

“Determining the Value of the Local Solidarity Tax on Transactions Between Naftal and Its Parent Company Sonatrach: A Study of Petroleum Products Distributed via Pipelines for the Years 2024 -2025”

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Received (25/05/2026)

Accepted (16/07/2026)

Abstract:

This study aims to shed light on one of the latest tax reforms, namely the Local Solidarity Tax (TLS), which was introduced as a replacement for the Professional Activity Tax (TAP). However, this new tax applies to fossil energy and mining products and came into force starting from the 2024 fiscal year. Given the importance of this type of taxation, especially in terms of the revenues that local authorities, particularly municipalities, will benefit from, this study attempts to explain how this tax is calculated within Sonatrach, with a focus on products distributed and sold to Naftal through pipelines. The study reached an approximate calculation of the taxable base and the amount paid under this tax. It also found that there is no difference between the rate applied under the old tax and the new tax in this company, and that the method of distributing tax revenues has not changed.

Keywords: Local solidarity levy, Petroleum products, Professional activity tax.
Jel Classification Codes : Q40; H25; H20

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1- Introduction:

Algeria has witnessed many economic transformations mainly linked to the drop and rise in oil prices, making it imperative to work on developing the capacities of the national economy and expanding its diverse investments. For this reason, in recent years the state has moved to grant incentives, exemptions, reductions, and settlements at reduced rates for investors in order to propel the wheel of development and raise the gross national product and exports outside hydrocarbons. Among the most notable concessions made by the state was the abolition of one of its most important tax revenues, namely the Professional Activity Tax, which constituted one of the main sources of income for local communities, foremost among them municipalities. Thus, all economic, commercial, industrial, and service activities became exempt from this tax, except for companies that produce and distribute hydrocarbon products such as oil and gas, mines, and quarries... These latter activities, after being exempted from the Professional Activity Tax, were replaced by the Local Solidarity Tax, with the aim of compensating local communities for the tax revenues they lost as a result of abolishing the old tax, and in this way the tax base is expanded in the future.

The Local Solidarity Tax imposed on the hydrocarbons sector, oil companies foremost among them Sonatrach and its subsidiaries is an important alternative to the loss of the Professional Activity Tax, whose rate is twice the rate imposed on mining and quarry revenues... The state relies on it heavily to finance local development for municipalities, especially shadow areas across the country, since it is calculated on the basis of the pipelines that pass through these areas.

1-1- Research Question:

Based on the above, the fundamental research question is:

How is the value of the local solidarity tax determined for transactions between Naftal and its parent company Sonatrach regarding hydrocarbon products distributed via pipelines during the 2024–2025 period, and what are the resulting fiscal and financial implications for both parties and for local communities?

The following sub-questions can be derived from the research question:

- What is the legal and fiscal framework governing the local solidarity tax applicable to the transportation of hydrocarbons via pipelines under the 2024 Finance Act?
- What is the tax base for the local solidarity tax in the case of transactions between the two entities (turnover, volume of transported quantities, or others)?
- How can the tax amount for the years 2024 and 2025 be calculated based on quantities, prices, and turnover?

1-2- Study Hypotheses:

The following hypotheses can be formulated:

- It is assumed that the tax base for the local solidarity levy in transactions between Naftal and Sonatrach is the turnover resulting from the transportation of petroleum products via pipelines, in accordance with the provisions of the 2024 Finance Act.
- It is hypothesized that the application of the local solidarity tax to these transactions increases transportation costs and partially affects the cost of the final product, but without a significant impact on the consumer price due to state intervention in the pricing of basic petroleum products.
- The local solidarity tax is expected to constitute an important revenue source for beneficiary local communities, particularly in the provinces and municipalities through which the pipelines pass.

1-3- Objectives of the Study:

- To clarify the legal and fiscal framework of the local solidarity tax in Algeria, with a focus on the transportation of petroleum products via pipelines.
- Analyze the nature of transactions between Naftal and Sonatrach regarding petroleum products distributed via pipelines and determine the appropriate tax base for the local solidarity tax in this context.
- To develop an applied model for calculating the value of the local solidarity tax on these transactions for the years 2024 and 2025 based on approximate actual data.
- To highlight the financial implications of the tax on the two entities (Naftal and Sonatrach) and on the revenues of the beneficiary local communities.

