for Brent crude	43.69	USD/bbl	54.30	USD/bbl	124
Prices for Premium petrol 10 ppm S	474.4	USD/t	564.1	USD/t	119
Prices for diesel 10 ppm S	405.4	USD/t	500.7	USD/t	124
USD exchange rate	3.9459	PLN	3.7783	PLN	96

PRICE FLUCTUATIONS AT POLISH FILLING STATIONS WERE INFLUENCED BY THE SITUATION ON INTERNATIONAL MARKETS AND THE RATIO OF THE PLN PURCHASING POWER AGAINST THE USD.

worldwide. As shown by the annual results, production limiting activities brought the expected outcome in the form of lowering oil surplus on international markets and raising crude oil quotations. The latter is particularly crucial for Russia and Saudi Arabia, whose budgets had large deficits after lowering crude oil prices in 2016. On the market there is still a certain surplus of crude oil and fuels. Nevertheless, if it is possible to maintain in force the introduced production limits, there is a chance that the quotations remain steady in between 55 and 75 USD/bbl in the nearest future, which will, in turn, trigger the upward movement of current forecasts by around 15 USD on every barrel of crude oil. Higher quotations will probably result in the increase in the number of extraction installations in the US shale fields. It is estimated that as early as in the first half of 2018 American oil production will break another record, exceeding the production level of 10 m. barrels daily. This is, indeed, good news for drivers as it guarantees maintaining fuel prices at the level similar to the one in 2017.

Economic results, presented by domestic producers of fuel, prove that these operators took advantage of the previous year to raise their value. The state budget benefitted as well, while Polish drivers slightly lost. One has to bear in mind that in Poland taxes constitute over 50% of fuel price, including VAT, which is calculated as a percentage that increases when the price increases. Wholesale prices in Polish refineries grew on a smaller scale than it could result from the increases in quotations, amounting to 6% for petrol and 7% for diesel. What is interesting, in 2016 the same prices declined by the same values.

Factors affecting domestic wholesale and retail prices (prices of crude oil, prices of main fuels and the dollar exchange rate) were as follows in 2017 (Fig. 27).

The interdependence of crude oil prices and the USD exchange rate in the Polish market is shown in Fig. 28. Such changes had to result in price increases in the second half of the year.

Comparison of trends for crude oil and fuels is presented in Fig. 29.

The upward trend in oil quotations was practically visible from the beginning of the year, with slight falls in holiday season. In this way drivers benefitted from lower prices

FIG. 28 FLUCTUATIONS IN BRENT CRUDE PRICES AND IN THE EXCHANGE RATE OF THE USD IN 2017 COMPARED WITH 2016 AVERAGES [%]

Source: POPIHN and e-petrol.pl

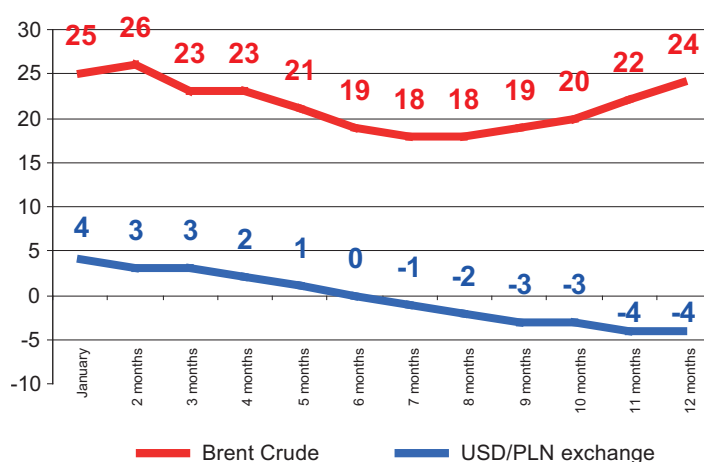
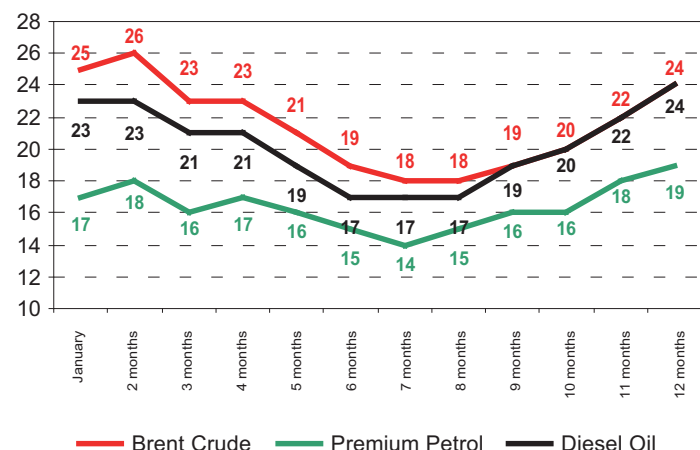


FIG. 29 FLUCTUATIONS IN CRUDE OIL AND FUEL QUOTATIONS IN 2017 COMPARED WITH 2016 AVERAGES [%]

Source: POPIHN and e-petrol.pl



during their holiday travels. Diesel recorded greater changes in increasing quotations than petrol. Both fuel types became more expensive as a result of increasing crude oil quotations, as well as due to growths in demand for fuels in most developed and developing countries. Full storage depots waiting for customers resulted to be the factor negatively influencing (acting as a brake) the pace of price increases.

The situation on the Polish market reflects the trends observed on the world stock exchanges. The prices in the country are shaped by the so-called import parity, which is influenced by changes in the prices of fuels, PLN-USD exchange rate and the tax burdens that prevail on the domestic market. In 2017 global prices increased on average, but at the same time there was a strengthening in the PLN purchasing power against the USD. Tax burdens remained at an unchanged level. Changes in annual ex-refinery prices for Polish oil companies are shown in tables 30 and 31.

The increases of the average net prices of 95-octane petrol in case of Polish producers, directly related to the stock market quotations, were lower than the increases of these

quotations, which was mainly caused by a strengthening in Polish zloty's purchasing power.

Comparisons of diesel prices in the Polish refinery market are given in Figure 31.

Similarly as in the case of petrol, the increase in net domestic diesel fuel prices did not overlap with the degree of increases on international markets.

After eliminating a large part of grey and black market economic activity from fuel market the wholesale prices to a greater extent translate into shaping retail prices. Therefore the changes in the latter ones in 2017 were almost identical with the adjustments of prices in domestic refineries. In 2015 95-octane petrol cost (on average in the year) 0.13 PLN/l more than diesel. In 2016 this price difference was 0.22 PLN/l, while in 2017 it decreased again to the level of 0.16 PLN/l. The above was mainly caused by the changes on international markets. Nevertheless, petrol prices at all times remained higher than diesel prices, and, furthermore, taking into consideration drivers' increasing interest in petrol engines vehicles, this trend will be maintained in the future, whereas the price difference will most probably grow.



Fot. Lotos

FIG. 30 COMPARISON OF ANNUAL AVERAGE WHOLESALe PRICES OF FUELS AT DOMESTIC FUEL PRODUCERS

Source: PKN ORLEN SA, Grupa LOTOS SA, POPIHN

Description	2016		2017		Reference 2017 to 2016 2016=100
	Value	Units	Value	Units	
1	2	3	4	5	6
EU95 petrol gross (without VAT)	3 399	PLN/1000 l	3 593	PLN/1000 l	106
Excise	1 540	PLN/1000 l	1 540	PLN/1000 l	100
Fuel surcharge	129	PLN/1000 l	129	PLN/1000 l	100
EU95 petrol net	1 730	PLN/1000 l	1 924	PLN/1000 l	111

FIG. 31 COMPARISON OF ANNUAL AVERAGE WHOLESALe PRICES OF DIESEL AT DOMESTIC FUEL PRODUCERS

Source: POPIHN's own study based on data of PKN ORLEN SA and Grupa LOTOS SA

Description	2016		2017		Reference 2017 to 2016 2016=100
	Value	Units	Value	Units	
1	2	3	4	5	6
Diesel with 0.001 S gross (without VAT)	3 266	PLN/1000 l	3 494	PLN/1000 l	107
Excise Diesel with S 0,001%	1 171	PLN/1000 l	1 171	PLN/1000 l	100
Fuel surcharge	288	PLN/1000 l	288	PLN/1000 l	100
Diesel with S 0,001% net	1 807	PLN/1000 l	2 035	PLN/1000 l	113

FIG. 32 COMPARISON OF MOTOR FUELS' RETAIL PRICES

Source: POPIHN's own study on the basis of data from e-petrol.pl, WNP

Description	2016		2017		Reference 2017 to 2016 2016=100
	Value	Units	Value	Units	
1	2	3	4	5	6
Average retail price of EU95	4,34	PLN/litre	4,59	PLN/litre	106
Average retail price of ON	4,12	PLN/litre	4,43	PLN/litre	108
Average retail price of autogas	1,80	PLN/litre	2,08	PLN/litre	116

In the past, when petrol vehicles were the dominant ones in passenger transport, diesel was at times much cheaper than the basic fuel type.

A comparison of the retail prices of EU95 petrol, autogas and diesel in the years 2016-2017 is shown in the table (Fig. 32).

The margins on fuel sales in 2017 were slightly higher, compared to the ones observed the previous year. However, keeping a filling station afloat depended, to a large extent, on non-fuel sales and offering various additional services. Throughout the year the margins were diversely shaped, yet (on average in a year) more profits were obtained from petrol sales than diesel. The price relations 95-octane petrol/autogas, which are significant for drivers whose vehicles are equipped with a dual fuel supply system, remained on a level which encouraged drivers to purchase autogas, yet it should be pointed out that the cost-effectiveness of this choice decreased, as was the case in 2016. The autogas to 95-octane petrol price ratio was on average almost 45% all year round, while in the previous year it stood at 41%. The price trends of individual fuels on the domestic market are shown by the graphs in Fig. 33 and 34.

The downtrend in average annual fuel prices which started in 2012 was stopped in 2017. The changes in the way of shaping the market, undertaken by the countries producing crude oil, led to a situation of significant increases in international quotations and, in turn, domestic prices; taking into account current market interdependence, it is possible that the prices in the first months of 2018 will remain on the levels close to the ones observed at the end of 2017. Most probably the whole 2018 is going to be finalised with the prices higher than the previous year's ones. It seems likely, however, on condition that consequent limitations in crude oil production be maintained on a global scale. Otherwise the prices at filling stations might fall again. The graph 35 shows the relations between quotations on the international commodity stock exchanges and retail prices of fuels in Poland.

The estimates of fuel retail operators show that a sales margin (on fuel sales only) essential for keeping a filling station in operation should equal at least 0.25-0.35 PLN/l, depending on the site location. In 2017, similarly to the years before, few retail sites managed to reach that level. Without the non-fuel revenues filling stations would not be able to operate without incurring losses. It is worth bearing in mind as there are constant initiatives aiming at limiting the product offer at filling stations or withdrawing such goods as OTC drugs, alcoholic beverages or tobacco products. Such activities can eventually result in a significant reduction in the number of places where drivers will be able to fill up their tanks.

