

Effect of financial repression in terms of elasticity on economic structure of public expenditure*

تأثير القمع المالي من حيث المرونة على الهيكل الاقتصادي للنفقات العامة

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Abstract: In several economies, the capital expenditure as a share of GDP has declined while current expenditure as a share of GDP has increased. In the macroeconomic literature this is associated to the productivity rate decrease, which suggests an important role for financial investment. However, Algeria like developing countries doesn't seem to fulfil the financial development criteria. In fact, capital expenditure decreases in a financial repression context. Facing increasing trend of current spending, this article attempts to find the impact of financial repression on economic structure of public spending in Algeria. Based on the public finances involvement theory in financial repression, two hypotheses are tested that financial repression determines the economic structure of public expenditures. The results show that the financial repression elasticity of capital expenditure is negative, while that of current expenditure is positive. The empirical linear regression analysis provides strong evidence that financial repression negatively affects the capital expenditures and positively the current expenditures.

Keywords: capital expenditure; current expenditure; financial repression, elasticity.

Jel Classification Codes: H2 ; H1 ; H0

مستخلص: في العديد من الاقتصاديات، انخفضت نسبة النفقات الرأسمالية في الناتج المحلي الإجمالي في حين زادت نسبة النفقات الجارية. يفسر ذلك في نظرية الاقتصاد الكلي بانخفاض معدل الإنتاجية، مما يوحي بدور هام للاستثمار المالي. مع ذلك، لا يبدو أن الجزائر كبلد نامي تستوفي معايير التنمية المالية. في الواقع، تنخفض النفقات الرأسمالية في سياق سياسة القمع المالي. مع الميل المتزايد للإنفاق الجاري، تحاول هذه المقالة إيجاد تأثير القمع المالي على الهيكل الاقتصادي للإنفاق العام في الجزائر. استنادا إلى نظرية تورط المالية العامة في القمع المالي، يتم اختبار فرضيتين أن القمع المالي يحدد الهيكل الاقتصادي للنفقات العامة. تبين النتائج أن مرونة القمع المالي للنفقات الرأسمالية سلبية، في حين أن مرونة القمع المالي للنفقات الجارية إيجابية. يوفر تحليل الانحدار الخطي التجريبي دليلا قويا على أن القمع المالي يؤثر سلبا على النفقات الرأسمالية وإيجابيا على النفقات الجارية.

الكلمات المفتاحية: النفقات الرأسمالية؛ النفقات الجارية؛ القمع المالي، المرونة.

تصنيف JEL: H2 ; H1 ; H0

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Introduction

The importance of capital spending and current spending in the economic development of different economies cannot be recounted. Indeed, development economists estimate that shortages of education, health, and human capital in developing countries can be directly improved by capital expenditure (Rostow 1960, Bhatia 2003, Musgrave 2005). At this level, if capital expenditures are used to finance investments in roads, education, health, agriculture and separate fields, the current expenditures are used to finance the operation of public administrations whose, social and economic impact are wholly's beneficial to the country.

Empirical studies of developing countries show that capital expenditure and private investment are complementary (Blejer and Khan 1984, Greene and Villanueva 1991). In this regard, it should be recalled that private investment essentially depends on the restrictive or expansionary level of monetary policy where, interest rate is the main instrument involved. As regards the composition of fiscal policy Akitoby and Stratmann (2008) show that the composition of the budget in developing countries reacts according to the nature of the financial system. However, the other factor that explains the economic distribution of the government budget is the financial system policy (Keynes, 1936). Comparing Algeria with other developing countries, the ratio of public investment to GDP is 10% in 2008 compared to 16% for neighbouring countries (World Bank, 2009) and is still below the benchmark index of international investment relative to GDP which is 20%. This investment ratio has never fallen below 20% in some Asian countries¹. In the macroeconomic literature, this is associated to the decline in the productivity rate, suggesting an important role for financial investment. Other economists translate this gap into an increase in non productive current expenditures that leads to a significant reduction in capital expenditure (Ebajemito et al, 2004). However, the Algerian economy doesn't seem to fulfil the financial development criteria. Indeed, over the past decade and in the face of growing current expenditure, capital expenditures have been declining in a repressive financial context.

