

## Tax pressure and litigation: What impact on the national economy

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### Abstract:

The objective of this article is the study of the contestation of the fiscal power by the presentation, the evaluation of the tax pressure in Algeria as well as the different phases of the administrative and jurisdictional appeal for the period from 2010 to 2017.

In order to better understand the influence exerted by the tax pressure on the national economy, we have developed an autoregressive vector model to simulate the impulse response functions for a period from 2010 to 2016.

The main results obtained from this study indicate that the tax pressure exerts a negative impact on the dynamics of the economic growth of the country and that at a certain point the tax rate completely destroys the tax base until the tax revenues tend to zero which confirms the theory "Arthur Laffer".

**Keywords:** Tax pressure; taxpayer; tax litigation; state revenue; economic growth

**Jel Classification Codes :** H22, H30

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## 1. INTRODUCTION

Tax litigation can be considered as the set of legal rules governing the treatment of disputes that arise during the establishment of the tax or its collection. The exercise of a certain tax pressure on the taxpayer pushes him to a challenge which can be either sociological (fraud, tax evasion ...), as it can be in the praetorium or the courts.

The litigation function is a valuable indicator of the progress made in protecting taxpayers' rights. Indeed, it constitutes the means of articulation of the interests of the parties in litigation, in the sense that it measures the balance between, on the one hand, the powers conferred on the tax administration to establish, liquidate and recover taxes and, on the other hand, the rights and guarantees granted to taxpayers to challenge taxes they consider unfounded. In addition, it allows the administration to assess compliance with the application of procedures and tax legislation.

In addition, once all the remedies available to taxpayers have been exhausted and the dispute persists, the dispute can only be submitted to arbitration by the judge in a so-called jurisdictional phase. Therefore, the exercise of a certain tax burden on the taxpayer has considerable consequences on the economic growth of a country. In this sense that we ask the following main question: **Does tax pressure influence the economic growth of a country?**

In order to confirm or deny our work, we have developed the following hypotheses:

**Hypothesis 1:** Tax pressure influences negatively on the economic growth of a country.

**Hypothesis 2:** The tax pressure generates a sociological challenge to the tax.

This work explores the contestation of fiscal power by taxpayers following a tax pressure exerted on them which is mainly due to the complexity of the tax system. The dispute relates to requests for the repair of errors made in the tax base or the calculation of taxes by questioning the merits or the amount of the notified taxes and duties. In order to better explain the influence exerted by tax pressure on the national economy, we have chosen to use a model (VAR) which explains the existing relationship between tax pressure and the country's economic growth, for a period considered (2010-2016), which constituted the third point of this article.

## **2. Tax pressure and litigation: Structure and analysis**

Corporate taxation has a considerable impact on the behavior of economic agents. Although ordinary taxation is one of the state revenues used to cover public expenditure. The question that arises is that the tax pressure is high in Algeria? Is there a maximum of tax pressure so as not to have a negative impact on the behavior of economic agents? What makes a taxpayer to challenge the tax?

### **2.1 Fiscal pressure**

#### **2.1.1 Previous work**

The relationship between tax pressure and economic growth is discussed by several economists. The work of Skinner (1987) and Engen-Skinner (1996) tried to verify the existence of a linear relationship between the tax system and economic growth, where the impact of taxes is considered constant over time, and analyze the ways in which fiscal policy influences economic growth based on the Solow (1956) model which explains aggregate output by physical capital, human capital and technology. They assumed that tax variables indirectly exert negative effects on economic growth through four channels:

- The introduction of high tax rates discourages private investment because they increase the cost of physical capital.
- An exaggerated income tax reduces the supply or time of labor.
- Excessive fiscal policy slows down the growth of the overall productivities of capital and labor by reducing research, innovation and development activities.
- Tax policy affects the marginal productivity of capital by causing a shift in productive but heavily taxed private investments to less productive sectors of activity that benefit from favorable taxation. On the other hand, the interaction between taxation and growth could have a non-linear form, in the form of a "Laffer curve"

#### **2.1.2 Definition of the tax burden**

The fiscal pressure also called the rate of compulsory deductions refers to "the ratio between the mass of the overall tax levy and the gross national product".

**The overall levy rate = Annual amount of compulsory levies / Gross national product**

The annual number of compulsory levies is understood to mean all the taxes actually collected by the tax administration. Some limit the concept of global tax pressure to direct and indirect taxes, others, such as France, the extension to social security contributions. As a result, they speak of fiscal and parafiscal pressure.