Drivers have already got used to the fact that during the year various regions of the country, sometimes even within the same city and at the stations of the same operator, see significant fuel price differentials. Prices are mainly affected by station location and its standard. Price differences at the end of the year reached 0.30 PLN per litre, and in case of stations located on motorways it was even more. The above was slightly less (about 0.20 PLN per litre) than the year before. The factors determining the level of retail prices in various parts of the country remained unchanged. They were the level of demand and the scale of competition between

FIG. 33 RETAIL PRICES OF EU95, DIESEL, LPG AND LFO IN 2006-2017 [PLN/1000 L]

Source: POPIHN's own study on the basis of data from e-petrol.pl, WNP

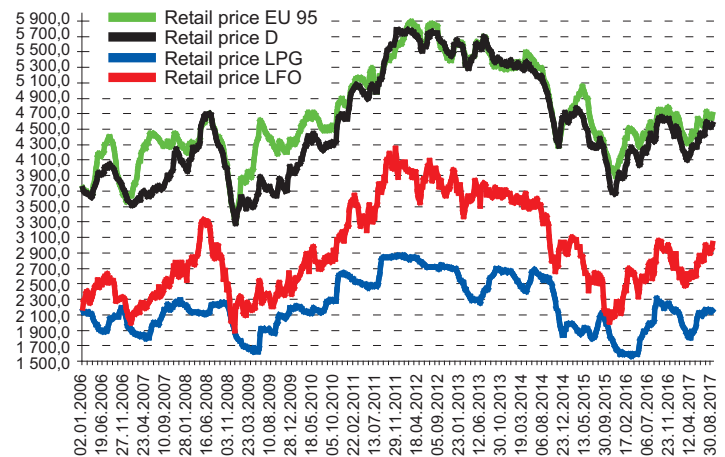


FIG. 34 RETAIL PRICES OF EU95, DIESEL, LPG AND LFO IN 2017 [PLN/1000 L]

Source: POPIHN's own study on the basis of data from e-petrol.pl, WNP and ARE

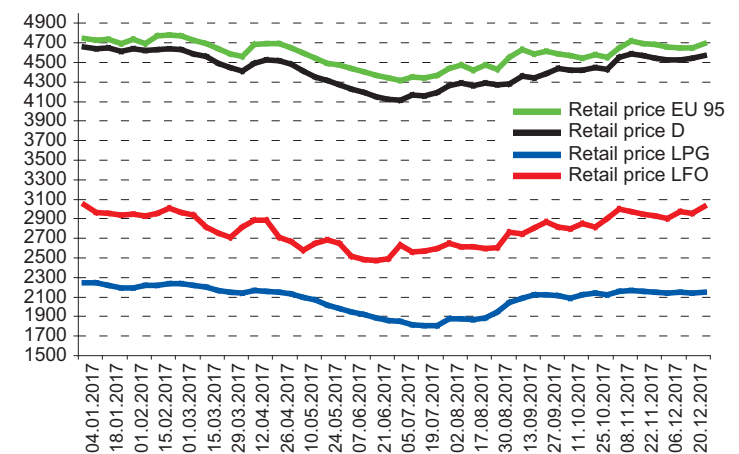
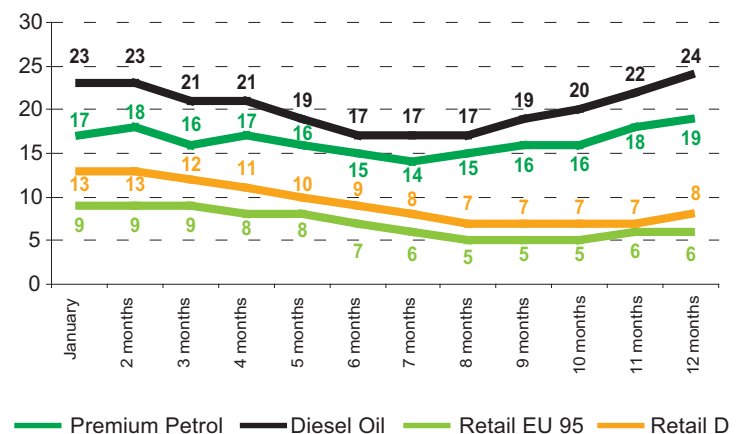


FIG. 35 CHANGES IN QUOTATIONS FOR FUELS AND IN RETAIL PRICES OF EU95 PETROL AND DIESEL IN POLAND IN 2017 COMPARED TO 2016 AVERAGE PRICES [%]

Source: POPIHN, epetrol.pl



different operators, as well as the comprehensiveness of offered services. The accessibility of fuel from the grey or black market in a given region had less and less influence on the price levels.

As in previous years, also in 2017 there was a high seasonal price range between different regions of the country. The differences were also observed alongside main communication routes. Statistically, the most expensive provinces in the country are: Mazowieckie, Małopolskie, Podkarpackie and Zachodniopomorskie. During the summer and winter holidays prices were much more expensive along main transit routes and in the resorts. On the other hand, the so-called fuel tourists contribute to maintaining higher prices at the stations close to the borders with EU countries.

The factors which determine retail prices in Poland are

taxes imposed on fuels. Figure 36 presents average tax burdens for motor fuels in 2017.

In 2017 there were no changes in the total amount of specific taxes on fuels (excise tax, fuel surcharge). The VAT did not change either, remaining at the level of 23% of net price increased by specific taxes. On average throughout the year the tax burdens included in fuel prices rose in relation to 2016. This was mainly caused by an increase in net fuel prices along with the corresponding VAT. Ultimately, for both 95-octane petrol and diesel the total proportion of taxes included in the retail prices of these two types of fuel grew by 2% and 3% respectively. In monetary terms it was 47 PLN for EU95 petrol and 58 PLN for diesel more to pay to the state for every 1000 litres of sold fuel. Percentage increases of taxes paid in 2017 were identical in terms of value with the decreases recorded the previous year.

FIG. 36 COMPARISON OF TAX BURDENS ON MOTOR FUELS IN 2016 AND 2017

Source: POPIHN's own study

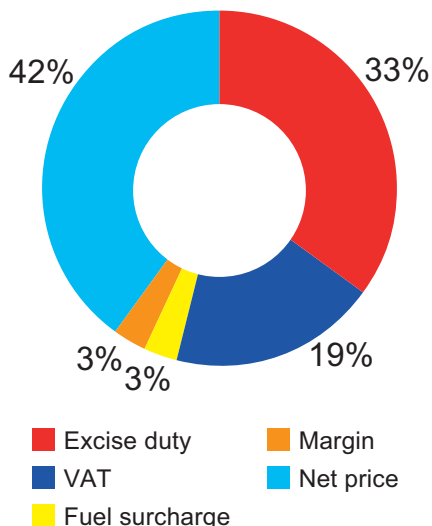
Description	2016		2017		Reference 2017 to 2016 2016=100
	Value	Units	Value	Units	
1	2	3	4	5	6
Total taxes for EU95 (VAT+excise+fuel surcharge)	2 480	PLN/1000 l	2 527	PLN/1000 l	102
Total taxes for ON (VAT+excise+fuel surcharge)	2 229	PLN/1000 l	2 287	PLN/1000 l	103
% share of taxes in retail price of EU95	57	%	55	%	96
% share of taxes in retail price of ON	54	%	52	%	95

THE FACTORS WHICH DETERMINE RETAIL PRICES IN POLAND ARE TAXES IMPOSED ON FUELS.

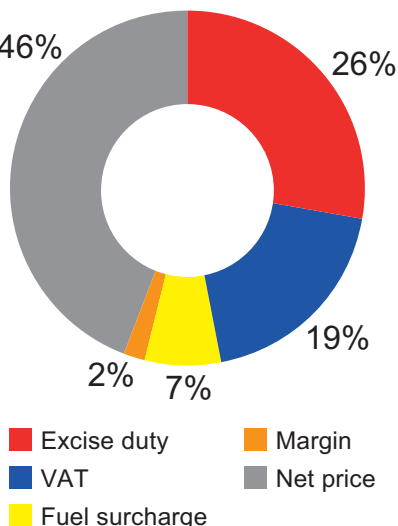
FIG. 37 STRUCTURE OF RETAIL PRICE OF MOTOR FUELS IN 2017

Source: POPIHN's own calculations

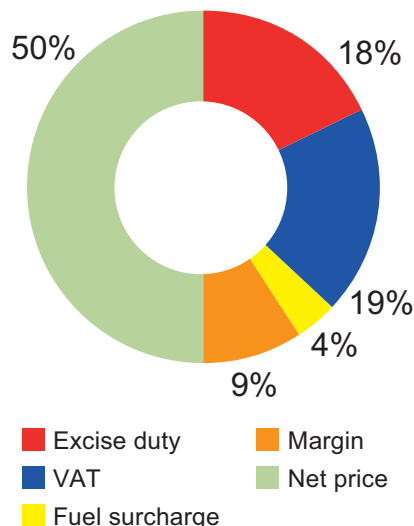
Structure of retail price of EU95 averaged of 2017



Structure of retail price of diesel averaged of 2017



Structure of retail price of autogas averaged of 2017



Higher retail prices of petrol and diesel fuels entailed a fall in the total taxation share in the end consumer price. That increase equalled 4% and 5%, respectively, for EU95 petrol and diesel. The excise tax and the fuel surcharge are specific taxes not related to the net price and therefore their share in the price decreases alongside the increase in the net price. VAT is calculated as a percentage of the net price, excise tax and fuel surcharge included, so it is a percentage of the net price and a tax on other tax burdens.

On average, in 2017 taxes represented 55% of 95-octane petrol and 52% of diesel retail price. This was slightly less than in 2016.

The structure of annual average retail prices for EU95 petrol and diesel is presented in the charts in Fig. 37.

In terms of values, the price structure is the following Fig. 38.

The table below (Fig. 39) shows the comparison of prices of motor fuels in the European Union with domestic prices at the end of December 2017

FIG. 38 STRUCTURE OF RETAIL FUEL PRICES IN 2016 AND 2017 (IN PLN/L)

Source: POPIHN's own calculations

	Eurosuper 95 Petrol						Diesel						Autogas					
	Retail price	Excise tax	VAT	Fuel surcharge	Margin	Net price	Retail price	Excise tax	VAT	Fuel surcharge	Margin	Net price	Retail price	Excise tax	VAT	Fuel surcharge	Margin	Net price
Average 2016	4,34	1,54	0,81	0,13	0,13	1,73	4,12	1,17	0,77	0,29	0,08	1,81	1,80	0,38	0,34	0,09	0,18	0,82
Average 2017	4,59	1,54	0,86	0,13	0,14	1,92	4,43	1,17	0,83	0,29	0,10	2,04	2,08	0,38	0,39	0,09	0,18	1,05
% change	5,8	0,0	5,8	0,0	10,3	11,0	7,5	0,0	7,5	0,0	27,4	12,7	15,6	0,0	15,6	0,0	-1,3	28,0