In developing countries where, the financial system is based on financial repression policy, interest rates are low and the financial intermediation which is determined by state intervention, encourage increased current spending which constitute the financing of deficits generated by low interest rates. The capitalized expenditure on their part is influenced by the financial repression policy. A high inflation rate that characterizes the financial

¹ Public investment to total government expenditure in 1990th (National Bureau of Statistic, 1997): South Korea(42.1%), Thailand (47.3%)

repression policy lead to the rise of demand money followed by a significant private investment and the decrease in public investment. Based on the findings of economists who discuss and argue that the policy of financial repression could encourage or dampen the public spending size (Dornbush and Reynoso, 1989, Roubini and Sala-i-Martin, 1992), can we justify the trend of economic structure of public expenditure in Algeria by the financial repression level?

Evidence from the general literature on the involvement of public finances in the financial system (Giovannini and De Melo, 1991) and specific information on the role of taxes generated by the policy of financial repression in financial intermediation dynamic, (Dermechi, 2017), the hypotheses are as follows: regarding to the current expenditure, which are generally the consumer goods expends, it could be used to close the gap between the borrowing rates and deposit rate on bank operations in case of sponsored job creation programs through the banking channel. And that is how; current expenditures should increase as the degree of financial repression increases.

Hypothesis 1: The effect of financial repression on current expenditure is positive.

As initiated by Thomas Tooke in 1844 and cited by Humphrey (1986), general reduction in interest rates is equivalent to a decrease in the cost of private production, hence the decline in capital expenditures. The rational notion would be that the capital spending size should decrease as the financial repression level increases because of the policy of low ratios, which encourages private investment and crowds out public investment. Hypothesis 2: The effect of financial repression on the capital expenditure is negative.

Thus this document is organized as follows. ; Section 1 presents a brief literature on the main determinants of the structure of public expenditure. Section 2 presents economic structure of public expenditures in Algeria during the period 1980-2015. Section 3 measures the financial repression elasticity of current and capital expenditure. Section 4 is an empirical analysis, discusses the structure of public expenditure under two linear regression econometric models, presents the results and provides interpretation. The section 5 concludes the paper.

1. literature review

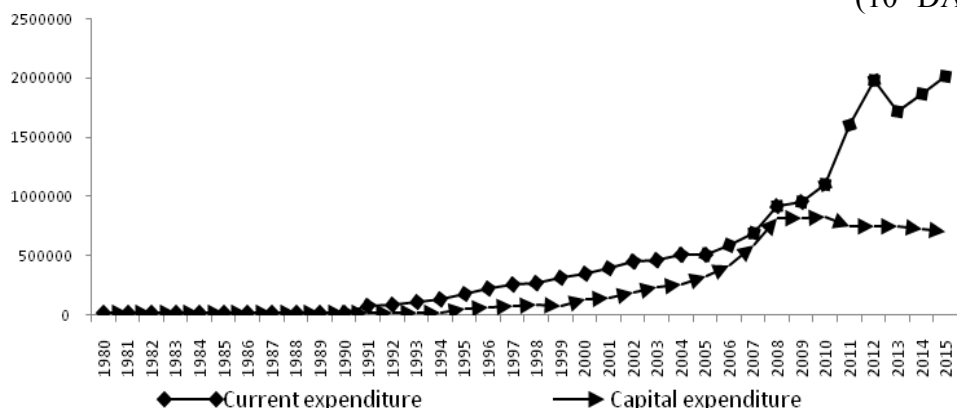
According to Dewett (2005), the focus on the economic structure of public expenditure is weak at least until the end of the 19th century. But at present, the implications in the different areas in public expenditure are very important, as they chart the path of growth and development of nation. The

study of Aschauer, (1985) emphasize that public capital has a positive marginal product and that private investment can be improved by increasing capital expenditure. Randolph et al. (1996) find the Gross Domestic Product and the rate of urbanization as determinants of infrastructure spending. Boix (1999) finds that trade openness and urbanization determine the investment spending level. Strum (2001) uses a panel data analysis on 123 developing countries and finds that GDP, trade openness, and public debt influence capital expenditures. Oluwatayo (2006), use a least squares method, and finds that governance is a key factor in determining the capitalized public spending level. Mourao (2007) sees through an ECM model, that the unemployment rate and trade openness affect investment spending. Regarding to government securities, Baldacci, Gupta and Mati (2008) show that a decline in bond cost spreads leads to an increase in capital expenditures. Empirical studies of current expenditures are mainly based on Keynesian theory. In his classic paper, Heller (1975) has shown that foreign aid increases investment and simultaneously reduces borrowing and taxes, which may have an influence on government consumption. Beljer and Khan (1984) argue that public debt can influence current spending directly because of the increased debt burden beyond a threshold level that could lead to disincentives of public sector and public investment (Krugman, 1988). An inverse relationship between Gross Domestic Product and current expenditure could appear in scale economies (Shadbegian, Owings and Borck 2000, Remmer, 2004). Swaroop and Zou (1996) using a theoretical configuration with empirical data, show that current expenditures have positive effects on economic growth. Mueller and Stratmann (2003) analyzed a set of economic, political and institutional variables. They found that their impact is significant on public current spending. Alesina and Wacziarg (1998) have argued that the urbanization population density determines the level of public current spending. Sanz and Velzquez (2002) presented a significant negative relationship on specific sectors such as consumer goods in public administrations.

