

Support or hindrance to action? Spirit fuel blends in the Polish oil industry in the interwar period

Pawel Grata

Abstract: The situation of the Polish oil industry after independence was difficult. Cut off from pre-war markets, the weakness of the internal market and increasing competition in external markets resulted in low profitability and a successive decline in production volumes. Competition also became a new threat from the state-backed distillery industry, which was pushing the concept of marketing fuel blends containing spirits. Their entry into the market, despite the objections of oil companies, meant that some gasoline had to be replaced with spirits and their ability to sell on the domestic market was limited. The negative effects of this were consistently raised by oil industry representatives. It wasn't until an improvement in the economy in the second half of the 1930s that a gradual change in the perception of spirit propelled blends appeared. Under conditions of growing domestic demand with relatively constant production volumes, a significant reduction in fuel exports became possible, and spirits were able to become a desirable additive to diesel blends, as evidenced by the increase in their purchases by oil companies.

Keywords: Second Republic, petroleum industry, spirit propellants, distillery industry

Introduction

The interwar period was a period of stagnation for Poland's oil industry. Among the factors contributing to this were difficult mining conditions, being cut off from former markets, the weakness of the domestic market and, caused by the discovery of new deposits, increasing competition on world markets. Another dangerous development was to become the competition that emerged from the distillery industry. The introduction of spirit fuel blends into the market under heavy pressure from state authorities meant that some gasoline had to be replaced with spirit, thus limiting the ability to sell petroleum products on the domestic market.

It is worth taking a look at this relatively little-known episode in the history of Poland's oil industry and reflecting on the role of spirit fuel blends in the functioning of the oil market in the specific conditions of the 1930s, especially in the markedly improving economy in the second half. Indeed, along with it came a gradual increase in fuel sales, which, with the clearly visible phenomenon of

depletion of domestic extraction capacity, over time cast doubt on the initially unequivocally negative assessment from the point of view of the oil industry of the economic importance of the introduction of spirit fuel blends.

Problems of the Oil Industry in the Second Republic of Poland

The restoration of independence brought serious difficulties for many industries developing on Polish soil at the turn of the 20th century. The loss of the previously extensive markets of the partitioned countries meant that the size of the business had to be adapted to the decidedly smaller demand capacity of the domestic economy than before the war, combined with the export difficulties that persisted for most of the interwar period. In a situation of previous development of manufacturing potential significantly beyond the absorption capacity of Polish lands, the new realities brought a structural mismatch between the stock of individual industries and the actual capacity of their utilisation.

An example of this situation was the fate of the oil industry, a symbol of Galicia's industrialisation, which had to limit its sales opportunities to an internal market incomparably smaller than the former Austro-Hungarian monarchy. Under such conditions, it was difficult to expect significant exploration investments from foreign owners as a rule, who held about 75% of the capital involved in oil production and refining, which in turn meant an apparent stagnation in the operation of the industry (Franaszek 2018: 38-39).

Confirmation of the fundamental change in the position of the oil industry was to be the dimensions of production and sales of petroleum products. While more than 2 million tonnes of oil were produced in Galicia in 1909, the best year in this regard between the wars was 1925, with production of 812,000 tonnes. Later, it was already gradually declining, stabilising in the second half of the 1930s at around 500,000 tonnes. Significantly, gasoline production increased during the period under review. In 1928, 97,000 tonnes were obtained, while ten years later it was 141,000 tonnes. Sales of petrol (including gasoline) rose from about 40,000 tonnes in the mid-1920s to about 100,000 tonnes at the turn of the decade, and in the 1930s were about 80-90,000 tonnes, to exceed 140,000 tonnes just before the war (*Maty...* 1939: 129; Morawski 2016: 40).