FIG. 39 AVERAGE RETAIL PRICES AND TAXES IN EU MEMBER STATES AND IN POLAND AT THE END OF DECEMBER 2017 IN EUR/1000 L

Source: Weekly Oil Bulletin EIA

	Eurosuper 95 Petrol					Diesel (EN 590)					VAT [%]
	Sale price	Price without taxes	Excise	VAT amount		Sale price	Price without taxes	Excise	VAT amount		
	1	2	3	4	5	6	7	8	9	10	11
Austria	1 205,0	510,8	493,4	200,8		Austria	1 157,0	554,5	409,7	192,8	20
Belgium	1 349,4	500,5	614,7	234,2		Belgium	1 301,7	537,3	538,5	225,9	21
Bulgaria	1 042,9	506,1	363,0	173,8		Bulgaria	1 045,0	540,6	330,2	174,2	20
Croatia	1 304,6	524,8	518,9	260,9		Croatia	1 236,3	577,7	411,3	247,3	25
Cyprus	1 223,5	538,4	489,8	195,3		Cyprus	1 238,0	579,6	460,7	197,7	19
Czech. Rep.	1 192,7	482,8	502,9	207,0		Czech. Rep.	1 162,1	531,6	428,8	201,7	21
Denmark	1 547,4	617,5	620,4	309,5		Denmark	1 320,4	633,4	422,9	264,1	25
Estonia	1 237,0	608,1	422,7	206,2		Estonia	1 237,0	637,9	392,9	206,2	20
Finland	1 456,0	521,4	652,8	281,8		Finland	1 343,0	592,2	490,9	259,9	24
France	1 407,9	513,9	659,4	234,7		France	1 286,6	525,5	546,7	214,4	20
Greece	1 534,0	526,3	710,8	296,9		Greece	1 303,0	629,9	420,9	252,2	24
Spain	1 242,5	565,5	461,4	215,6		Spain	1 146,1	579,8	367,4	198,9	21
The Netherlands	1 576,0	516,1	786,4	273,5		The Netherlands	1 283,0	562,5	497,8	222,7	21
Ireland	1 389,0	521,5	607,8	259,7		Ireland	1 279,0	540,8	499,0	239,2	23
Lithuania	1 159,8	524,1	434,4	201,3		Lithuania	1 059,9	529,0	347,0	183,9	21
Luxembourg	1 180,0	546,5	462,0	171,5		Luxembourg	1 058,0	569,3	335,0	153,7	17
Latvia	1 186,7	464,4	516,3	206,0		Latvia	1 093,3	481,6	422,0	189,7	21
Malta	1 310,0	560,8	549,4	199,8		Malta	1 180,0	527,6	472,4	180,0	18
Germany	1 378,0	503,5	654,5	220,0		Germany	1 207,0	543,9	470,4	192,7	19
Portugal	1 510,0	568,6	659,0	282,4		Portugal	1 321,0	603,2	470,8	247,0	23
Romania	1 108,9	507,6	424,2	177,1		Romania	1 131,9	556,6	394,6	180,7	19
Slovakia	1 305,0	507,3	580,2	217,5		Slovakia	1 177,0	564,8	416,0	196,2	20
Slovenia	1 288,9	480,2	576,3	232,4		Slovenia	1 236,3	511,0	502,4	222,9	22
Sweden	1 494,8	545,3	650,5	299,0		Sweden	1 493,0	729,8	464,6	298,6	25
Hungary	1 155,0	514,1	395,3	245,6		Hungary	1 202,4	583,1	363,7	255,6	27
Great Britain	1 354,6	475,7	653,1	225,8		Great Britain	1 392,1	506,9	653,2	232,0	20
Italy	1 554,5	545,8	728,4	280,3		Italy	1 426,6	551,9	617,4	257,3	22
POLAND	1 124,4	510,6	400,2	213,6		POLAND	1 095,7	537,7	349,8	208,2	23
European average	1 314,9	525,3	556,7	232,9		European average	1 229,0	565,0	446,3	217,7	
Price in Poland against average European price	86%	97%	72%	92%		Price in Poland against average European price	89%	95%	78%	96%	

FIG. 40 RETAIL PRICES OF EU95 PETROL IN UE MEMBER STATES AT THE END OF DECEMBER 2017

Source: Weekly Oil Bulletin EIA

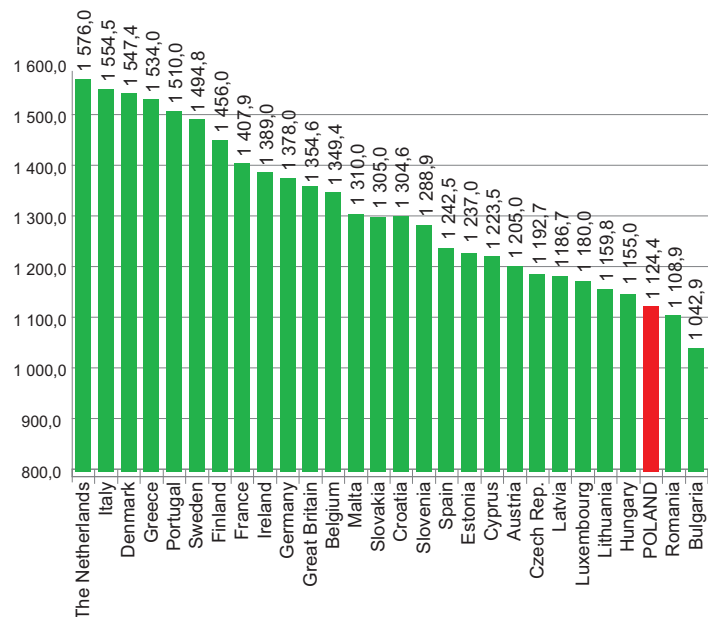
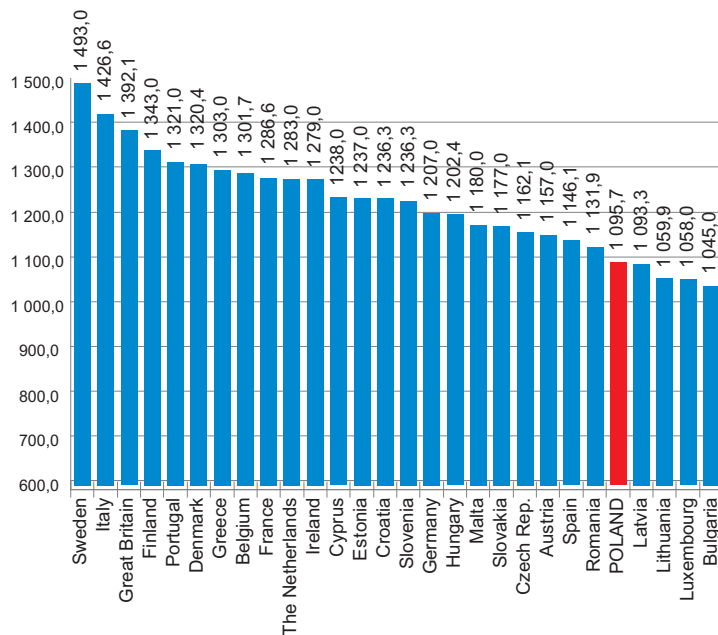


FIG. 41 RETAIL PRICES OF DIESEL IN UE MEMBER STATES AT THE END OF DECEMBER 2017

Source: Weekly Oil Bulletin EIA



THROUGHOUT THE WHOLE 2017 FUEL PRICES IN POLAND (CALCULATED IN EURO) WERE PRACTICALLY AMONG THE LOWEST IN THE EUROPEAN UNION. SUCH WAS THE CASE IN THE PREVIOUS YEARS WITH BOTH PETROL AND DIESEL.

FIG. 42 SHARE OF TAXES IN RETAIL PRICE OF EU95 PETROL IN EUROPEAN COUNTRIES AT THE END OF DECEMBER 2017

Source: POPIHN's own study

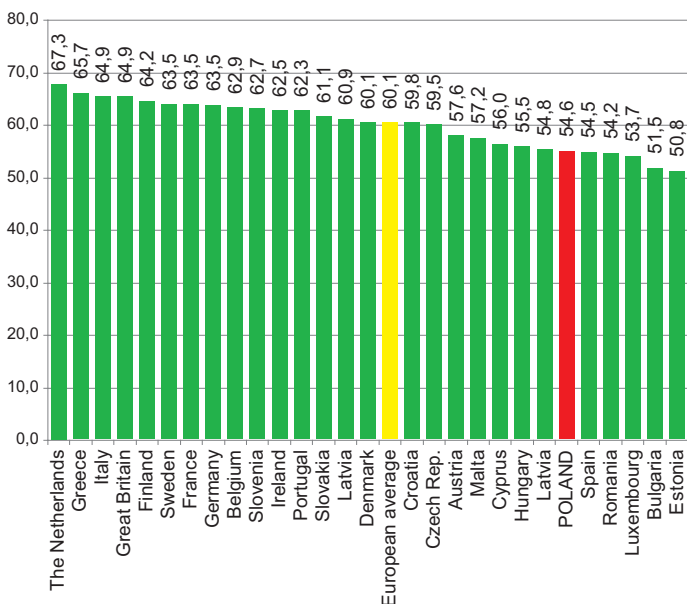
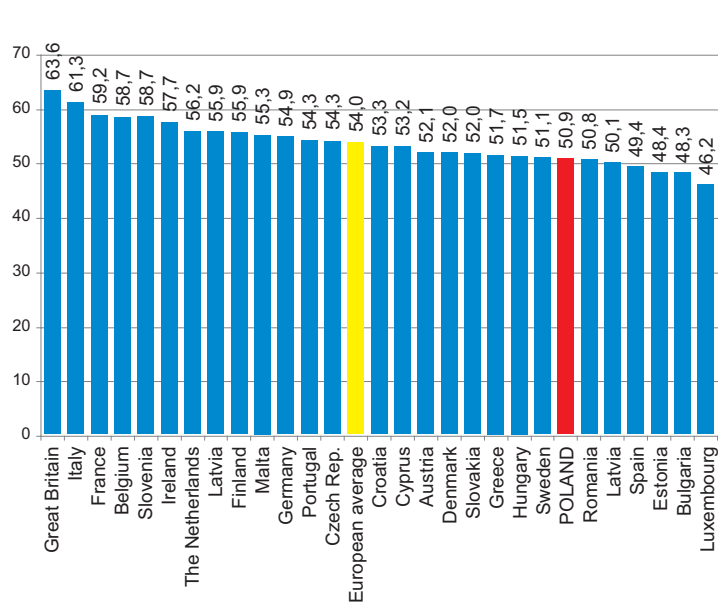


FIG. 43 SHARE OF TAXES IN RETAIL PRICE OF DIESEL IN EUROPEAN COUNTRIES AT THE END OF DECEMBER 2017

Source: POPIHN's own study



Throughout the whole 2017 fuel prices in Poland (calculated in euro) were practically among the lowest in the European Union. Such was the case in the previous years with both petrol and diesel. At the end of 2017 domestic retail prices of EU95 petrol were 14% lower and those for diesel 11% lower than the average prices for the whole European market. Compared to December 2016, this is 3 percentage points less for EU95 petrol and 1 percentage point less for diesel.

In December 2017 domestic net prices (excluding taxes and converted into euro) of EU95 petrol and diesel were lower than the average European prices by 8% and 4% respectively. Net prices in all European Union countries are quite similar, and the differences in retail prices are mainly caused by taxes applicable in different countries and levels of margins.

At the end of 2017 for EU95 petrol the difference between the highest and the lowest net price observed in EU countries was EUR 153 (which is EUR 16 more than in the previous year), whereas the difference between the highest and the lowest retail price was EUR 533 per 1000 litres (which is identical with the previous year). Thus there was an increase in the net price spread, but at the same time the difference between the prices at the dispensers was maintained. Such relations between net and gross prices suggest lower margins on retail sales of fuels. Such a trend is being observed not only in Poland, but across the entire European Union. For diesel the difference between net prices equalled EUR 248 per 1000 litres, and the difference between retail prices was EUR 448 per 1000 litres. In this case the difference between net prices grew almost twofold, and the difference between retail ones declined.

Poland is one of the European countries with the highest applicable rate of VAT for fuels, but due to relatively low net prices the actually paid VAT is in the middle of the European rates. At the end of December the difference between the amount of VAT paid on EU95 petrol, compared to the EU average, was 8%, which is 3 percentage points less than in the previous year.