With regard to gross domestic product, it means the sum of the values of finished products and services produced by a state in a given year, excluding intermediate goods.

The GNP is substituted for the purpose of calculation by the gross domestic product (GDP), which includes all the components of the GNP, after deduction of the income earned by nationals of the country in question residing abroad and including the entire gross domestic production. **GDP = Sum GVA + DD + VAT**

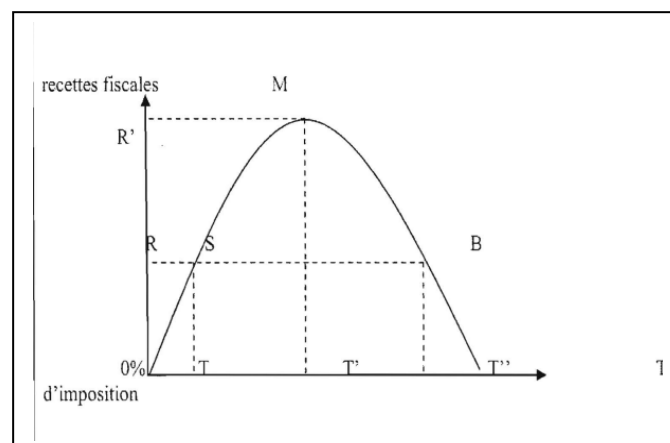
### 2.1.3 The limits of the fiscal pressure

Some taxes are very closely related to the rate of fiscal pressure which can be summarized as (BACCOUCHE, 1993):

- Income allocation policy: a minority of people have a high income, while the majority have only a relatively low income. Therefore, the tax burden unfairly influences the purchasing power of citizens by penalizing those with low incomes;
- An increase in national income leads to improved tax revenues. However, some tax systems are inelastic to changes in national income;
- The duality of the formal market and the informal market:

A.LAFFER took up a principle already expressed by A. SMITH (1976), that "**Too much tax kills tax**" by justifying that from a certain threshold, the tax return becomes decreasing, or a rate exaggerated taxation destroys the tax base (AINOUCHE, 1984). In other words, strong pressure discourages citizens from working, saving and investing, which leads to a decline in economic activity accompanied by an increase in the scale of fraud and tax evasion, something that reduces tax revenues.

**Fig.1.** Arthur LAFFER's curve



Source: MARTINEZ. C (1984), Tax fraud, Edition PUF, Paris ,p79.

We note that at the tax rate (0%) tax revenues are zero. From point (0,0), tax revenues increase in parallel with the increase in the tax rate, going from point S (R, T) to point M (R', T') which represents the maximum threshold of tax revenue. Beyond this point, tax revenues gradually decrease with the increase in the tax rate to reach point C (100%, 0). It is necessarily true that when the tax rate is zero, tax revenue is also zero.

The total confiscation of income (rate at 100%) results in an equally imperative that the national income is zero, unless forced labor is instituted. The decreasing part of the curve is said to be "prohibitive" which indicates that from a certain tax threshold, any increase in the levy causes a reduction in the taxable material and consequently in tax revenue, which is explained by the flight of economic operators to the tax authorities and resort to black labor.

#### **2.1.4 The tax irritants in Algeria**

Four essential factors are at the origin of the tax irritation, namely (MUZELLEC, 1993): the nature of the tax, the method of its valuation, its age and the method of levy.

- Direct taxes, on income and on capital, give taxpayers the idea of a much heavier burden than that of indirect taxes incorporated into the sale price. However, the reality is however quite different from the fact that the consumption tax goes unnoticed and enjoys tax anesthesia unlike direct tax where the legal taxpayer is confused with the real taxpayer who bears effectively the tax burden (BELTRAME, 1993).

One of the factors causing tax irritation is the technique of reporting. The index assessment of the taxable matter, which did not require the taxpayer to meet the tax official, avoided the tensions associated with the audited declaration. Likewise, the age of the tax changes the tolerance threshold. Old imports give the illusion of a lower tax burden, because they are part of the daily environment of the taxpayer and integrate them into his charges and eventually accept them.

But it is above all the method of tax collection that gives or does not give the taxpayer the impression of a burden. In this respect, the imports collected by means of withholding taxes are more anesthetic. The taxpayer does not feel their existence.