1-4- Significance of the Study:

- To contribute to enriching the literature on local taxation in Algeria in general, and the local solidarity tax in particular, in the context of local fiscal reform and the replacement of the tax on professional activity.
- To provide a practical model that the relevant institutions and tax administration can use to assess the impact of the local solidarity tax on the fuel transport sector and estimate its revenue.
- To highlight how adjusting the rates and tax base of this tax can influence local government financing and improve their capacity to fund public services.

1-5- Scope of the Study:

We focus on calculating and determining the value of the local solidarity tax without delving into other taxes. As for the temporal and spatial scope:

- Temporal scope: Only 2024 and 2025, with a focus on 2023 to identify differences between the old and new levies, and on 2024, as this is the year the local solidarity levy on fuel transportation activities takes effect, to examine its impact over the following year.
- Spatial scope: Transactions between Naftal and its parent company Sonatrach within Algerian territory in the context of transporting petroleum products via the national pipeline network.

1-6- Methodology and Data Collection Tools:

A descriptive-analytical approach to present the legal and fiscal framework of the local solidarity levy and its objectives, through a review of laws and regulations. And a quantitative applied approach to calculate the value of the tax based on approximate actual data regarding the quantities of petroleum products transported via pipelines and transfer prices or turnover, obtained from Naftal.

1-7- Previous studies:

1- Zinat Saïd and Ouina Fatima, article titled: “From the Perspective of Local Taxation in the Algerian Tax System: What Does the Abolition of the Professional Activity Tax (TAP) and the Introduction of a Local Solidarity Tax (TLS) Mean, in Light of the Tax Measures of the 2024 Finance Act?”, Journal of Contemporary Economic Studies, Vol. 9, No. 1, June 30, 2024.

In this study, we address an important tax measure included in the 2024 Finance Act, namely the abolition of the tax on professional activity (TAP) and the introduction of a local solidarity tax (TLS). The study aimed to clarify the state's crucial role in working toward achieving economic and social objectives by supporting investment through the improvement of the business climate.

- Hajjar Mabrouka, article titled: “The Contribution of the Professional Activity Tax to the Financing of the Budget of the Municipality of M'Sila (Algeria) During the Period 2020–2023: A Comparative Study with the Local Solidarity Tax as an Alternative,” Al-Manhal Al-Iqtisadi Journal, Vol. 7, No. 2, December 15, 2024.

The study aimed to analyze the revenues generated by the business tax and its importance in bolstering the financial resources of the municipality of M'Sila (Algeria) during the period 2020–2023, while assessing the extent to which the local solidarity tax could fill the potential financial gap following the abolition of the professional activity tax under the 2024 Finance Act. The results showed that the professional activity tax generated significant revenue during the study period, and the local solidarity tax is considered a promising alternative for achieving sustainable financing of municipal budgets if it is carefully designed and implemented.

1-8- Study Plan:

The study was divided into three main sections as follows:

- Section 1: The Theoretical and Legal Framework of the Local Solidarity Tax
- Section 2: The Specific Nature of Transactions Between Naftal and Sonatrach in the Pipeline Transport of Petroleum Products
- Third theme: Determining the amount of the local solidarity tax on transactions between Naftal and Sonatrach during 2024–2025

2- Theoretical and Legal Framework of the Local Solidarity Tax:

The local solidarity tax is one of the most recent taxes enacted by the Algerian legislature in the 2024 Finance Act, with the aim of bolstering local authorities' resources and ensuring their continued funding, particularly following the loss of numerous tax revenues due to the tax concessions, exemptions, and reductions granted by the state to various institutions. These measures were intended to foster economic development, attract non-hydrocarbon investments, diversify the national economy, and improve the national output. This tax is based on two complementary dimensions: a theoretical dimension grounded in the principle of local fiscal solidarity, and a legal dimension that defines its scope of application, determines its tax base, and specifies the methods of collection in accordance with the provisions of tax legislation.

2-1- What Is the Local Solidarity Tax (TLS)?