In the case of diesel this ratio was 4% lower than the EU average, which is 2 percentage points less than in the previous year. The amounts of excise tax paid (after conversion into euro, including fuel surcharge) respectively for EU95 petrol and diesel were 18% and 12% lower than the European averages. This is twice less than the year before.

In December 2017 in Europe EU95 petrol was the cheapest in Bulgaria, Romania and Poland, respectively. Diesel was cheaper (than in Poland) than the next cheapest price, in, respectively: Bulgaria, Luxembourg, Lithuania and Latvia. Therefore it was profitable to come to Poland from any EU country in order to fill up one's car completely. Stations located in the border areas, especially in the western and southern part of the country, as usual recorded good sales volumes and had slightly higher prices, and thus bigger margins. Traditionally fuels across Poland's eastern border, in non-EU member countries, were cheaper than in Poland, which in turn encouraged Polish drivers from those areas to fill up in Ukraine, Belarus or the Kaliningrad Region.

When buying fuel across the entire EU, drivers have to pay taxes, which constitute over half of the retail price paid at the dispensers. As we can see in the graphs picturing tax share in fuel prices in different European countries, the Poles, when

153 euro

The difference between the highest and lowest retail prices for gasoline 95 at the end of 2017 in European countries.



Fot. TOTAL

compared to other European nations, are burdened with slightly lower taxes than the majority of EU nationals. When we compare December 2017 and December 2016, the difference between the highest and lowest share grew by 1.5 percentage points for EU95 petrol and amounted to 16.5 percentage points. For diesel this difference fell by almost 1 percentage point and amounted to 17.4 percentage points. The lowest tax share in the price of EU95 petrol was recorded in Estonia, and in the price of diesel – in Luxembourg, i.e. a country with the lowest VAT for fuels. A comparison of the total tax burdens on fuels in the EU countries at the end of 2017 is presented in Fig. 42 and 43.

Polish drivers are for sure pleased with the possibility of cheaper refuelling than in most European countries. We should, however, bear in mind the correlations between fuel prices and average earnings in a given country. In such a comparison Poland does not do very well, despite the fact that over the past few years its position shifted towards countries with more developed economies. Just like in previous years, fuel purchases acted like magnets, attracting our western and southern neighbours to fill up their cars at Polish filling stations. At the same time filling stations and border towns benefitted from shopping and other services used during such trips. For Polish drivers it is still worth filling their tanks up to the top at the stations located at the borders and then return from visiting foreign countries with an almost empty tank. Those who drive towards the East, i.e. to non-EU countries, usually have their tanks filled only with the amount of fuel sufficient to reach the nearest Ukrainian, Belarussian or Russian filling station.

FIG. 44 TOTAL MARKET FOR LUBRICATING OILS IN 2017

Source: POPIHN's own study

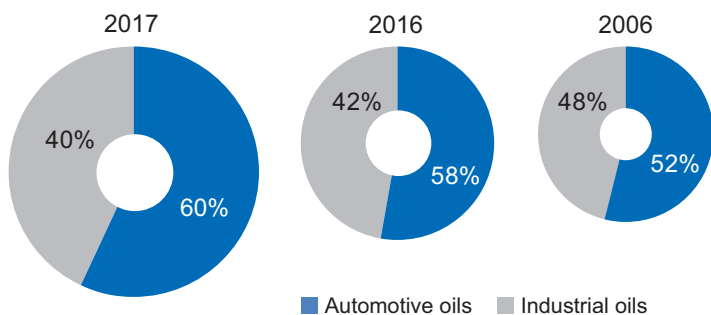
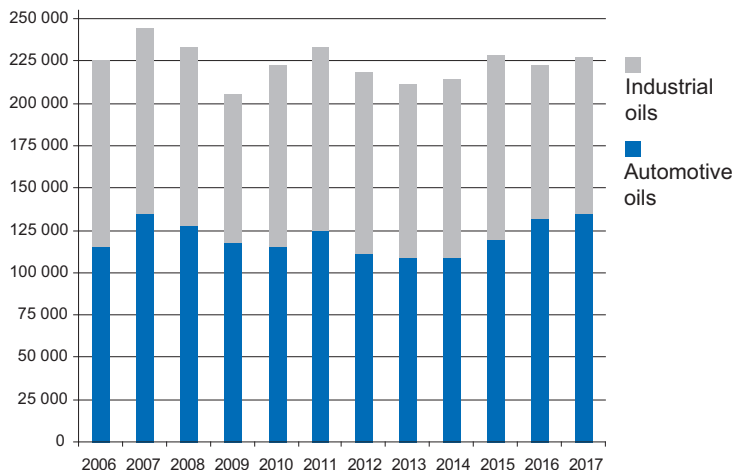
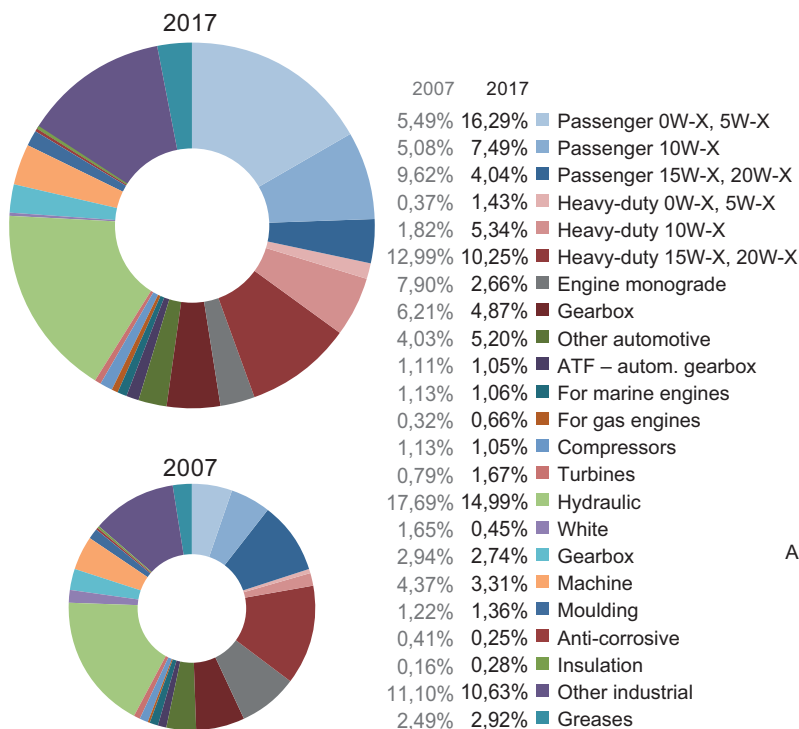


FIG. 45 COMPARISON OF THE STRUCTURE OF THE ENTIRE MARKET FOR LUBRICATING OILS IN 2017 AND 2007

Source: POPIHN's own study



LUBRICATING OILS MARKET

Lubricating oils market overall

In 2017 the Polish market of lubricating oils reached the level of 226,896 tonnes, which is a 1.62% y/y increase.

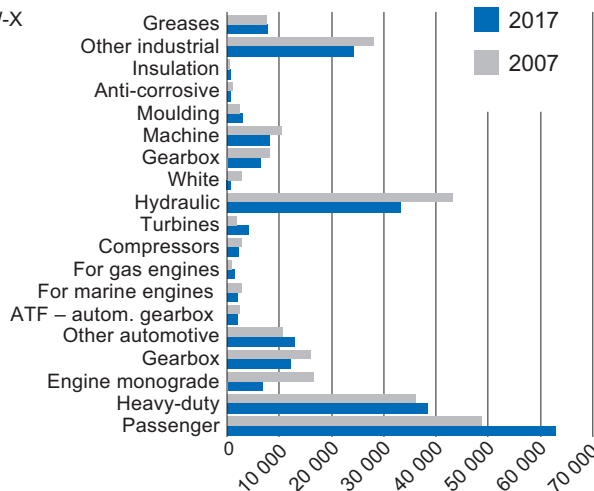
Despite the stabilization of¹ the whole market, in line with the estimates, once again there were several surprises in individual segments. Just as in the previous year, this time too the main surprise was the level of economic growth recorded by the entire Polish economy. POPIHN too did forecast a clear economic rebound after a disappointing 2016, yet its scale exceeded the most optimistic predictions from the previous year².

Another surprise is the way in which this unexpected economic growth translated into the situation in the segments of oils for the automotive industry and oils for industry. While in case of automotive segment the upward trend continued to grow and further sales records were beaten, a major negative surprise was that a downturn in the industry segment in 2016 not only turned out to be not a momentary one, but, in fact, there were further decreases to the extent that the situation slowly started to resemble the crisis year of 2009.

Due to the above circumstances 2017 was another year in which it was not possible to reach the level of sales volumes recorded in the record-making year of 2007, when in Poland over 245,000 tonnes of lubricating oils were sold.

This situation also leads to further changes in the general market structure. In 2017 the automotive segment share continued to grow and has already reached the level of 60%.

Major changes in the overall market structure are noticeable not that much year to year, but rather in a long-term perspective. From this perspective, above all, we can notice certain changes in the engine oils segment – the most significant change on the scale of the whole market is undoubtedly an increase in the share of passenger car engine oils. It is particularly worth pointing out that the share of synthetic oils for passenger cars grew on the scale of the



¹ In the last year's report POPIHN forecast for 2017 was on the level of 230,000 tonnes, so the forecasting error amounted to 1.5%.

² According to the estimates, Poland's GDP in 2017 grew by 4.6% against 2.8% the year before and against 3.5% forecast by POPIHN in the previous year.

whole market from 5.5% in 2007 to 16.29% in 2017. The above means that this group continues to be the biggest one on the market, placing itself ahead of hydraulic oils for industry. Simultaneously, the biggest decline was recorded for mineral oils for passenger cars, heavy-duty vehicles, as well as monograde oils (respectively: from 10 to 4%, from 13 to 10% and from 7.9 to 2.66%).

In comparison with the automotive segment, in the area of industrial oils application we have been observing a multiannual stabilization, typical of mature, fully formed markets, with a dominating share of hydraulic oils (14.99%) and a diversified category of 'other industrial' (10.63%).

Engine oils for the automotive industry

Approximately 47.51% of all lubricating oils sold in Poland are the oils for the automotive industry. Within the automotive segment they account for around 80%. After the records observed two years ago the above segment this time fell slightly back, which was the result of a strong increase recorded in heavy-duty vehicles segment (+7,69%) and a surprising fall (-6,34%) observed in passenger cars sector. Nevertheless, the level of sales volumes of engine oils in Poland, which has been maintained, still has to be considered as unexpectedly high, as in 2017 in Poland 107,791 tonnes of the above mentioned products were sold.