### **2.2 Tax litigation**

Tax litigation concerns all disputes between the taxpayer and the tax administration. It concerns requests for the repair of errors made in the tax base or the calculation of taxes by questioning the merits or the proportion of taxes and duties.

#### **2.2.1 Prior recourse**

##### **a. Filing of the complaint**

These are complaints made by the taxpayer when he considers that the taxation imposed on him by the tax administration is exaggerated or abusive.

To this end, he lodges a complaint with the competent services within the time limits which are determined by tax legislation.

##### **b. Complaint's deadline**

To be admissible, and according to Article 72/1 of the Code of Tax Procedures, complaints must be submitted within the legal time limits. They are admissible until 12/31 of the second year following that of the assessment of the roll or the occurrence of the event which gives rise to the complaint.

**c. Legal suspension of payment**

The contentious claims giving rise to the benefit of the legal suspension of payment formulated by the applicants who have been the subject of one of the forms of tax audit provided for in Articles 18 to 21 of the CPF are summarized in the following table:

**Table 1.** Granting of legal suspension of payment

Nature of control	Article of the CFP
Formal or in-depth examination of declarations and use of cross-checks... etc. operated by the tax inspectorates and services responsible for managing new tax structures (DGE, CDI, CPI). 18 and 19	18 and 19
Accounting audit.	20
Spot check of accounts.	20bis
VASFE.	21

Source : Ministry of Finance (2017), Directorate General of Taxes (DGI).

**d. Investigation of complaints**

In accordance with articles 77 and 79 of the CPF amended and supplemented respectively by articles 38 and 37 of the finance law for 2012, the thresholds for jurisdiction in contentious matters are set as follows:

**Table 2.** Thresholds of jurisdiction in contentious matters

Structure	Jurisdiction thresholds
<b>Proximity Center for Taxes (CPI)</b>	Amount less than or equal to 20,000,000 DA.
<b>Tax Center (CDI)</b>	Amount less than or equal to 50,000,000 DA.
<b>Wilaya Tax Department (DIW)</b>	<b>ICC cases:</b> Amount greater than 20,000,000 DA <b>CDI cases:</b> Amount greater than 50,000,000 DA <b>Business inspection:</b> Amount less than or equal to 50,000,000 DA. <b>SDCF, SRV affairs:</b> Amount less than or equal to 50,000,000 DA.
<b>Central administration</b>	Amount greater than 150,000,000 DA regardless of the origin of the contested regularization.

Source : Ministry of Finance (2017), Directorate General of Taxes (DGI).

**e. Transmission of complaints to the taxing service for preliminary investigation and investigation of complaints by the structure responsible for litigation.**

All the necessary measures must be taken so that the complaints are examined and the files transmitted to the concerned structure in charge of the litigation, within the time limits to rule. Once the complaint file, accompanied by the preliminary investigation, is received by the structure responsible for litigation, it will be investigated by the investigating officers of the departments concerned by a formal and substantive examination.

**f. Issue of the decision**

The decision must be made in time, so that it can be notified to the taxpayer before the expiry of the time limits provided in accordance with Articles 76-2 and 77 of the Code of Tax Procedures.

- Two (02) months for matters relating to the IFU;

- Four (04) months for cases falling within the competence of CDI and CPI;
- Six (06) months for cases falling within the competence of the DIW;
- Eight (08) months for matters falling within the competence of the central administration.

#### **g. The automatic relief**

The tax administration is under the obligation to pronounce the tax relief ex officio for taxes with obvious errors.

#### **2.2.2 Appeals committees**

Within the meaning of Article 80-4 of the Code of Tax Procedures, taxpayers must file their appeals with the chairmen of the various direct tax and VAT appeals commissions. These thresholds are shown in the table below:

**Table 3.** Jurisdiction thresholds for the contested amounts

Direct tax and VAT appeals commissions Competence thresholds “Contested balance”	Competence thresholds “Contested balance”
<b>Wilaya (CWR)</b>	Wilaya (CWR) Contested tax balance less than or equal to 20,000,000 DA.
<b>Regional (CRR)</b>	Contested tax balance greater than 20,000,000 DA and less than or equal to 70,000,000 DA.
<b>Central (CCR)</b>	Contested tax balance greater than 70,000,000 DA.