From a theoretical standpoint, the Local Solidarity Tax falls within the category of solidarity-based tax instruments, as it is not limited to mere revenue collection but is also linked to the idea of redistributing resources and supporting balance among local communities. It is also viewed as an alternative or complementary mechanism to certain previous taxes, particularly following the abolition of the tax on professional activity, thereby allowing for the replacement of a portion of the resources allocated to local budgets. (Ministry of Finance, 2024)

Legally, the local solidarity tax was included among the tax measures of the 2024 Finance Act, applying to certain activities, such as the transport of fuels via pipelines and mining activities, in accordance with the rates specified in the regulatory texts. The General Directorate of Taxes also notes that this tax is subject to the provisions of Article 364 bis et seq. of the Law on Direct Taxes and Similar Levies, with monthly payment deadlines established.

2-1-1- Definition of the Local Solidarity Tax:

The Local Solidarity Levy was established pursuant to Articles 15 and 25 of the 2024 Finance Act. It is a direct tax levied on the transportation of fuels via pipelines and mining activities whose profits are subject to income tax (IRG) and corporate income tax (IBS). (Ministry of Finance, 2024)

2-1-2- Technical Aspects of the Local Solidarity Tax (TLS):

The Local Solidarity Levy is calculated based on turnover excluding value-added tax (VAT), by applying a specific rate according to the activity as defined in the 2024 Finance Act and in accordance with Article 231 bis 1 of the Law on Direct Taxes and Similar Levies. The levy is also applicable to:

- The activity of transporting fuels via pipelines, at a rate of 3% of the company's total revenue, not on revenue generated from sales passing through the pipelines;
- Mining activities whose profits are subject to the tax on gross income (IRG) or the corporate income tax (IBS), calculated at a rate of 1.5% of the turnover generated by these mining and quarrying activities. (Zinat Al-Said and Fatima Ouina, 2024, adapted)

- How is the Local Solidarity Levy calculated:

The Local Solidarity Levy (TLS) is calculated as a percentage of turnover excluding VAT, with rates varying by type of activity. It is calculated using the following formula:

Amount due = Turnover subject to the levy (excluding VAT) × the applicable rate based on the activity.

For example: An entity with a taxable turnover of 1,000,000 DZD excluding (VAT) for the month, and an activity rate of 3%, would have a Local Solidarity Levy of $1,000,000 \times 3\% = 30,000$ DZD.

- Tax Base and Period for the Levy:

The turnover subject to the local solidarity levy constitutes the tax base upon which the levy amount (taxable income) is calculated; it must be declared and paid between the 1st and 20th of each month following the month of activity on Form G50, as provided for in Article 364 bis 3 of the Law on Direct Taxes and Similar Levies.

2-1-3. Distribution of the Solidarity Levy (TLS)

The Solidarity Levy (TLS) is distributed as follows: (Ministry of Finance, 2025)

- 66% to the municipality where the mine is located and to the municipalities through which fuel transport pipelines pass.
- 29% to the province where the mine is located and to the provinces through which fuel transport pipelines pass.
- 5% to the Solidarity and Guarantee Fund for Local Communities.

While revenue from the tax is distributed according to the above percentages, the 5% allocated to the Solidarity Fund remains insufficient and unfair to municipalities through which no pipelines pass or where there are no mines, as many municipalities and provinces lack the resources to support themselves financially.

2-2- Abolition of the Professional Activity Tax (TAP) and Introduction of the Local Solidarity Tax (TLS):

The Professional Activity Tax (TAP) is a type of tax or financial levy imposed by the state on individuals or legal entities engaged in specific professional or commercial activities. This tax is part of the tax system aimed at regulating professional activities and increasing public revenue for government entities, whether local or national. It typically covers activities carried out on a permanent or periodic basis, such as trade, professional services, small or large-scale industries, and other economic activities. (Samir Belkhiria, 2020, p112)

The decision to abolish the Professional Activity Tax (TAP) in Algeria, effective in 2024, and replace it with the Local Solidarity Tax (TLS), is not a superficial measure but rather part of a national strategy aimed at reforming the tax system and enhancing its efficiency in light of the economic and social transformations Algeria has undergone in recent years. This decision followed a comprehensive study of various economic and tax-related factors regarding the effectiveness of this tax and its compatibility with the current situation. (Leila Daraji, 2024, p. 73)

Given the economic transformations Algeria has undergone, it was necessary to simplify the tax environment surrounding business to ensure the attraction of domestic and foreign investment. The multiplicity of taxes, including the tax on

professional activity, was considered one of the obstacles hindering the growth of economic activities, particularly for small and medium-sized enterprises. Therefore, the abolition was a step toward improving the country's investment climate, making the tax system simpler and clearer.