For a long time, engine oils segment was in an apparent downtrend. However, for the past few years we have been observing quite a surprising reversal of this trend. There are numerous reasons pointing to the fact that the segment should continue to shrink: starting with the grey market

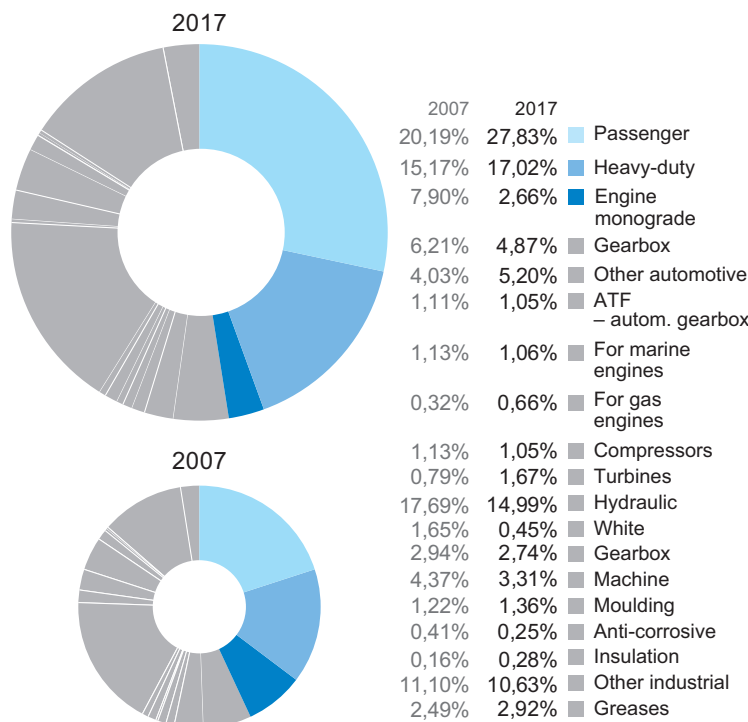
(private and parallel imports of oils from the countries in which there is no excise tax), through a growing share of synthetic oils which enable longer drain intervals, up to a strong decrease in the use of monograde oils.

One of the reasons accounting for the aforementioned growth could be contributed to a combination of such factors as a record-breaking production of cars in Poland (the so-called first filling of the engine), their surprisingly high sales volumes on domestic market, and, last but not least, record-breaking imports of second-hand cars from abroad. Simultaneously, given that, practically, since the moment of Poland joining the EU, i.e. 2004, the number of vehicles calculated per 1000 of the population in Poland is growing in a steady and significant way, it is difficult to consider that the only reason underlying the shift in a downward trend is the growing number of vehicles in Poland. It is, therefore, difficult to talk about a fundamental change. As it was stated in the report two years ago, the programme '500+' might have influenced a growing consumer demand. It might have caused counter-cyclical impact on the automotive sector, influencing a strong increase in consumer credits (500 PLN as a vehicle instalment). Nonetheless, in this case it is also worth pointing out the fact that the trend in engine oils consumption shifted towards the upward one as early as in 2015, i.e. long before the programme '500+' was implemented. Therefore it is not the only factor leading to a record-breaking growth.

At the end of this section it is worth noting that record-breaking sales volumes, mentioned at the beginning, in the entire automotive segment (135,426 tonnes), even higher

FIG. 46 AUTOMOTIVE ENGINE OILS AGAINST THE OVERALL LUBRICATING OILS MARKET IN POLAND

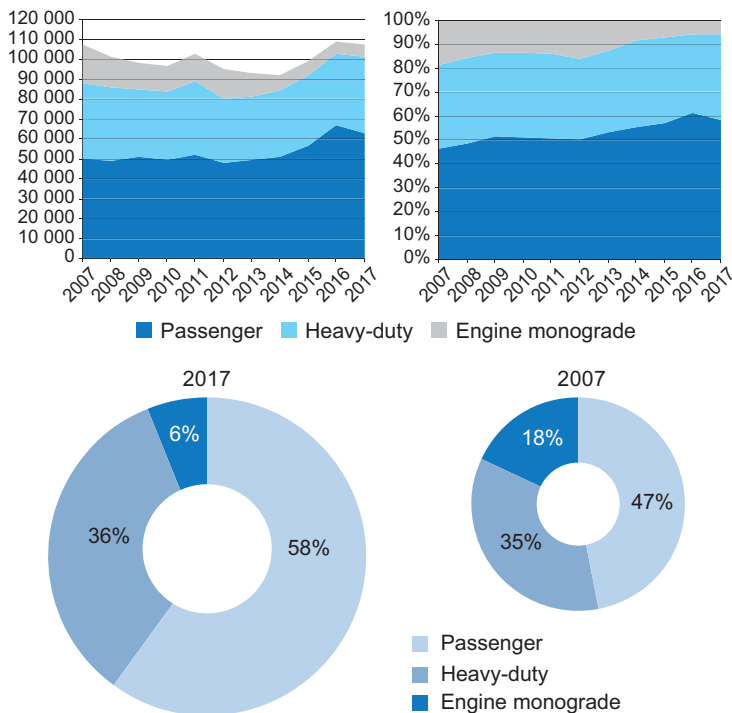
Source: POPIHN's own study



Fot. TANQUID

FIG. 47 CHANGES IN THE STRUCTURE OF THE AUTOMOTIVE ENGINE OILS SEGMENT AGAINST SALES IN ANNUAL TERMS

Source: POPIHN's own study



than in the record-making pre-crisis 2007, were by no means achieved due to engine oils sales. The above growth has been primarily due to the 'other automotive oils' group, the volume of which has doubled since last year, reaching 11,800 tonnes. Products used in forestry and in vehicle and machinery shock absorbers have had a significant impact on the increase observed in this diversified group of oils.

Within the automotive segment throughout the previous year there was a particularly notable disparity between the sales of engine oils for passenger cars (-6,34%) and heavy-duty engine oils (+7,69%).

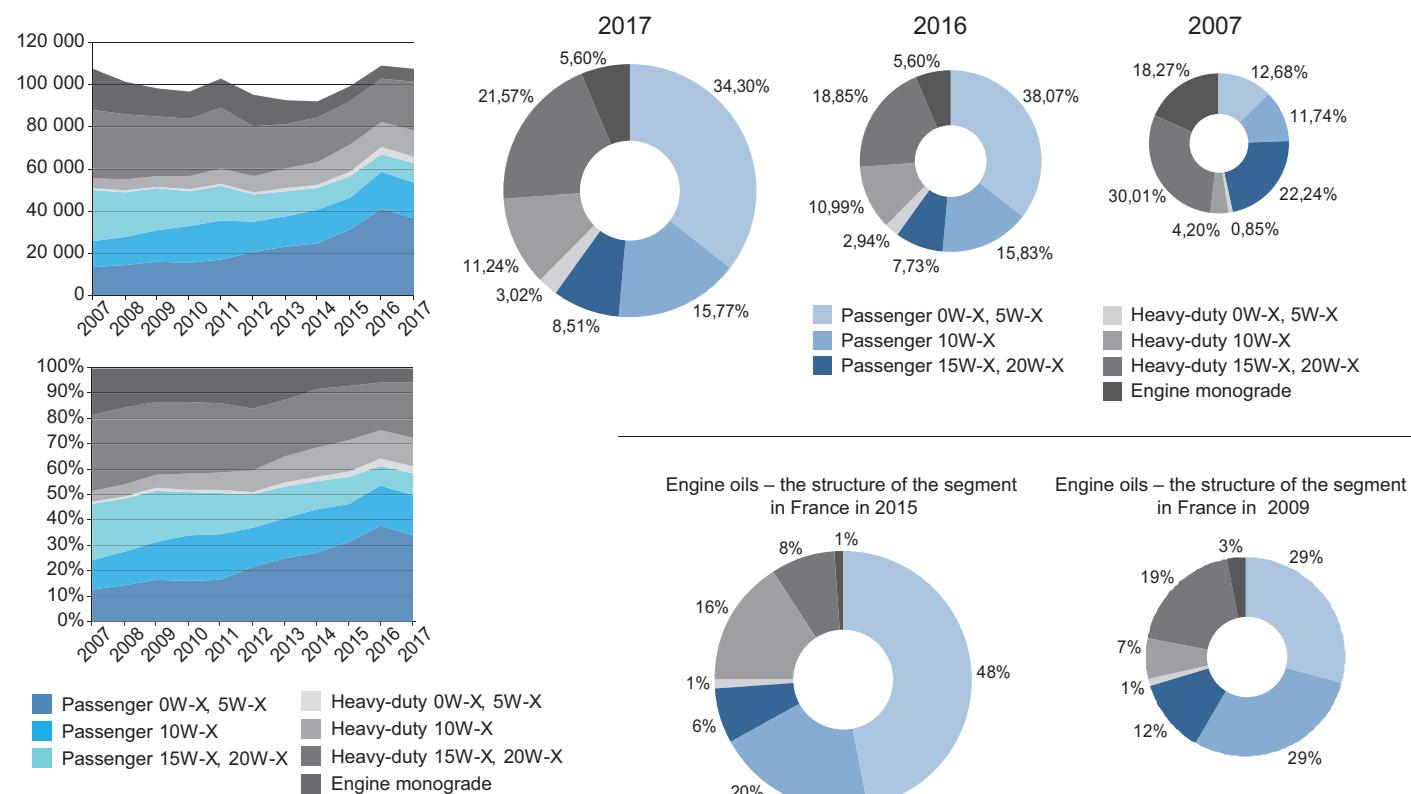
Despite this fact, the share of passenger car motor oils equalled 58%, i.e. 11 percentage points more than in 2007.

To date, the above growth has taken place mostly at the expense of shrinking the group of monograde oils (from 18 to 6 percentage points). On the other hand, the share of oils for heavy-duty vehicles has been quite stable for the past 10 years, amounting to approximately 34-36%.

Similar trends are being observed on the French market, significantly more advanced in terms of car fleet, which clearly shows that the trend observed in Poland will continue in the coming years, alongside the modernisation of the car fleet. What can it lead to? In case of France, the share of synthetic oils for passenger cars in 2015 reached almost 1/2 of the whole engine oils segment, whereas oils for passenger cars already constitute 3/4 of the segment, while monograde oils are practically disappearing from that market.

FIG. 48 CHANGES IN THE AUTOMOTIVE ENGINE OILS SEGMENT AND COMPARISON OF STRUCTURES IN POLAND IN 2017, 2016 AND 2007; COMPARED AGAINST THE STRUCTURE OF THE SEGMENT IN FRANCE

Source: POPIHN's own study



Passenger cars motor oils (PCMO)

After two consecutive years of heavy growth this segment has seen a decrease (by 6.34% y/y), despite the continuing excellent economic situation in automotive industry. Consequently, this segment's share in the overall market of lubricating oils grew from 20.19% (50,275 tonnes) in 2007 to 27.83 in 2017. The achieved level of 63,141 tonnes also means that it has currently become the biggest segment of the lubricating oils market in Poland.

Such results were achieved mainly due to sales in one group, namely synthetic oils lowest in viscosity grade, which this time fell by over 11% to the level of 36,967 tonnes. It should be underlined that for the first time POPIHN's monitoring has registered a fall in the sales volumes in this group.

Previously the sales volume of synthetic oils had been continuously growing since POPIHN's monitoring activities were initiated, i.e. in 2007, starting from the level of 13,662 tonnes. The highest growth in sales of synthetic oils for passenger cars observed so far, namely by over 24% (from 25,330 to over 31,543 tonnes), was in 2015. In 2016 the growth equalled 17,88%, so the dynamics slowed down, indicating the possibility of reversing the growth trend.

At the same time, while observing the evolution in countries more developed than Poland, we can see, as for example in the case of France, that further modernisation of the car fleet entails a soon return of an upward trend in this segment.

Heavy-duty engine oils (HDEO)

In 2017 sales volume of heavy-duty engine oils in Poland amounted to 38,613 tonnes, which is a pretty strong increase (by 7.69 % y/y), as well as establishing a record sales volume. Once again the result in this segment is in line with Poland's GDP and continues to show that, in terms of market fluctuations, it is most probably the best segment of the oil market to reflect the economic situation, thus this segment's evolution best reflects the condition of the overall economy.