**Source :** Ministry of Finance (2017), Directorate General of Taxes (DGI).

#### **2.2.3 The dispute in court (judicial appeal)**

After exhaustion of all avenues of appeal before the various appeal boards and when the dispute persists, the dispute may be submitted to the judge for arbitration. The procedural rules governing judicial litigation relating to tax are those enacted by the Code of Civil and Administrative Procedure in matters of administrative litigation with full jurisdiction, as well as the provisions of tax legislation.

##### **a. The judicial body**

The judicial proceedings begin with the referral to the judge of the first degree, namely the administrative court. It continues, where appropriate, before the Council of State, which acts as an appellate judge in the full dispute.

The referral to the administrative judge, by the taxpayer, takes place:

- If the decision taken on the initial complaint does not give him complete satisfaction;
- If the decisions taken after consulting the appeals committees do not give him satisfaction;
- If he has not received notification of a decision after the expiry of the time limit for the tax administration to rule on his contentious claim;
- If he has not received notification of a decision after the expiry of the deadline for committees to rule on appeals.

##### **b. The prior complaint to the tax administration**

The prior complaint to the tax administration is the first step in the litigation procedure. It is a prerequisite and mandatory for the admissibility of the legal action.

**c. Time limit for referral to the administrative judge**

The action with the administrative court must be brought within four **(04) months**, from:

- From the day of receipt of the notice by which the tax administration notifies the taxpayer of the decision taken on his claim;
- From the day of receipt of the decisions notified by the tax administration after notice, issued by the appeals committees.
- The appeal periods are interrupted in the following cases:
  - Appeal to an incompetent administrative court;
  - Request for legal aid;
  - Death or change of capacity of the applicant;
  - Force majeure or fortuitous event.

**d- Implementation of legal action**

- Legal proceedings in tax matters are implemented by registering a request to institute proceedings with the registry of the administrative court.

**e. Course of the trial**

The trial will be carried out by:

- The appointment of a magistrate rapporteur;
- Notification of the request filed at the registry of the administrative court within the meaning of article 844 of the code of civil and administrative procedures;
- Conciliation as an alternative means of settling administrative disputes in accordance with articles 970 to 974 of the code of civil and administrative procedures;
- - The exchange of briefs and investigation of the case.

**f. The judgement**

- The judgment must be pronounced publicly and indicate the following mentions:
- The jurisdiction which issued it;
- The names, first names and capacity of the magistrates who deliberated on it;
- The date of its delivery;
- The first and last names of the representative of the prosecution, if applicable;
- The names and surnames of the clerk who assisted in the formation of the judgment;
- The names, first names and address of the parties; in the case of legal persons, their form, name, and registered office and the quality of their legal or contractual representative;
- The names and surnames of the lawyers or of any person who represented or assisted the parties;
- The mention made at the delivery of the judgment in public hearing.

Once the judgment is pronounced, remedies are offered to the taxpayer which are instruments governed by the law for the review of decisions rendered by the courts and the control of their regularity, they can be ordinary when they are ipso jure. and extraordinary when the law sets certain preconditions.

## 2. 2.4 Analysis of the situation of tax litigation in the wilaya of Bejaia:

The tax litigation situation in the wilaya of Bejaia reflects the following for the 2017 financial year:

### a. Situation of the prior appeal

**Table 4.** Situation of prior recourse by type of tax for the year 2017 (in%)

Dues and taxes	Appeals brought%	Amount contested in%	Decreased amounts / disputed amounts
IFU	43,70%	17,86%	10,97%
IRG	21,28%	18,92%	21,64%
IBS	01,76%	11,75%	06,67%
TAP	03,67%	15,59%	05,66%
TVA	19,66%	31,75%	17,73%
Other taxes	08,27%	03,06%	34,96%
Recording rights	01,66%	0,64%	22,50%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>14,66%</b>

**Source:** Ministry of Finance (2017), Directorate General of Taxes (DGI).

The number of legal appeals lodged in 2017 by taxpayers was 1,414 claims against 1,761 claims lodged in 2016. This can be explained by the slightest error made by the tax administration. In 2017, 618 complaints concerned taxpayers monitored under the flat-rate scheme, i.e., 43.70% of total complaints. This is explained by the determination of the tax bases by the tax administration, unlike the taxpayers monitored under the real regime, their dispute mainly concerns the IBS, TAP and VAT. These are controlled by the tax authorities.

As for the reduced amounts, they represent only 14.66% of the total amount contested.