An important part of the problem in the operation of the oil industry was the lack of coordination of the activities of the numerous companies in the market, a source of disruption in the trade of oil and petroleum products. Measures taken by state authorities in this regard since the 1920s did not bear fruit for a long time, and only in late 1932 did the Ministry of Industry and Trade decide to set up a forced organisation to bring together large refineries and organise exports abroad, which were much less profitable than trading on the domestic market. The resulting Polish Oil Exports monopolised Polish exports from the spring of 1933, becoming a guarantor of the industry's stability (Kawalla 2015: 258-270).

The origins of spirit fuel blends in Poland

There were two main considerations behind the idea of using diesel blends. The first was the declining demand for the products of the alcoholic beverage industry, resulting from a significant decline in consumption (Missala 1939: 385-387)⁴. The second was becoming unfavourable for the trade balance of countries without their own oil reserves and the increase in demand for liquid fuels, which was continuing with the development of motorisation. In the face of the theories already popular in the early 20th century about the depletion of the world's oil reserves, the combination of these two coinciding phenomena brought the development of research into the possibilities of using spirits in propulsion blends.

Their breakthrough came in the 1920s with the development of technology for obtaining dehydrated spirit using the Ricard-Allenet system. This, along with strong pressure from the agricultural lobby, translated into the creation of solutions to force importers of petroleum products to use diesel blends during the Great Depression. They were forced by the largest spirit producers in Europe at the time, namely France and Germany, and were followed in time by other countries such as Hungary, Italy and Spain (Grabiański 1931: 14).

The rapid growth of spirits sales for propulsion purposes in the countries applying blending compulsion also worked on the imagination of Polish producers, suffering heavily from the loss of pre-war production capacity. Faced with a reduction in production from about 2.5-2.6 million hectolitres before the war to a few hundred thousand hectolitres after it ended, they looked for avenues for improvement primarily through the sale of non-consumable spirits (Grata 2002: 145-146). Research into the possibilities of using spirit for diesel blends was undertaken with the support of the Directorate of the State Spirits Monopoly (DPMS) in the mid-1920s, and as a result, the Monopoly Directorate signed a contract in 1927 for spirit dehydration with the Kutno Chemical Plant, which built a plant with a capacity of 5 million litres per year (Rotstein 1932: 133).

Thus, opportunities for the development of the production and sale of spirit fuel blends emerged in Poland. The path to this, however, was not easy. While the problem of the excessive cost of producing dehydrated spirit was solved by the introduction in 1932 of changes in the organisation of the system of production and purchase of spirit for non-consumption purposes (Grata 2002: 266-269), the oil companies operating in the country were strongly opposed. For them, the use of spirits in a liquid fuel meant competing with the gasoline they produced and thus depleting their sales volumes. The result had to be increased and much less profitable exports (*Bezpośrednia...* 1932: 529-530; Mikucki 1932: 554-556). The plans formulated by supporters of domestic distilling to introduce spirit blends were not only described as domestic dumping, but were also treated, with some exaggeration, as an outright threat to destroy the basis for the existence of the oil

⁴ Between 1885 and 1935, the size of spirits sales for consumption decreased in Europe from about 4 litres per capita to less than 1 litre.

industry. There were both factual arguments indicating the pointlessness of using spirit admixtures in fuels in a country with its own oil reserves, as well as demagogic ones referring to possible technical risks to engines (*Minister...* 1932: 35; Schätzel 1932: 578-580).

Adherents of spirit blends, recalling the economic importance of agricultural distilleries, pointed to the need to support this industry, which was in danger of collapse. It was argued that, according to popular opinion, domestic oil fields were gradually depleting, which meant that the introduction of blends could allow them to be exploited for longer. Extrinsic arguments were not forgotten either, among which the fact that measures were taken to support the distilling industry in the hands of Polish landowners at the expense of the oil industry, which remained mostly in the hands of foreign capital, was emphasised (J. Z. 1932: 541-546).