In this segment the sales have been growing (in terms of tonnage) since 2013 and only in 2016 there was a temporary decrease. One of the reasons accounting for the decline can be a downward trend in investment activity, especially in infrastructure investments, financed from the EU funds, which in previous years generated quite significant demand for using heavy-duty construction equipment. Alongside relaunching investment projects in Poland this segment again shows strong upward trends.

The share of mineral engine oils (15W, 20W) in heavy-duty vehicles segment, which, for the first time in history, fell below 60% in 2015, this time increased, again reaching the level of 60% share.

FIG. 49 PASSENGER CARS MOTOR OILS WITH REFERENCE TO VISCOSITY CATEGORIES (excluding monograde oils)

Source: POPIHN's own study

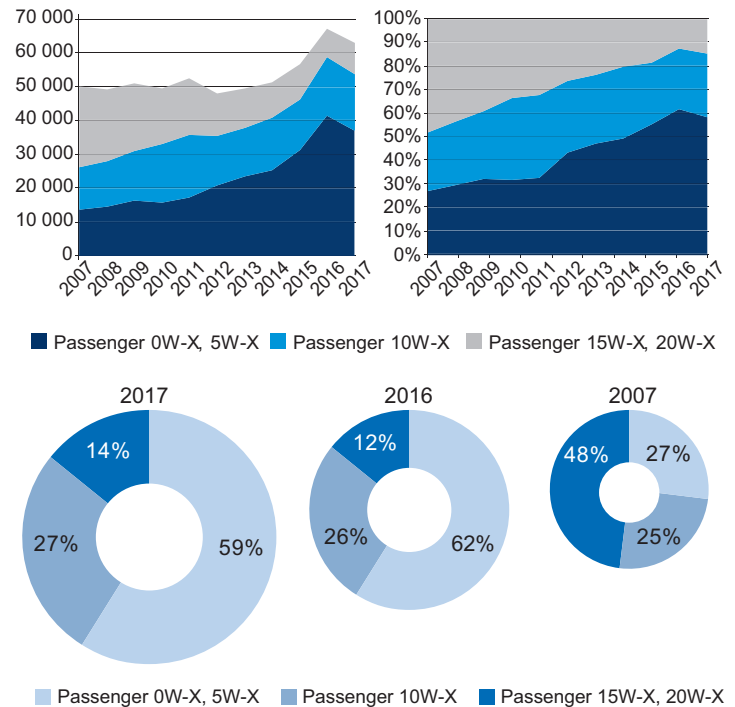


FIG. 50 HEAVY-DUTY ENGINE OILS WITH REFERENCE TO VISCOSITY CATEGORIES (excluding monograde oils)

Source: POPIHN's own study

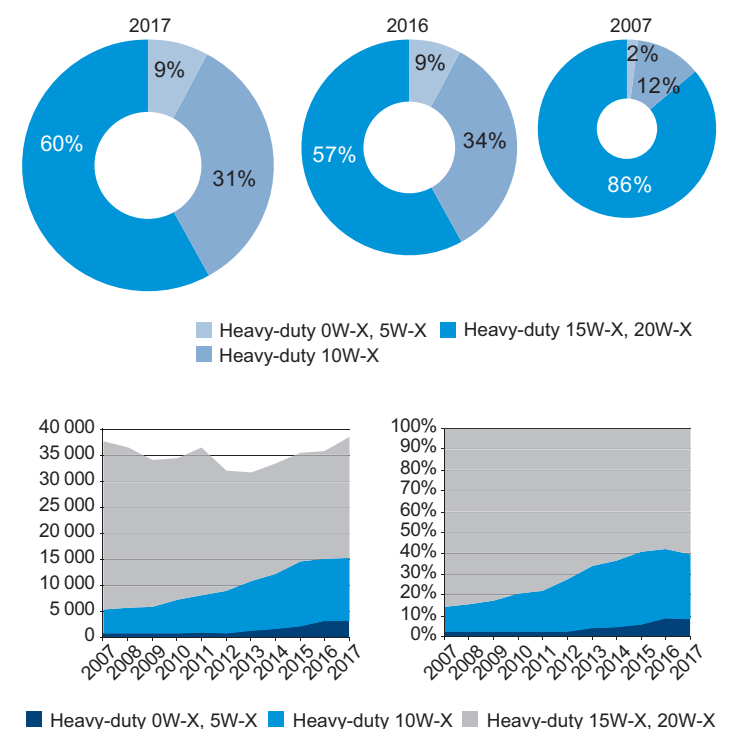
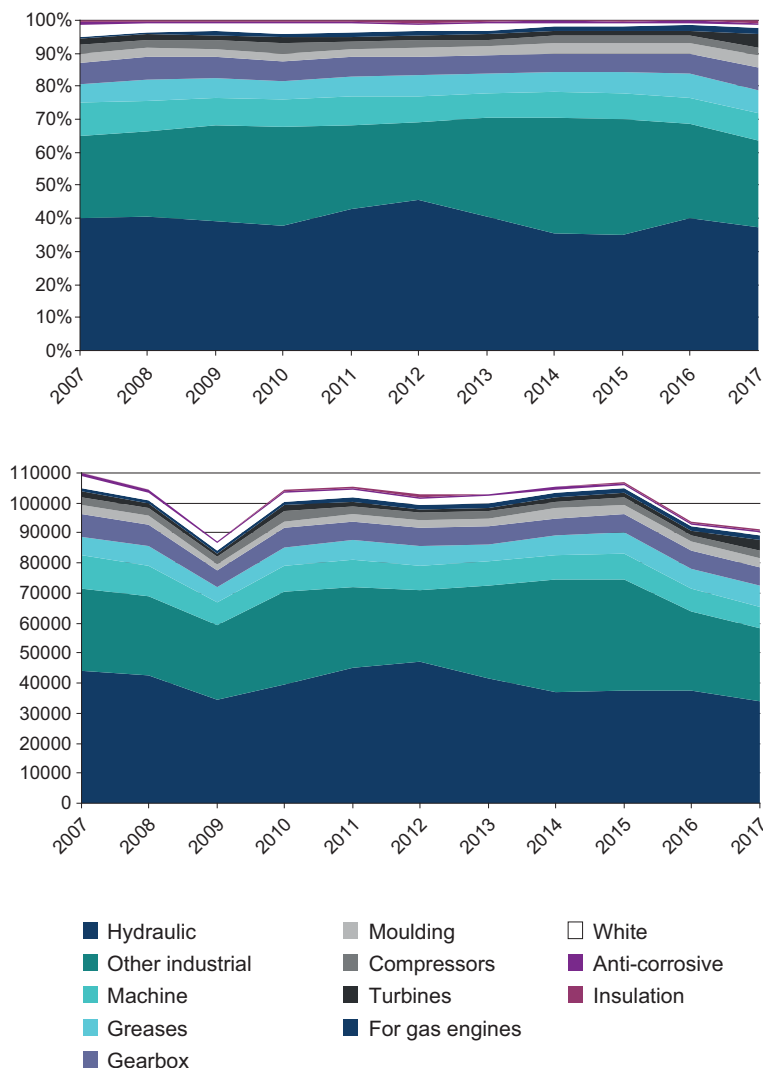


FIG. 51 CHANGES IN THE INDUSTRIAL OILS SEGMENT – EVOLUTION OF STRUCTURE

Source: POPIHN's own study



Lubricants for industry

2017 was perhaps most disappointing for the segment of oils for industry since POPIHN started its monitoring activities. After the slump in 2016, caused by surprisingly low economic development in the whole country (including investment decline), it was hoped that 2017 would witness a faster recovery, comparable to the one from 2009, in which we suffered a far more profound crisis. The above hopes were also fuelled by the information on a far stronger than expected rebound in the economy of the entire country, strictly related to the sales volumes of oils throughout the whole period in which POPIHN's monitoring activities were carried out.

Nonetheless, the industrial segment shrank again, this time by 2.21%, reaching the level of 91,470 tonnes. To compare, the collapse of the market observed in 2009, the most profound until then, amounted to the level of 87,348 tonnes, while in 2005 (the best to have been recorded) the segment sold over 108,846 tonnes.

For the first time ever we witnessed a situation in which the sales of industrial oils did not reflect the evolution of Poland's GDP. Last year's decrease was already disproportionately strong when compared to this indicator's dynamics being significantly weaker. Last year's POPIHN report stated:

In case of this segment the situation seems to be simpler as it follows the fluctuations of the GDP in a clear way, including the '3% GDP rule'. This, however, does not thoroughly explain such a deep slump, especially after behaving in a stable way in 2012-2013, when the GDP fell significantly, reaching the level below 2%. It seems that the psychological factor might have appeared again, in the form of business operators' concerns related to, for example, a 5% decrease in investments or a threat of downgrading Poland's rating.

The most likely causes of a prolonged slump in this segment in 2017 continue to be the following: waiting for a strong rebound in investments and, generally speaking, quite conservative approaches of business operators, who, despite their sufficient liquidity, do not take investment decisions, even though interest rates are kept at record low levels, which significantly increases the availability of financing by means of bank credits.

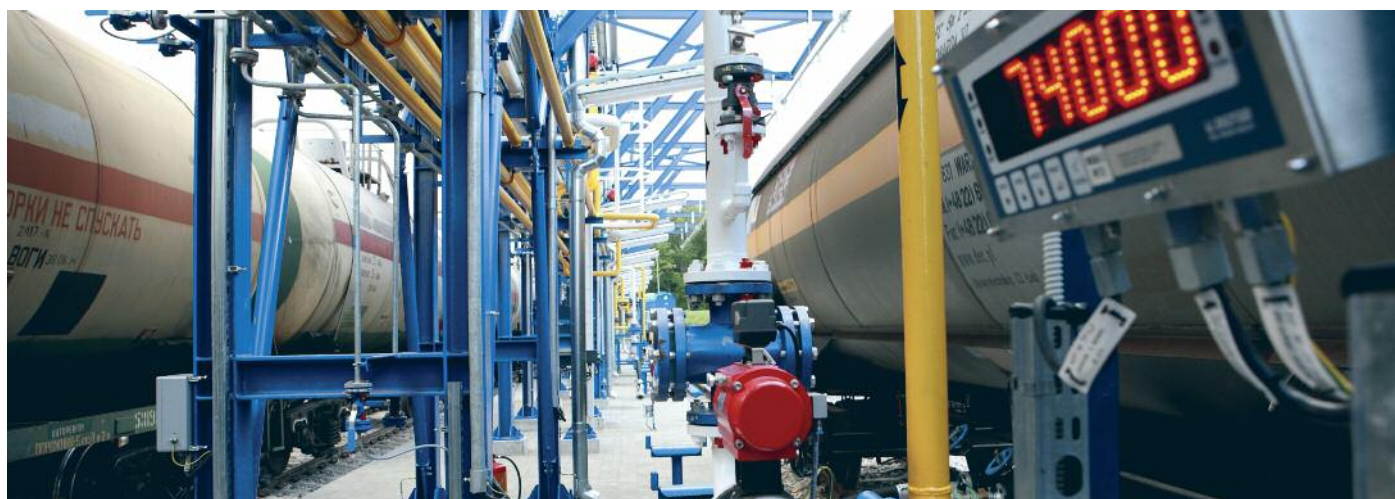
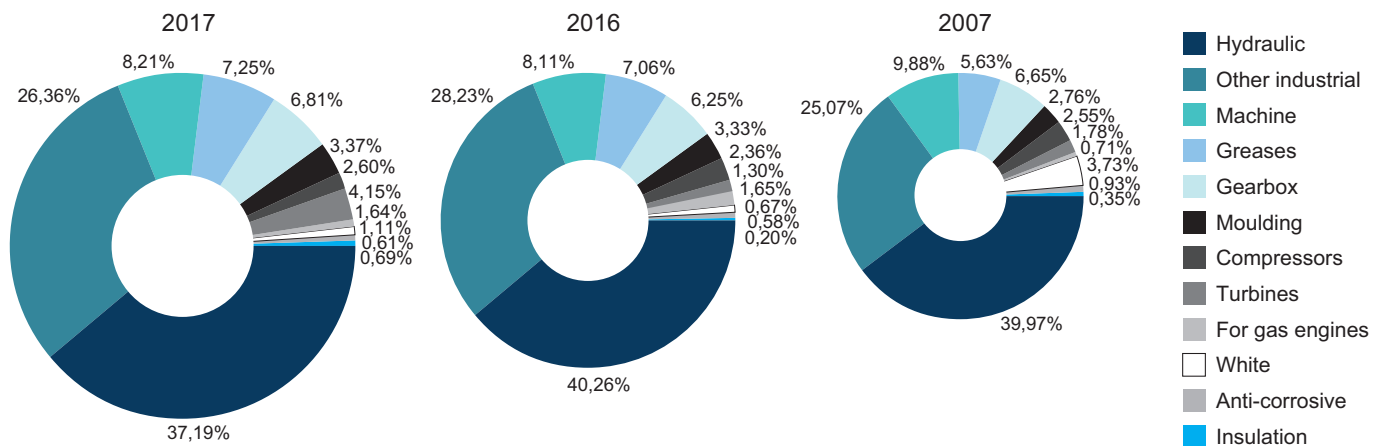