### b. Situation of the judicial appeal

**Table 5.** Situation of legal recourse by origin of the contested taxes for the year 2017(in%)

Origin of the contested charges	Appeals brought%	Amount contested in%	Amounts canceled / Amounts contested
Regularizations	56,34%	39,51%	02,06%
Accounting audit	24,60%	20,37%	00
VASFE	03,17%	02,87%	00
Real estate revaluations	06,34%	0,82%	03,55%
Recovery	06,34%	36,41%	00
Various	03,17%	00	00
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>0,84%</b>

**Source:** Ministry of Finance (2017), Directorate General of Taxes (DGI),

In 2017, 126 appeals were lodged with the administrative court. 56.34% concerns the regularizations in terms of taxes and duties followed by cases relating to the audit of accounts which relates to the repair of some errors in particular those of the determination of the tax result which will be used as tax base in matters corporate income tax.



### **3. Fiscal Pressure and Economic Growth: Empirical Analysis (VAR)**

#### **3.1 Relationship between fiscal pressure and economic growth**

Tax policy occupies an important place among the various economic policies in the country. In economic analysis, the allocation of public resources seeks to correct market failures in the existence of situations of supply of collective goods, externalities, monopoly and increasing returns. This allocation of resources is one of the important functions of the modern state.

Richard Musgrave (1959) proposes a classification of the functions of the state by distinguishing between the function of resource allocation, that of income distribution and that of stabilization of economic activity. These three functions correspond to three objectives: remedying market failures, reducing inequalities, combating macroeconomic imbalances.

The relationship between fiscal policy and economic growth is explained by several authors among them we find Skinner (1987) and Engen-Skinner (1996) who tried to verify the existence of a linear relationship between taxation and economic growth, where the impact of taxes is considered constant over time, and to analyze the ways in which tax policy influences economic growth. To this end, they assumed that fiscal variables indirectly exert negative effects on economic growth through four channels:

- The introduction of high tax rates discourages private investment.
- An excessive income tax reduces the supply or time of labor.
- Excessive fiscal policy slows down the growth of the aggregate productivity of capital and labor by reducing research, innovation and development activities.
- Tax policy affects the marginal productivity of capital by causing a shift of productive but heavily taxed private investments to less productive sectors of activity which benefit from favorable taxation.

The role of taxation in economic growth has been at the center of public finance. The effects of fiscal policy on growth have been analyzed by Barro (1990), King and Rebelo (1990). In these models, the instruments of fiscal policy act differently on economic growth by generating distortions through changes in the behavior of economic agents. Taxes distort private decisions and create a misallocation of resources. They affect household savings, the supply of labor, the decision of companies to produce, job creation, and investment. Therefore, taxes affect economic growth.

In all endogenous growth models, indirect taxation does not affect the behavior of individuals, but direct taxation remains harmful to growth. Several empirical studies have tested these hypotheses, with the aim of clarifying the relationship between the structure of taxes and economic growth.

Given the divergence of the results of the different studies, we will follow a methodology similar to the approach used by Blanchard and Perotti (1999), Edelberg et al. (1999), and Fatàs and Mihov (2001). We will try to analyze the channels through which tax pressure affects economic growth. We then estimate the response functions using a VAR (Vector

Autoregressive) specification and understand the dynamic relationships between economic growth and tax pressure in a country.

### 3.1.1 Evolution of tax pressure in Algeria

**Table 7** illustrates the evolution of the tax pressure in Algeria between the period from 2010 to 2016.

**Table 6.** Evolution of the tax pressure in Algeria between 2010-2016 (in%)

Years	2010	2011	2012	2013	2014	2015	2016
Ordinary taxation (billion DA)	1590,38	1855,89	2297,6	2461,36	2536,79	2968,03	3075,73
PIB (HH)	7 811,2	9 346,1	10672,3	11 675,8	12 547,3	13 521,9	13 042,1
Pression fiscale (En%)	20,36	19,86	24,53	21,08	20,22	21,95	23,58

**Source:** Ministry of Finance, Directorate General of Taxes (DGI), (2017).

For the study period, the rate of fiscal pressure in Algeria (excluding hydrocarbons) is between 20.36% to 23.58%. The increase in ordinary resources between 2014 and 2015 induced by the various measures taken by the various finance laws for 2014 and 2015 allowed an increase in the ordinary tax burden. The increase in the tax burden generates an increase in tax revenue.