2-3- Comparison between the Professional Activity Tax and the Local Solidarity Tax:

To compare the professional activity tax—which was abolished under the aforementioned articles and had been imposed on many enterprises at varying rates—with the local solidarity tax, the rates for activities subject to the latter have not changed significantly, as shown in the following table. (Mansour Ben Amara, 2016, p68)

Table No. 01: Comparison of the Professional Activity Tax with the Local Solidarity Tax

	Tax on professional activity	Local solidarity tax
Scope of application	-The tax is due on the turnover achieved in Algeria taxpayers whose activities are subject to the Global Income Tax in the category of commercial and industrial profits or to the Corporate Profits Tax.	-Hydrocarbon Transport Activities by Pipeline. -Mining activities whose profits are subject to the Global Income Tax or the Corporate Profits Tax.
Rate	-3% on the turnover generated from the hydrocarbon transport activity by pipeline. -1.5% for commercial and service activities, including public works.	-3% on the turnover generated from the hydrocarbon transport activity by pipeline. -1.5% on the turnover generated from mining activities.
Distribution	-66% for the benefit of the municipality -29% for the benefit of the province -5% for the benefit of the Solidarity and Guarantee Fund for Local Authorities.	-66% for the benefit of the municipality where the mine is located and for the benefit of the municipalities through which the hydrocarbon transport pipelines pass -29% for the benefit of the province where the mine is located and for the benefit of the provinces through which the

		hydrocarbon transport pipelines pass. -5% for the benefit of the Solidarity and Guarantee Fund for Local Authorities.
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Source: Mabrouka Hajjar, under the title: “The Contribution of the Professional Activity Tax to Financing the Budget of the Municipality of M’Sila (Algeria) During the Period 2020–2023: A Comparative Study with the Local Solidarity Tax as an Alternative,” *Al-Manhal Al-Iqtisadi Journal*, Vol. 7, No. 2, December 15, 2024.

3- The Specific Nature of Transactions Between Naftal and Sonatrach in the Pipeline Transport of Petroleum Products:

Sonatrach is an Algerian national hydrocarbons group, while Naftal is a wholly-owned subsidiary specializing in the distribution and marketing of petroleum products. The relationship of subordination is evident in that Naftal operates within the Sonatrach system as a subsidiary or commercial branch of the group.

3-1- Introduction to Sonatrach and Naftal and Their Relationship:

Sonatrach (the National Hydrocarbons Group) is a national integrated company established on December 31, 1963, operating across the entire hydrocarbons value chain from exploration and production to transportation, processing, and marketing. Sonatrach is the largest oil company in Africa and plays a central role in the Algerian economy through its significant contribution to national revenue and employment.

Naftal, on the other hand, is a company specializing in the distribution of petroleum products and the marketing sector within Algeria, with several activities including the commercial operation of gas stations and oil supply services. It also has divisions such as the Fuel Division, the Liquefied Gas Division, and the Commercial Division, and it acquires other entities through either full or partial takeovers, meaning it makes decisions independently of its parent company, Sonatrach. However, both companies are considered public economic entities owned by the state.

Naftal operates as a local commercial supplier linking production and refining to local fuel distribution networks. It is also listed among the subsidiaries or conglomerates that make up the Sonatrach system, meaning that Sonatrach exercises strategic oversight and ownership over Naftal despite its operational independence, and coordinates its operational and investment policies within a

unified strategic framework. This relationship enables the integration of the value chain (from production to distribution), facilitates national energy planning, and allows for the transfer of resources, technologies, and financial support between units. When Sonatrach requests an increase in refining capacity or a modification of the distribution network, policies and investments are directed toward distribution companies such as Naftal within the system to ensure their implementation at the local level.