FIG. 52 INDUSTRIAL LUBRICANTS SEGMENT IN 2017: STRUCTURE WITH REFERENCE TO APPLICATION

Source: POPIHN's own study



In the last nine to ten years, with regard to the structure of industrial oil sales, there have been no remarkable and steady changes comparable with those which took place in the case of motor oils in the automotive sector. At the same time currently observed, for the second time over the past 10 years, strong weakening in sales in this segment does not translate into dramatic changes within individual groups: the market is shrinking evenly.

The Polish industry still predominantly uses hydraulic oils (a 37.19% share). At the same time, their share in the overall market share decreased in the last few years, with the biggest decline recorded in 2013-2014, when this group shrank on average by 10%, which, in terms of volume, amounted to a decline of over 9,000 tonnes. In 2017 this share also slightly decreased, just like in the case of the second biggest group of industrial oils, namely 'other industrial oils'; this group's share in 2017 decreased by further 2 percentage points, amounting to 26.36%.

This category comprises widely diverse products, difficult to classify under other categories. Increasingly, these are highly specialised products designed for specific devices, as well as machine oils.

Both automotive and industrial segments do not reflect any considerable effects, sometimes witnessed by the economy, at times rather suddenly, of market fluctuations upon their structures in a quarterly perspective.

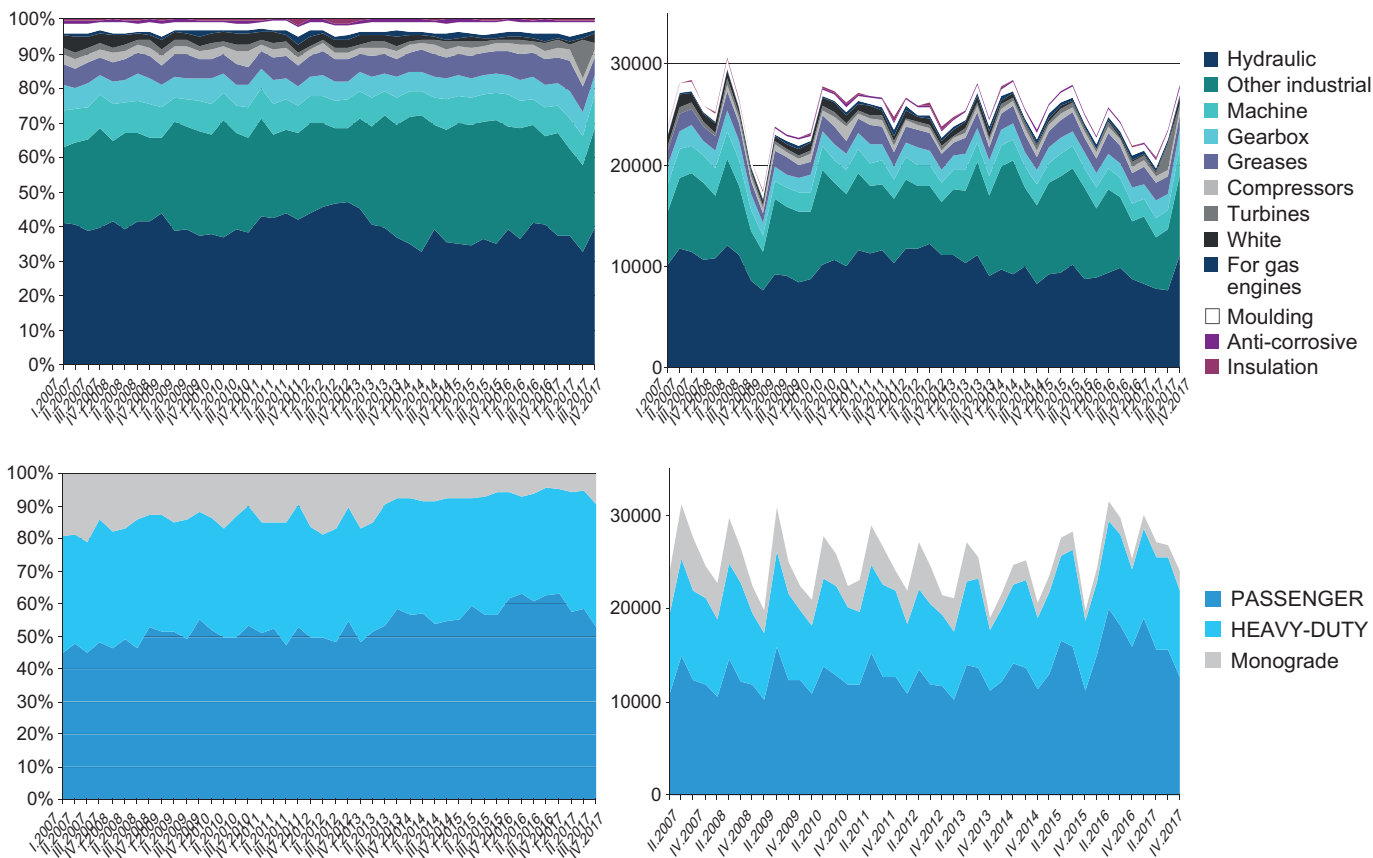
However, there are visible seasonal trends in consumption within the automotive segment, caused mainly by typical



after-winter service in repair garages, which often includes a periodic change of oil. It is, however, worth noting that fluctuations related to seasonal trends are not reflected in the segment's structure, which results from the fact that both oils in passenger vehicles and heavy-duty ones are changed, depending on weather conditions, at the same time.

FIG. 53 STRUCTURAL CHANGES IN THE INDUSTRIAL OILS SEGMENT IN TERMS OF QUARTERLY SALES

Source: POPIHN's own study



EXPLANATION OF TERMS

LUBRICATING OILS MARKET OVERALL Starting with the report for 2015, 'overall market of lubricating oils' is divided into only 2 segments: automotive and industrial. Unlike in previous reports, the abovementioned amount will not include the third from the so far presented categories, i.e. 'other not classified elsewhere' category. It results from the fact that a vital and most probably strongly growing part of products reported within this diversified group cannot be classified as 'lubricating oils' in the common understanding and/or technical meaning of this term. At the same time, in view of a significant growth of this group in recent years, its impact on the picture of the entire market would be too noticeable.

PASSENGER CAR MOTOR OILS (PCMO) – these are engine oils for passenger cars, motorcycles, and auxiliary vehicles and other equipment. This category does not include monograde oils (monograde).

HEAVY-DUTY ENGINE OILS (HDEO) – these are engine oils for heavy-duty vehicles and heavy-duty working machinery. This category does not include monograde oils (monograde).

OTHER OILS EXCLUDING GAS ENGINES – these are all other types of oils commonly used in the automotive industry and the ones not used in industry. The main groups of products in this category are: oils for marine engines, single season (monograde) engine oils, gear oils, automatic transmission fluids (ATF) and all other lubricating products for the automotive industry not elsewhere classified.

MINERAL OILS – in accordance with CN (Common Nomenclature), these are lubricating products in which the content by weight of mineral oil, or of oils obtained from bituminous minerals (but not as a basic constituent) is greater than or equal to 70%. In the automotive segment, most of such oils are used in the production of older type oils characterised by higher viscosities (mainly 15W and 20W oil groups). These products are obtained mainly from traditional base oils, obtained by refining crude oil, mainly base groups I, II and partly III.

NON-MINERAL OILS – these are other lubricating oils, which are defined under excise rules as lubricating preparations (including cooling and lubricating fluids, bolt and nut loosening preparations, rust and corrosion prevention preparations, lubricant-based moulding oils) with the exclusion of preparations containing, as basic constituents, 70% or more by weight of petroleum oils or oils obtained from bituminous minerals. In practice, it mainly concerns oils commonly referred to as semi-synthetic (e.g. 10W SAE viscosity class engine oils) and synthetic oils (e.g. 0W and 5W SAE viscosity class engine oils). These products are mainly derived from synthetic bases (poly-alpha-olefins or PAO) or also from mineral base oils of the highest quality (Group III in API classification).

SAE (SOCIETY OF AUTOMOTIVE ENGINEERS)

CLASSIFICATION - SAE classification divides oils based on operating parameters and distinguishes 11 classes of viscosity:

– 6 winter classes marked with a number and the letter W: 0W, 5W, 10W, 15W, 20W, 25W;

– 5 summer classes: 20, 30, 40, 50, 60.

For the purpose of this report, oils were divided into three groups (0W/5W, 10W and 15/20W) – a simplification which allows the structure of the market to be shown in terms of viscosity of lubricating oils used.

MONOGRADE OILS – these are older-type oils intended for use in certain, relatively narrow, temperature ranges.

This distinguishes them from more modern multigrade (multi-season) oils which can be used in more varied temperatures, making them suitable for use, for example, throughout the year. For the purpose of this report, monograde oils were treated as a separate group in relation to multigrade oils (groups 0W/5W,

10W and 15/20W), as well as a separate group in terms of application (relative to groups of oils for passenger and goods vehicles), even though they are used within those groups.

OTHER INDUSTRIAL OILS Within this group we can mention its main components, namely machine oils (used mainly to grease loaded elements of working machinery and industrial devices such as bearings, guides, gears etc.) and oils for chainsaws.

OILS FOR TWO-STROKE ENGINES In the POPiHN's methodology they are not classified as a separate category, but they are reported within two categories: 'other excluding gas engines' and 'monograde'.

MACROECONOMIC DATA – used in this report, unless otherwise specified, are based on information available at the website of the Central Statistical Office.