### 3.1.2 Economic growth rate in Algeria between 2010-2016 (in%)

**Table 7.** Annual GDP growth between 2010-2016 (in%)

Years	2010	2011	2012	2013	2014	2015	2016
PIB in %	3,60	2,90	3,40	2,80	3,80	3,70	3,20

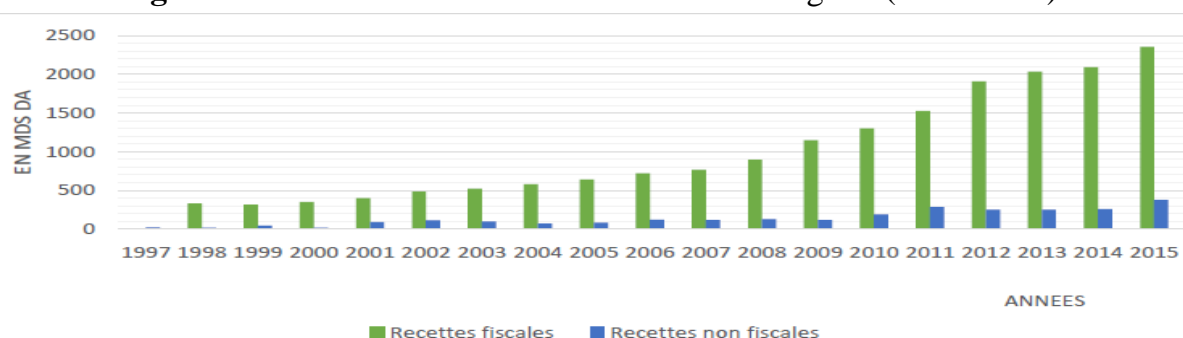
**Source:** World Bank: <http://banquemonddiale.org> consulted on 09/24/2020

The economic growth of GDP in Algeria experienced some fluctuation between the study period. Knowing that Algeria is highly dependent on the hydrocarbon rent which represents the main source of the country. At the end of December 2011, economic growth was estimated at 4.8%. Production in the oil and gas sector continues to decline in volume, dropping from 43.2 million tonnes to 32 million tonnes between 2007 and 2011. Fiscal policy has remained expansionary and has enabled growth of 3.4% in 2012, rising to 3.8% in 2013 and 3.20% in 2016.

### 3.1.3 Evolution of tax and non-tax revenues in Algeria

The evolution of tax and non-tax revenue in Algeria is shown in the graph below:

**Fig 2.** Evolution of tax and non-tax revenue in Algeria (1997-2015)



**Source:** Ministry of Finance (2016), Directorate of Taxes (DGI).

In 2001, tax revenues amounted to 398.2 billion DA, representing 9.4% of the GDP, they increased in 2002 to 482.9 MDS DA and in 2003 to 519.9 billion DA.

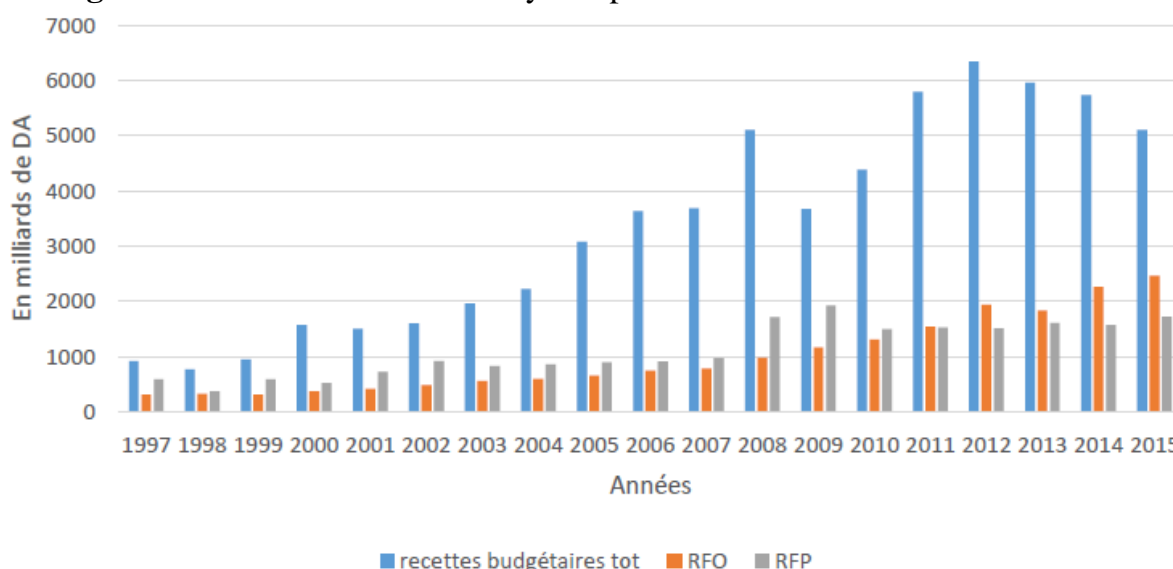
During the year 2011, tax revenue stood at 3,078.4 billion dinars against 2,811.07 billion dinars in 2010. This allocation includes direct taxes (IRG, IBS, etc.), business taxes (VAT, TIC), customs products, domain products, indirect contributions and petroleum taxation.