3-2- Description of the activity of transporting petroleum products via pipelines:

Sonatrach owns a vast network of pipelines spanning millions of kilometers both within and outside the country. Until 2023, the company paid a 3% professional activity fee; thereafter, this fee was abolished and replaced by the local solidarity fee, which imposes the same percentage on the company's total turnover. However, in this study, we examined a sample of pipelines belonging to Naftal. Since Naftal does not use its pipelines for distribution or sales, it does not pay the tax; rather, Sonatrach pays it, as Sonatrach is the entity that sells fuel through these pipelines and thus generates the revenue.

4- Determining the amount of the local solidarity tax on transactions between Naftal and Sonatrach during 2024–2025:

The local solidarity tax was introduced to provide financial support to local communities, although the professional activity tax had previously served this purpose; however, it was not specifically allocated or directed exclusively to provinces and municipalities. which distinguishes the new tax from the old one. Transactions between Naftal and Sonatrach are considered to benefit local communities through their access to additional tax revenues resulting from pipeline sales between the two companies.

4-1- Presentation of data on transported volumes and transaction values:

Since we obtained the information from Naftal, which is Sonatrach's internal customer, Sonatrach sells petroleum products such as unleaded gasoline and diesel to Naftal at preferential prices—that is, using transfer prices—whether via sea or land transport or through pipelines, as stated in this study. Therefore, we will determine the purchase price of these products via pipeline from the parent company, which is also the selling price of Sonatrach to this subsidiary.

4-1-1- Determining the total volume sold by Sonatrach via pipeline to Naftal:

During 2023:

Total purchases 100% = 10.5 million cubic meters

Purchases via pipeline 65% = 6.8 million cubic meters

In 2024:

Total purchases 100% = 13 million cubic meters

Pipeline purchases 76% = 9.9 million cubic meters

In 2025:

Total purchases: 100% = 13.9 million cubic meters

Pipeline purchases: 76% = 10.8 million cubic meters

4-1-2- Determining the volume sold via pipeline by product type:

- Annual volume of pipeline purchases: 73% mazut:

2023 = 6.8 million cubic meters $\times$ 0.73 = 4.964 million cubic meters

2024 = 9.9 million cubic meters $\times$ 0.73 = 7.227 million cubic meters

Year 2025 = 10.8 million cubic meters $\times$ 0.73 = 7.884 million cubic meters

- Annual pipeline purchase volume: 27% unleaded gasoline:

Year 2023 = 6.8 million cubic meters $\times$ 0.27 = 1.836 million cubic meters

Year 2024 = 9.9 million cubic meters $\times$ 0.27 = 2.673 million cubic meters

Year 2025 = 10.8 million cubic meters $\times$ 0.27 = 2.916 million cubic meters

4-1-3- Calculation of sales value by product type sold via pipeline:

We have the differential selling price set by Sonatrach, which is determined by the state based on citizens' purchasing power. Additionally, applicable taxes, fees, and charges must be taken into account. Accordingly, Sonatrach's purchase prices per cubic meter for the two products transported via pipeline are as follows:

Diesel = 10,699.30 DZD per cubic meter

Unleaded gasoline = 15,653.60 DZD per cubic meter

- Calculation of annual sales value for fuel distributed via pipelines:

Value of Sonatrach's fuel sales—whether diesel or gasoline—subject to the professional activity tax in 2023 and to the local solidarity tax starting in 2024:

- Calculation of annual sales value for diesel:

2023:

$$\begin{aligned}\text{Diesel sales} &= 4.964 \text{ million cubic meters} \times 10,699.30 \text{ DZD} \\ &= 53,111.3252 \times 106 \text{ DZD/cubic meter} \\ &= 200,325,111.53 \text{ DZD}\end{aligned}$$

2024:

$$\begin{aligned}\text{Mazout sales} &= 7.227 \text{ million cubic meters} \times 10,699.30 \text{ DZD} \\ &= 77,323.8411 \times 106 \text{ DZD/cubic meter} \\ &= 100,841,323.77 \text{ DZD}\end{aligned}$$