ABSOLUTE VALUES – absolute values given in this report include sales figures from six members of POPiHN:

BP/Castrol, Fuchs, LotosOil, OrlenOil, Shell, and Total and were collected by the Organisation as part of the ongoing monitoring of the lubricating oils market. Starting from 2016, the number of reporting entities decreased from 7 to 6 due to Fuchs taking over Statoil (currently Circle K). All abovementioned companies were and are POPiHN members, therefore the market share of entities associated in POPiHN in the overall market in Poland has not changed, and reported market data have been fully continuous and adequate.

Starting from 2012, market data obtained from monitoring activities have been adjusted upwards, as a statistical correction, by 25% (for the automotive segment) and by 15% (for the industrial and other oils segment) to take into account the rest of the market which is outside the companies covered by monitoring. The Organisation's view is that this estimate reflects the current market share of companies which are not affiliated to POPiHN.

It should be noted that for the period 2006-2011, the statistical adjustment of data was by 10%, equally for both segments of the market. The changes introduced in 2012 arise from a review of the estimate of the market volume 'outside POPiHN'.

DOUBLE REPORTING The methodology used for data collection and processing eliminates the problem of the so-called double reporting. POPiHN member companies only report sales 'outside' POPiHN (directly to the domestic market and to small independent producers, whose total market share has been estimated at around 10%), and therefore volume sales among POPiHN member companies are not reported.

ESTIMATED DATA For legal reasons related to European regulations on sensitive data, at the time of publication of this report, POPiHN did not possess data for the fourth quarter of 2017, as it is aggregated after over three months. For this reason, the data for the fourth quarter presented in this report were based on estimates prepared by the POPiHN office with the participation of member firms and on analyses of historical data and current market trends.

IMPORTS AND EXPORTS For the purpose of this report, in relation to lubricating oils, the above terms include both the Intra-Community Acquisition of Goods in the case of 'imports', and the Intra-Community Supply of Goods in the case of 'exports'.



THE LOGISTICS MARKET FOR CRUDE OIL AND LIQUID FUELS

Feedstock supply pipeline network

The PERN S.A. crude oil pipeline network consists of three sections: Eastern, Western and Pomeranian. The Eastern Section of the 'Przyjaźń' pipeline links the Depot in Adamowo, near the border with Belarus, with the Crude Oil Depot in Miszewko Strzałkowskie near Płock. The Eastern Section transports oil through the Miszewko Strzałkowskie Depot to PKN ORLEN SA and indirectly to other clients of the company: Grupa Lotos SA, German refineries and traders who transit Russian crude via Gdańsk. The Western Section connects the Miszewko Strzałkowskie Depot to German refineries: TRM and PCK. The Pomeranian Section connects the Miszewko Strzałkowskie Depot with a Depot in Gdańsk. Russian crude flows along this route to a Gdańsk refinery, which belongs to Grupa LOTOS SA and for export via NAFTOPORT. The Pomeranian Section is reversible, allowing pumping in both directions (the reverse direction from Gdańsk to Płock is used to pump crude oil shipped by sea, including crude oil other than Russian, to PKN Orlen and, if it is necessary, to German refineries).

Eastern Section

The Eastern Section of the 'Przyjaźń' pipeline links the Adamowo Depot with the one in Miszewko Strzałkowskie, using three conduits; route length: 233 km; nominal capacity after finishing the construction of the III conduit of the pipeline is: 56 million tonnes of crude oil per year.

Western Section

The Western Section of the main pipeline feeds crude to the German refineries TRM and PCK. This section of the 'Przyjaźń' pipeline links the Miszewko Strzałkowskie Depot with the PCK refinery in Schwedt and the MVL crude oil depot in Heinersdorf, using two conduits of pipelines: the length of this route is 416 km and its nominal capacity is 27 million tonnes of crude oil per year.

In the section between the Miszewko Strzałkowskie and the Żółwieniec depots, one conduit works in reversible mode, allowing crude oil to be pumped in both directions: to Germany and Płock (from PMRiP Góra). PKN Orlen SA owns the section connecting Żółwieniec with the Underground Oil and Fuel Storage Facility at Góra, owned by Inowrocławskie Kopalnie Soli (IKS Solino SA).

The Western Section links the PERN SA pipeline network with PGNiG SA's storage depots located in the towns of: Wierzbno and Dębno. The Company transports Polish crude extracted in the area of these two locations.

Pomeranian Section

The section works in reversible mode which enables pumping of crude in both directions, from and to Gdańsk. In conjunction with NAFTOPORT's infrastructure, this arrangement facilitates the export of crude oil transported over the 'Przyjaźń' pipeline, as well as the import of feedstock by sea routes and its further pumping through the pipeline system owned by the company. This section



connects the Miszewko Strzałkowskie Depot with the Gdańsk Depot through a single pipe. The route length equals 235 km, while a nominal capacity is 27 million tonnes or 30 million tonnes of crude oil per year (respectively, in the northerly and southerly directions).

Product Pipeline

PERN S.A. has a network of product pipelines for transporting petroleum products (petrol, diesel and fuel oil) in three directions:

Płock – Nowa Wieś Wielka – Rejowiec

Length: approx. 208 km, nominal capacity: 2.1 million tonnes and 1.4 million tonnes of fuel per year (respectively, Płock – Nowa Wielka Wieś and Nowa Wielka Wieś – Rejowiec).

Płock – Mościska – Emilianów

Length: approx. 163 km, nominal capacity: 1.15 million tonnes of fuel per year.

Płock – Koluszki – Boronów

Length: approx. 265 km, nominal capacity: 3.8 million tonnes and 1 million tonnes of fuel per year (respectively, Płock – Koluszki and Koluszki – Boronów).

Crude oil storage tanks

Crude oil storage tanks are an integral part of the PERN S.A. pipeline network. The company has four crude oil storage depots (including Oil Terminal in Gdańsk):

- ✓ Adamowo Depot (15 storage tanks of approx. 770,000 m³ total capacity);
- ✓ Miszewko Strzałkowskie Depot (29 storage tanks of approx. 1,464,000 m³ total capacity);
- ✓ Gdańsk Depot (18 storage tanks of approx. 900,000 m³ total capacity);
- ✓ Oil Terminal in Gdańsk (6 storage tanks of approx. 375,000 m³ total capacity)

Feedstock storage depots act as stabilisers in the flow of crude oil. In addition, the Company utilises storage capacity to provide a crude oil storage service.

The Company has tanks with capacities of 30,000, 32,000, 50,000, 62,500 and 100,000 m³. The 100,000 m³ capacity tanks are the largest of their kind in Poland.

Oil Terminal in Gdańsk

In 2016 PERN SA completed the Oil Terminal for loading and storing crude oil in the Gdańsk Port. The Oil Terminal has an important role in the energy security of Poland and the region. It has been included on the list of EU Projects of Common Interest (PCI). The Terminal's excellent location is an additional value of the investment: the neighbouring presence of Naftoport, the possibility of constructing a loading pier, the proximity of transmission, railway and road infrastructure.

Crude oil tanks completed in 2016 are just the first phase of the investment. In 2017 PERN S.A. started construction works on the second phase of the Terminal, increasing the depot's storage and trade capacity.

Liquid fuels storage logistics

PERN S.A., being a leader in fuel logistics sector in Poland, has very modern infrastructure which meets all legal requirements for fuel depots, including the ones related to the environment, and, most importantly, is satisfying the growing requirements of our clients. The Company owns a network of fuel depots, the total capacity of which is over 1.8 m. m³. PERN stores petrol, diesel, light fuel oil, biofuels and aviation fuel intended for supplying the current market as well as maintaining the intervention fuel stocks. Storage tanks at the Company's disposal can store up to 32,000 m³.

The five largest depots, namely the ones in: Koluszki, Nowa Wieś Wielka, Boronów, Rejowiec, and Emilianów are





connected by long-distance fuel pipelines with the refinery in Płock. The depots located at the eastern border of the country have terminals for handling fuel, gas and other petroleum products. The Fuel Depot in Dębogórze allows diesel to be exported and imported by sea through the Port of Gdynia.

Besides, the Company owns accredited petroleum product laboratories, which, apart from comprehensive supervision of the quality of fuel held and stored in PERN's depots, also provide services to third parties. PERN's laboratories use the most modern equipment meeting all the requirements and standards, which ensure the best possible tools for conducting quality controls of fuels in the course of trade.

PERN is constantly looking for new solutions in order to meet customers' expectations. With a view to maintaining customer trust and market confidence, the Company has implemented, maintains and improves the Integrated Management System, compliant with the standards PN-EN ISO 9001, PN-EN ISO 14001:2005 and PN-N 18001:2004.

Capacity utilisation

PERN has about a 50% share of liquid fuels storage market. Apart from providing services to fuel market operators, the Company plays an important role in the country's energy security. PERN's tanks hold intervention stocks, including the ones for the state's Material Reserves Agency. 2016 was another year of increases in fuel consumption, which directly translated into the volume of intervention stock stored in 2017, thus increasing PERN's capacity utilisation practically to the limit values.

The legislative changes implemented in 2016 and 2017 (the so-called 'fuel package') influenced the spike in fuel trade, which in 2018 will again result in an even greater need for storage capacity, also in PERN.

In view of the above, PERN has launched extensive investment programme which comprises constructing new storage capacities. In the coming years the Company is planning to build approximately 300,000 m³ of new capacities, out of which about 120,000 m³ are to be constructed as early as in 2018.

Loading from PERN's Fuel Depots

In 2017 the total volume of loadings in PERN's Fuel Depots reached almost 13 m. m³, thus being another year of intensified utilisation of the PERN infrastructure, whereas the loadings were record-breaking in the Company's history.

In 2016 and 2017 a number of provisions were introduced, aiming at tightening the so-called 'grey' market in fuel trade. Since the entry into force of new regulations PERN has noted a substantial growth in fuel trade, and each subsequent year brings significantly more loadings from depots. Overall in 2017 the increase in loadings to road tankers amounted to over 20 per cent when compared to 2016.

PERN is launching a series of actions to modernise the infrastructure in order to adjust it to the intensification of loadings from depots.

Blending with biofuels

The biofuels blending service has a key role for business operators and is aimed at businesses bound with an obligation to achieve the National Biofuels Target (NBT), i.e. a minimum % share of biofuels and other renewable fuels in the total amount of fuel introduced into the market.

PERN creates conditions that allow to achieve the National Biofuels Target by offering the service of blending esters with diesel, as well as bioethanol with petrol.

From the start of 2017, entered into force the provisions of the amended act Energy Law, which introduce the obligation to achieve the National Biofuels Target through biofuels contained in liquid fuels (the so-called obligatory blending). PERN, in order to respond to market needs and adjusting to the new regulations, expanded in 2017 the possibility of adding biofuels to diesel by launching a dosing installation in the Małaszewicze Fuel Depot. In 2018 it is planning to launch such installations in Dębogórze and Narewka Fuel Depots.

Stock ticket reserves

Stock ticket reserves service consists of creating and maintaining mandatory oil stocks on behalf of obliged entities. The clients using this service fulfil the obligation to maintain mandatory stocks without involving their own fuels (Article 11 of the Law of 16 February 2007 on stocks of crude oil, petroleum products and natural gas, the principles of proceeding in circumstances of a threat to the fuel security of the State and disruption on the petroleum market, Journal of Laws of the Republic of Poland of 2014, item 1695).

The service is also aimed at LPG importers, who can maintain LPG stocks alternatively in unleaded petrol.

The service is expanding rapidly and in 2017 the volume offered by PERN remained at a high level.



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