Tax revenues increased from 3447.3 billion dinars in 2013 to 3845.18 billion dinars in 2014, unlike non-tax revenues which experienced very little evolution with a ceiling of 390 billion dinars achieved in 2015.

### 3.1.4 The contribution of ordinary and petroleum revenues to total revenues

The contribution of regular and petroleum revenues to total revenues is shown in the figure below:

**Fig 3.** The contribution of ordinary and petroleum revenues to total revenues



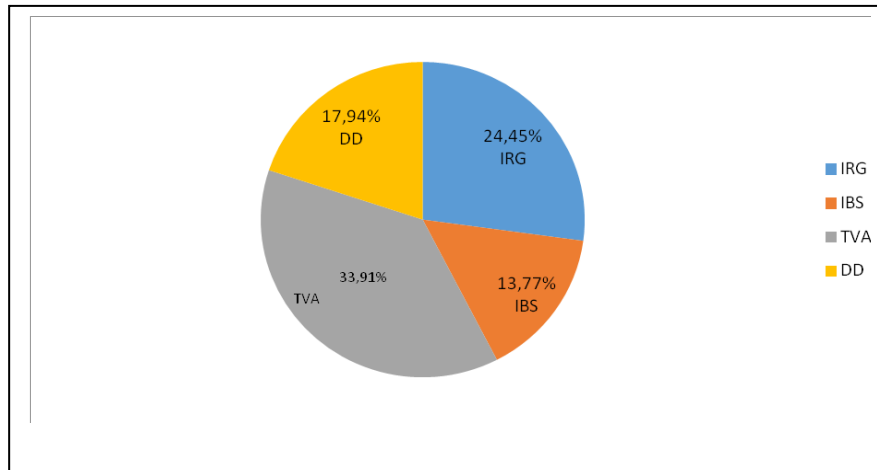
**Source: Ministry of Finance (2016), Directorate General of Taxes (DGI).**

This graph shows a slight change in the collection of ordinary revenue, this increase was encouraged by the facilitation of procedures both for taxpayers and for the tax administration, in particular by the simplification of the relationship with users, the facilitation of the daily life of the taxpayer and the simplification of administrative procedures and procedures.

In 2015, 2,465.71 MDS were recovered, this is explained by the generalization of the new organization of tax services through the commissioning of various CDI and CPI at the national level. The implementation of information and communication technologies at the service of taxpayers. The improvement of tax audit procedures and the fight against tax fraud, which took place in parallel with the strengthening of the guarantees of the taxpayer ensuring him a certain security and increasing his confidence in the tax administration, also participated in this increase.

### 3.1.5 Structure of ordinary taxation

The taxes constituting ordinary taxation are represented in the following figure:

**Fig 4.** Structure of ordinary taxation (1997-2015)

**Source:** Ministry of Finance (2016), Directorate General of Taxes (DGI).

It is clear that the results for 2014 and 2015 confirm the trend of products since 2001, with IRG and IBS representing 38.22% of ordinary revenue, followed by VAT with 33.91%. With regard to oil tax revenues, these still represent the most important part in the overall amount of budget revenues in Algeria, so that any increase in oil revenues will generate a substantial increase in the budget of Algeria. State, which reflects the importance of this tax system in the financing and economic development of the country and its essential place as a major supply element of the State budget.

### 3.2 Methodology and results of the estimates

The (VAR) model examines the effects of tax pressure as the main indicator of fiscal policy on the dynamics of the country's economic growth. It is a primary tool for macroeconomic forecasting. In this work, we estimate the dynamic relationships between fiscal pressure and Algerian economic growth for the period from 2010 to 2016.