Introduction of propellant compounds to the market

Amid clashing opposing interests of the distillery community and the oil sector, reaching an agreement on spirit blends long remained impossible. The Oil Industry Syndicate was opposed to their introduction into the trade, as a result of which the DPMS signed its first contracts for the sale of dehydrated spirit from the autumn of 1928 with the State Mineral Oil Factory "Polmin" in Drohobycz. Finally in 1930 the syndicate banned "Polmin" from continuing this cooperation. At that time, the monopoly authorities already had to negotiate directly with the association, which only in the first half of 1931 agreed to introduce small amounts of spirits into the fuel trade (Mateńko 1939: 192-193).

In this situation, the Economic Committee of Ministers on August 5, 1931, adopted a resolution to recognise the sale of spirits for propulsion purposes as a "state necessity" (*Minister...* 1932: 114; *Sprawozdanie...* 1938: 263-264). Accordingly, despite the signing of agreements with the Syndicate's unaffiliated two fuel trading companies, the strategic goal became the systemic regulation of the introduction of spirit fuel blends into the market. Part of this plan were the aforementioned changes regulating the management of non-consumable spirits, as well as the possibility (threat) of the Council of Ministers forcing the use of spirits for propellant mixtures, which was enshrined in the containing Presidential Decree of July 11, 1932. At the same time, the government, in exchange for signing an agreement on the matter, guaranteed the oil industry the establishment of a compulsory organisation, advocated by most companies, to organise the export of petroleum products (OJ 1932: 63/586; Franaszek 2020: 324-325).

This is what soon happened. The government, by decree of October 12, 1932, established the Polish Petroleum Export, a compulsory organisation for the export of petroleum products (Kawalla 2015: 259), and on January 27, 1933, a contract was signed between the DPMS and companies belonging to the dissolved Oil Industry Syndicate. It required affiliated oil companies to purchase and sell in fuel blends dehydrated spirit in an amount equal to 9% of gasoline sales on the domestic market in the previous year. It was to be in effect until the end of 1938, and two

types of fuel mixtures were put on the market according to its provisions. The first, intended for agricultural tractors, and the second, more important and intended for other propulsion purposes, consisted of 16-22% spirit and 78-84% gasoline. Distributors of mixed spirits were to be marked with the letter "M". The price of spirits sold by DPMS was dependent on gasoline prices to guarantee the profitability of blend sales to fuel producers. The contract was executed by the Petroleum Industry Trading Company, which was part of the liquidated Petroleum Industry Syndicate (Grata 2011: 205-206).

Another agreement regulating the sale of propellant mixtures was signed on December 20, 1938 (it went into effect at the beginning of 1939). It was concluded for an indefinite period and increased the presence of alcohol in the fuel market. Oil companies were obliged to purchase quantities of dehydrated alcohol equivalent to 15% of the previous year's sales, and Polish Petroleum Exports handled the execution of the contract. The new agreement also brought a 25 percent increase in the price paid by oil companies for the spirit they bought (*Analiza...* 1939: 44-45; *Zmiany...* 1939: 105).

Spirit blends in the fuel market

Pushed through by state authorities against the opinion and interests of the oil sector, in the name of fulfilling the economic needs of the distillery industry, spirit fuel blends became a permanent feature of the domestic fuel market in the 1930s. Oil companies tried to fight the "uninvited guest" that spirit in blends was considered to be. A dispute over the interpretation of the agreement signed in January 1933, which ended in arbitration, continued for some time. Initially, too, fuel distributors tried to discourage buyers from buying blends by setting higher prices or labelling distributors with "pure gasoline" placards that contained fuel without alcohol admixture. As late as August 1936, representatives of the oil industry made a demand at a meeting of the Inter-Ministerial Commission to abolish the obligation to collect spirits and use them for propulsion purposes, arguing that spirits were displacing gasoline for export and thus worsening the industry's revenues. They also pointed out that "the damage done to the oil industry by the use of spirits for propulsion purposes is completely disproportionate to the benefits to agriculture" (*Postulaty...* 1936: 101).