2025:

$$\begin{aligned}\text{Mazout sales} &= 7.884 \text{ million cubic meters} \times 10,699.30 \text{ DZD} \\ &= 84,353.2812 \times 106 \text{ DZD/cubic meter} \\ &= 200,281,353.84 \text{ DZD}\end{aligned}$$

- Calculation of annual sales of unleaded gasoline:

2023:

$$\begin{aligned}\text{Sales of unleaded gasoline} &= 1.836 \text{ million cubic meters} \times 15,653.60 \text{ DZD} \\ &= 28,740.0096 \times 106 \text{ DZD/cubic meter} \\ &= 28,740,009,600 \text{ DZD}\end{aligned}$$

2024:

$$\begin{aligned}\text{Sales of unleaded gasoline} &= 2.673 \text{ million cubic meters} \times 15,653.60 \text{ DZD} \\ &= 41,842.0728 \times 106 \text{ DZD/cubic meter} \\ &= 800,072,842.41 \text{ DZD}\end{aligned}$$

2025:

$$\begin{aligned}\text{Sales of unleaded gasoline} &= 2.916 \text{ million cubic meters} \times 15,653.60 \text{ DZD} \\ &= 45,645.8976 \times 106 \text{ DZD/cubic meter} \\ &= 600,897,645.45 \text{ DZD}\end{aligned}$$

- Calculation of total sales of fuel distributed via pipelines (approximate amount subject to the local solidarity tax):

During 2023:

Total pipeline fuel sales for 2023 = diesel sales + unleaded gasoline sales
 = 200,325,111.53 + 600,009,740.28
 = 81,851,334,800 DZD

During 2024:

Total pipeline fuel sales for 2024 = Diesel sales + Unleaded gasoline sales
 = 100,841,323.77 + 800,072,842.41
 = 900,913,165.119 DZD

During 2025:

Total fuel sales via pipeline for 2025 = diesel sales + unleaded gasoline sales
 = 200,281,353.84 + 600,897,645.45
 = 800,178,999,129 DZD

4-2- Determination of the local solidarity levy resulting from transactions between the two companies during 2024–2025:

As previously noted, Naftal is a wholly-owned subsidiary of Sonatrach. Despite this, Naftal operates independently of Sonatrach; therefore, even if there are specific transactions between the two entities—particularly regarding pricing—each entity retains control over its own management and operations.

4-2-1- Determination of the lengths of pipelines used to transport fuel between the two companies:

The following table shows the lengths of pipelines owned by Naftal, through which fuel purchased from Sonatrach is transported:

Table 2: Locations and lengths of fuel pipelines.

Region	Pipeline Location	Pipeline Length
Central Region	Port of Algiers to Sidi Razine and then to Chafa	57 kilometers

Eastern Region	Skikda to Constantine (El Kharoub)	106 kilometers
Eastern Region	Constantine to El Eulma	New, not yet in use
Eastern Region	Skikda to Annaba (Barhal)	80 kilometers
Western Region	Oran (Arzew) to Sidi Bel Abbes	85 kilometers
Western Region	Sidi Bel Abbes to Tlemcen (Ramchi)	83 kilometers
Total length of pipelines in use		411 kilometers

Source: Prepared by researchers based on data from Naftal.

4-2-2- Calculation of revenue per kilometer from total revenue (sales):

The sales value per kilometer is determined by dividing the annual revenue generated from Naftal’s fuel sales via pipelines by the total length of pipelines in use, as follows:

During 2023:

Sales price per kilometer = Total fuel sales via pipelines for 2023 =
81,851,334,800 = 666.18,151,199 DZD/kilometer
Total length of pipelines in use 411 kilometers

During 2024:

Price per kilometer of sales = Total fuel sales via pipelines for 2024 =
900,913,165,119 = 396.35,941,289 DZD/kilometer
Total length of pipelines in use 411 kilometers

During 2025:

Price per kilometer of sales = Total fuel sales via pipelines for 2025 =
800,178,999,129 = 705.11,299,316 DZD/kilometer
Total length of pipelines used 411 kilometers

4-2-3- Determining the Local Solidarity Levy:

Since the entity under study is Sonatrach, a petroleum company active in the fuel sector, and since it produced and sold fuel to its subsidiary Naftal via pipelines, it is required to pay the local solidarity levy. For the record, 3% is levied on Sonatrach's total sales since it owns a pipeline network of several kilometers, but in this study our objective was to demonstrate the levy on transactions between the two entities, and then attempt to determine the local communities' share of this levy.