#### 3.2.1 Advantages of the VAR model

The VAR model has some advantages which are listed as follows:

- The model variables are considered to be exogenous and endogenous, which allows a parallel interpretation of the impact of fiscal variables on economic growth.
- A dynamic analysis due to the introduction of lags.
- The simulation of shocks, via the impulse response functions, which makes it possible to understand the reaction of key variables following variations in the variables which explain them.

We have used annual series due to the existence of a non-normality in the process of generating data in quarterly series.

#### 3.2.2 The model variables studied

- Tax revenue made up of direct taxes represented by IBS and IRG and indirect taxes which are noted respectively (ID) and (IID);
- The fiscal pressure (PF), defined as the ratio of the sum of direct and indirect tax revenue to GDP;

- The real GDP growth rate is chosen as the dependent variable, denoted GDP.

### 3.2.3 Estimation results

In this work, the first step is to examine the stationarity of the variables. To this end, we apply the unit root tests ADF, consider the critical values for  $T = 37$  observations.

The following table represents the results of the stationarity tests of the variables studied:

**Table 8.** Taste of stationarity of the variables studied

	Variable in Level		Variables in first difference	
	ADF test	Decision	ADF test	Decision
PIB	-11.568	I(0)	-	-
PF	-2.319	NS	-5.322	I(1)

**Source:** Unit root tests

From the table above, ADF tests indicate that the growth rate series is stationary in level, in other words, integrated of order 0, noted I (0). While the fiscal pressure, for the two measures considered, seems to be non-stationary in level, noted (NS), but in first difference, it is therefore integrated of order 1, noted I (1).

The VAR model is written in the form:

$$x_t = \sum_{i=1}^p A_i x_{t-i} + \varepsilon_t ; i = 1, 2, \dots, T$$

Where  $x_t = ( [PIB]_t, [PF]_t )$  is a vector of dimension (2,1) composed of the interdependent variables,  $A_i$  (3,3) are the matrices of the coefficients, and  $\varepsilon_t$  is independent white noise. The standard assumptions of our equation are:

$$E(\varepsilon_t) = 0; E(\varepsilon_t [\varepsilon_s']) = \sigma; E(\varepsilon_t, \varepsilon_s) = 0 \text{ pour } t \neq s$$

From the previous work, we can estimate the impact of the PF tax burden on the economic growth rate using the impulse response functions. The shocks of the VAR model are represented as follows:

$$\varepsilon c_t = P^{-1} u_t$$

Where  $P$  is a lower triangular matrix, with  $\sum_u P P'$

$$\text{With } x_t = \sum_{i=1}^p \varphi_{i_t} \varepsilon_{t-i}$$

The results of the estimate show the following:

Considering the first model, the tax pressure exerts a negative impact on the dynamics of the economic growth of the country: a positive shock of the tax pressure exerts an immediate negative effect of approximately -0.5% on the economic growth rate. . An effect which decreases during the following years and tends towards zero. This result explains the theory of "Laffer" and which indicates that at a certain point and as the tax rate increases, this one completely destroys the tax base until the tax revenues tend towards zero. In this case, we can say that the tax rate completely destroys the tax base.

## 4. CONCLUSION

Through this intervention, tax litigation is inevitable due to the increasing complexity of tax audits and the expansion of the levy to an ever-greater number of taxpayers. The term tax litigation most often means litigation over the tax base, relating to the merits of the tax,

and which is the most common, and litigation over the recovery of the tax, relating to the procedures initiated by the tax collector to collect the sums of money due to him. More broadly, one can include the litigation of the excess of power and that of the responsibility.

However, not all tax disputes are settled by litigation. There are indeed many avenues for settling pre-litigation disputes in tax matters. In addition, regardless of the legal guarantees granted to taxpayers, the Ministry of Finance publishes a Taxpayer Charter which is a guide to good practices recalling the principles of simplicity, respect and fairness which must be the basis of relations between the tax administration and the taxpayer.

Regarding the study of the impact of tax pressure on the national economy, we find that through the results of the empirical study conducted between the dynamic interactions of economic growth and tax pressure that our estimates are consistent with the theoretical work mentioned by the various authors and that the tax pressure really has a negative effect on the country's economic growth. Nevertheless, some tax reform should be considered in order to alleviate this tax burden which weighs heavily on the contributions of legal and natural persons.

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