Over time, the situation normalised, and oil companies adapted to the binding rules of cooperation. In the second half of the 1930s, as domestic demand for fuel increased, more oil companies joined the contract (e.g., "Standard Nobel" and "Gazolina"), and in 1938 the oil companies bought 1.3 million litres of spirit over the required quota. Significantly, the pricing rules stipulated in the agreement were favourable from the point of view of the oil sector, which was confirmed by the statements of critics of the introduction of diesel blends, who considered the price

of 25-26 groszy per litre of dehydrated spirit to be profitable, which in practice became mandatory (Grata 2011: 207)⁵.

The conclusion of the agreement in 1933 brought a significant increase in spirits sales for propulsion purposes. In the first years of its presence on the market, the size of sales of such alcohol was small, and as a rule was within a few hundred thousand litres. In 1933/34, the first full year of the agreement, 8.7 million litres were sold, and with some fluctuations at this level, sales stabilised in subsequent years (the affiliated oil companies purchased about 5 million litres of dehydrated spirit annually). Significant progress was made as the economy improved, with sales already at more than 11 million litres in 1937/38, more than doubling to 22.6 million litres in 1938/39, and oil companies purchasing as much as 13.1 million litres, a result not only of the new DPMS contract that went into effect in January 1939, but also a marked 36 percent increase in gasoline sales. Since the first agreement was signed with DPMS, the affiliated oil companies distributed about 60% of the spirit destined for propulsion purposes. The relative importance of military authorities, which initially covered more than 20% of total sales, was considerable, while later their share exceeded 30%. A few percent was purchased by the unaffiliated fuel company "Drago," which in the first period of the development of sales of mixtures was sometimes the only buyer of dehydrated spirit, and after signing an agreement with the oil industry its quota was strictly limited until the end of 1938 (Grata 2011: 211-213).

Conclusion

In the harsh realities of the Polish oil industry of the interwar period, the forced *de facto* introduction of spirit fuel blends to support the agriculturally-related distillation industry could hardly be considered a favourable move for the oil industry. With few fuel outlets on the domestic market, the need to supplement blends with dehydrated spirit directly had to limit the size of sales of gasoline alone and displace part of production to much less profitable exports. Thus, at the expense of the interests of the refining industry, the authorities sought to support a branch of the economy associated with a strong landowner lobby. On the other hand, it is worth remembering that the advantage of the entry into force of the DPMS agreement was that the state authorities forcibly regulated relations in the oil industry and organised its export activities, so that they could become much more rational than before, while improving the situation of the entire industry.

Over time, as the economy improved, the new liquid fuel component, previously unwanted, became less and less of a burden imposed on the operation of the

⁵ In the late 1930s, the following oil companies performed the contract with the Monopoly Directorate: "Polmin", Galician Carpathian Oil Joint Stock Company, "Galicia" Joint Stock Company, "Natural Gases" Joint Stock Company, Polish Union Rock Oil Refineries, "Fanto" Joint Stock Company, "Nafta" Joint Stock Company, "Vacuum Oil Company", "Limanowa", "Gazolina" Joint Stock Company, and Standard Nobel in Poland.

oil industry. Contrary to earlier fears, the prices paid for it were in line with industry expectations and increasing domestic gasoline sales in the second half of the 1930s allowed the simultaneous increase in sales of both petroleum industry products and dehydrated spirit.

In the second half of the 1930s, voices critical of the very idea of selling spirit fuel blends quieted somewhat, the problem of spirits displacing some domestically produced gasoline for export still remained. However, the latter allegation also lost its relevance just before the war, when in 1938 domestic sales of gasoline finally exceeded the pre-crisis level, and its exports fell to just 12,000 tonnes, already five times lower than in the early 1930s (the share of the internal market in the development of domestic gasoline production was approaching 80%). Thus, in an environment of declining oil production, with a growing domestic market for fuels, this meant that dehydrated spirits could in time become an important supplement to the production of the oil sector.