Since we have determined the turnover and the price per kilometer of fuel sales via pipeline subject to the levy for each year, including 2023—when the levy on professional activity was imposed at the same rate and with the same distribution ratios— we can calculate the tax for each year and determine the approximate revenues that will be generated for the municipality, the province, and the Solidarity and Guarantee Fund for Local Communities, for example.

- Determination of the local solidarity tax on sales of fuel piped by Sonatrach:

For the year 2023:

Total amount due = Taxable turnover (excluding VAT) × Applicable rate based on activity.

$$= 81,851,334,800 \text{ DZD} \times 3\% = 2,455,540,044 \text{ DZD}$$

Per kilometer:

Amount due per kilometer = Turnover subject to the levy per kilometer × Rate applicable by activity.

$$= 666.18 \ 151 \ 199 \text{ DZD/km} \times 3\% = 5 \ 974 \ 549.98 \text{ DZD/km}$$

For the year 2024:

Total amount due = Taxable turnover (excl. VAT) × Rate applicable to the activity.

$$= 900,913,165,119 \text{ DZD} \times 3\% = 3,574,977,417 \text{ DZD}$$

Per kilometer:

Amount due per kilometer = Turnover subject to the tax per kilometer × Rate applicable by activity.

$$= 396.35, 941,289 \text{ DZD/km} \times 3\% = 8,698,241.89 \text{ DZD/km}$$

In 2025:

Total amount due = Taxable turnover (excl. VAT) $\times$ Rate applicable to the activity.

$$= 129,999,178,000 \text{ DZD} \times 3\% = 3,899,975,364 \text{ DZD}$$

Per kilometer:

Amount due per kilometer = Turnover subject to the tax per kilometer $\times$ Rate applicable by activity.

$$= 299,316.7051 \text{ DZD/km} \times 3\% = 9,488,991.15 \text{ DZD/km}$$

4-2-4- Calculation of Tax Revenue:

After determining the amount of the fee due on products distributed via pipelines, we will make an approximate estimate of the distribution of this tax revenue derived from the local solidarity fee, as mentioned in the theoretical framework. We will take the example of the pipeline from the Port of Algiers to Sidi Razine to Chafa (Blida), which is estimated to be 57 kilometers long. This pipeline passes through the municipality of Baraki from Sidi Razine to Ben Talha over a distance of approximately 6 kilometers.

To calculate this, we simply take the fee per kilometer and multiply it by 6 kilometers as follows:

In 2023:

Amount due for the Baraki municipality section = Fee per kilometer $\times$ 6 kilometers.

$$= 5,974,549.98 \text{ DZD/kilometer} \times 6 \text{ kilometers} = 35,847,299.88 \text{ DZD}$$

In 2024:

Amount due for the Baraki municipality section = Fee per kilometer $\times$ 6 kilometers.

$$= 8,698,241.89 \text{ DZD/km} \times 6 \text{ km} = 52,189,451.34 \text{ DZD}$$

In 2025:

Amount due for the distance in the municipality of Baraki = Fee per kilometer × 6 km.

$$= 9,488,991.15 \text{ DZD/km} \times 6 \text{ km} = 56,933,946.90 \text{ DZD}$$

Since the fee is paid monthly, as explained earlier, we can calculate the monthly fee by dividing the annual amount due by 12 months. For example:

During the year 2025:

$$\begin{aligned} \text{Monthly amount due} &= \text{Amount due for the distance of the municipality of Baraki} \\ &= \frac{52,189,451.34}{12 \text{ months}} = 120.94,349.04 \text{ DZD/kilometer} \end{aligned}$$

- Distribution of tax revenues from the local solidarity tax on fuel distributed via pipelines crossing the municipality of Baraki:

The following table shows how the revenue due for the local solidarity tax is distributed among local authorities, namely the municipality of Baraki and the province of Algiers. We have taken a small sample as a practical example: the distance covered by the pipeline connecting the Port of Algiers to Chafah (Blida) as it passes through the city of Baraki. We previously determined the approximate distance to be 6 kilometers, and the tax due for this distance was calculated over three years. Based on these tax revenues, the share of each entity that will benefit from the tax amount was distributed, as shown in the table below:

Table 3: Distribution of revenue from the local solidarity tax among local municipalities and the Solidarity Fund:

Year	Amount due for the Baraki municipality section	Baraki municipality's share 66%	Algiers province's share 29%	Solidarity Fund's share 5%
2023	35,847,299.88	23,659,217.92	10,395,716.96	1,792,364.99

2024	52,189,451.34	34,445,037.88	15,134,940.88	2,609,472.56
2025	56,933,946.90	37,576,404.95	16,510,844.60	2,846,697.34

Source: Prepared by the researchers

We observe from the table above that annual revenues have increased in the last two years, 2024 and 2025, during the application of the new tax compared to 2023, which is the year the tax was applied to professional activities, even though the rate is the same and the distribution ratio to local communities and the Solidarity Fund remains unchanged.

Furthermore, the share of the Solidarity and Security Fund for Local Communities from local solidarity tax revenues is low compared to the shares of municipalities and provinces, as the percentages indicate, even though this fund underwent several reforms during the years 2022 and 2024.

5- Conclusion:

This study concluded that the local solidarity tax has become a primary revenue tool for financing local communities following the abolition of the business activity tax, and that its application to the transportation of hydrocarbons via pipelines between Sonatrach and Naftal is based on turnover excluding value-added tax, at approximately the same rate previously applied, namely 3% for this activity. The results also show that the method of calculating the tax does not represent a fundamental change in the tax burden on Sonatrach, but rather essentially reflects a reorganization of the mechanism for collecting and distributing local resources.

Accordingly, the question at hand can be answered by stating that the amount of the local solidarity tax is determined based on the turnover generated by the sale of petroleum products transported via pipeline, to which the legally prescribed rate is then applied, with the proceeds distributed among the municipality, the province, and the Solidarity and Guarantee Fund for Local Communities according to the approved ratios. The study also showed that the direct financial impact on the consumer remains limited due to the nature of administrative pricing for petroleum products in Algeria.

Evaluation of Hypotheses:

- Hypothesis 1: Correct, as it was found that the tax base for the local solidarity levy in this case is the taxable turnover generated by the transportation and sale of petroleum products via pipelines.

- Hypothesis 2: Partially correct, because the tax increases the tax burden on the enterprise, but the study indicates that its impact on the final price remains limited due to state intervention in pricing.
- Hypothesis 3: Correct, because the tax does indeed represent an important source of revenue for local communities, particularly municipalities and provinces through which the pipelines pass.

Key findings:

- The local solidarity tax replaced the professional activity tax for the activities subject to it, particularly hydrocarbons and mining.
- Annual revenue generated via pipelines increased in 2024 and 2025 compared to 2023, which is directly reflected in tax revenue.
- The tax rate remained at 3% on pipeline fuel activities, with the overall distribution pattern remaining essentially unchanged.
- Tax revenue is distributed among municipalities, provinces, and the Solidarity Fund at 66%, 29%, and 5%, respectively; however, the Fund's share remains limited compared to the other parties.
- The case study highlighted that the tax generates a significant financial resource for local communities, even in the case of a limited section of the pipeline network, such as the case study of the municipality of Baraki.

Recommendations:

- It is advisable to review the mechanism for distributing local solidarity tax revenue to ensure greater equity among local communities, particularly those that do not benefit from pipeline routes or mining activities.
- It is advisable to enhance transparency in defining the tax base and the method of calculation, so that the collection and distribution criteria are clear to the entities subject to the tax and the beneficiary local communities.
- The benefits of this tax can be expanded by supporting municipalities and provinces that bear the environmental and service burdens associated with pipeline transit.

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