Bibliography

1. AAN, Ministerstwo Skarbu 1918-1939, sygn. 6907, *Analiza gospodarcza działalności Państwowego Monopolu Spirytusowego w roku 1938/39*.
2. AAN, Państwowy Monopol Spirytusowy, sygn. 506, Sprawozdanie Komisji Budżetowej za kampanię 1937/38.
3. AAN, Prezydium Rady Ministrów Biuro Ekonomiczne, sygn. 1233, *Minister Skarbu – wnioski na KEM w sprawie ustalenia wytycznych do nowelizacji rozporządzenia Prezydenta RP z 26 marca 1927 w zakresie zakupu spirytusu oraz sposobów likwidacji posiadanych przez Państwowy Monopol Spirytusowy nadmiernych zapasów spirytusu 1932*.
4. *Bezpośrednia groźba przymusu stosowania mieszanek spirytusowych*, „Przemysł Naftowy” 1932, z. 21.
5. Dz. U. 1932, nr 63, poz. 586.
6. Franaszek P., *Główne problemy polskiego górnictwa naftowego na progu niepodległości* [w:] *Gospodarczy bilans otwarcia polskiej niepodległości w 1918 roku*, red. T. Głowiński, M. Zawadka, Wydawnictwo Gajt, Wrocław 2018.
7. Franaszek P., *W stronę modernizacji polskiego sektora naftowego – działania władz II RP na rzecz stworzenia silnego polskiego przemysłu naftowego* [w:] *Przemiany modernizacyjne w Drugiej Rzeczypospolitej*, red. P. Grata, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2020, s. 311-332.
8. Grabiański H., *Rola spirytusu w polityce płynnego paliwa* [w:] *Spirytusowe mieszanki napędowe w Polsce*, Państwowy Monopol Spirytusowy, Warszawa 1931.
9. Grata P., *Przemysł gorzelniczny w II Rzeczypospolitej*, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2002.
10. Grata P., *Spirytusowe mieszanki napędowe, czyli „biopaliwa” w II Rzeczypospolitej*, „Kwartalnik Historii Kultury Materialnej” 2011, nr 2.

11. J. Z., *Mieszanki spirytusowe a benzyna*, „Rolnik Ekonomista” 1932, nr 23.
12. Kawalla I., *Działalność Polskiego Eksportu Naftowego w latach 1933-1939* [w:] *Kresy Wschodnie. Gospodarcze i społeczne znaczenie polskich kresów*, red. T. Głowiński, Wydawnictwo Gajt, Wrocław 2015.
13. *Mały Rocznik Statystyczny 1939*.
14. Mateńko W., *Zagadnienie monopolów skarbowych w Polsce*, Szkoła Główna Handlowa, Warszawa 1939.
15. Mikucki T., *Mieszanki spirytusowe a przemysł naftowy*, „Przemysł Naftowy” 1932, z. 22.
16. Missala B., *Rozwój zbytu spirytusu niekonsumpcyjnego w Polsce*, „Przemysł Rolny” 1939, nr 7-8.
17. Morawski W., *Galicyjskie zagłębia naftowe*, [w:] *Problemy energetyczne Polski. Część I: surowce*, red. A. Jarosz-Nojszewska, W. Morawski, Oficyna Wydawnicza SGH, Warszawa 2016.
18. *Postulaty przemysłu naftowego*, „Przemysł Naftowy” 1936, z. 3.
19. Rotstein M., *Spirytus jako materiał pędny nie jest namiastką benzyny lecz jej ulepszeniem*, „Rolnik Ekonomista” 1929, t. VII, nr 17.
20. Schätzel S., *Przymus mieszanek a przemysł naftowy*, „Przemysł Naftowy” 1932, z. 23.
21. *Zmiany organizacyjne w naszym przemyśle naftowym*, „Przemysł Naftowy” 1939, z. 4.

Paweł Grata Professor (full) – Economic and social historian, head of the Department of Economic and Social History at the Institute of History of the University of Rzeszów.

ORCID 0000-0003-2358-3475