2. Economic structure of public expenditure in Algeria

The Figure.1 above shows the trend in capitalized expenditures and current expenditures in nominal terms Algeria over the period 1980-2015.

Fig.1 The capital expenditure and current expenditure trend in Algeria (10⁶ DA)



Source: done by the author. Data source: Algerian [Finance Ministry](#).
GDPP.2016

2.1 Capital expenditure

The Table below presents the weighted average of the capital expenditure as a share of GDP during the period 1980-2015.

Table.1 Capital expenditure as a share of GDP

	weighted average		
	1980-1989	1990-1999	2000-2015
Capital expenditure (%GDP)	13.61	7.77	10.22

Source: produced by the author from Algerian Finance Ministry data.

The average part of capital expenditure in GDP during 1989-89 is more than 13%, increased from 16,7 billion dinars in 1980 to 33,4 billion dinars in 1989. That is a cumulative public investment estimated at 95 billion dinars between 1980 and 1989 with an annual growth rate of 2%. In 1987, the Treasury put an end to its intervention in terms of investment to increase the share of infrastructure spending and strategic activities. In 1988, banks were allowed to extend their activities to all companies, regardless of the sector of activity. The status of specialized bank is thus automatically abolished. In 1998, following the 16.3 % fall in tax revenues, caused by the implicit tax cut of financial repression, the percentage of capital expenditure in GDP fell in more than 40% between 1990-00 and account for an average of only 24% of total government expenditures in the same period, compared with more than 48 percent in the 1980-90 period. From year 2000, the capitalized public expenditure increases. From 45, 29 billion dinars in 2000 to 197.32

billion dinars in 2008 representing a share of 46.7% in total expenditure. But resumption of the decrease in capital spending begins in 2008 and persists for only reach an 18 percent of total spending. This floating is due to the dynamic of the repression of financial system, the loan rates went from 15.7 % in 1999 to 8% in 2000, thus causing an increase in the demand for money. Public investment is clearly declining and replaced by the private sector. Capitalized public spending relies on key elements such as industry, agriculture, education, public health, and others that are productive. Between 1980 and 1984, amount of investment expenditure allocated to the agricultural sector was 24.1 billion dinars. This low share has been the subject of a diagnosis by the experts of the Monetary Fund, which underline the very pronounced character of government disinvestment in industry and agricultural sector since 1984. The structure of investment expenditure of industries stopped during the period 1980 -89. As a welfare state, since independence, Algeria has spent a large amount of money on the provision of medical health services. Regarding education spending and training, Algeria has spent huge sums following independence. But from the second period of planned development, the share of capital expenditure for the education sector has been declining from 11% in 1967-79 to 9.2 % in 1980-89, i.e. 87.2 billion dinars, of which 8.2% of total capitalized expenditures in 1985-89 (45.0 billion dinars) compared 10.5% in 1980-84. Between 2000 and 2015 the share of education spending is modest, 4.8% of total capitalized expenditures, amounting to 852 billion dinars.

2.2 Current expenditure

The increase in non development spending is mainly due to population growth and the emergence of planning, leading to higher operating expenses. Current expenditures are classified under: current transfers, wages and salaries, public debt service, administrative services and others (table.2).

Table.2 Current expenditures classification (1980-2015)

	weighted average		
	1980-1989	1990-1999	2000-2015
Mean of current expenditure (% GDP)	20.26	22.14	22.98
Total current expenditure	100	100	100
Salaries and treatments	51,08	41,77	32,96
Current transfers	13,16	20,83	29,85
Public Debt Service	15,36	15,15	6,26
Administrative services	12,4	14,25	20,93
Other	8,0	8,0	10,0

Source: produced by the author from Algerian Finance Ministry data.

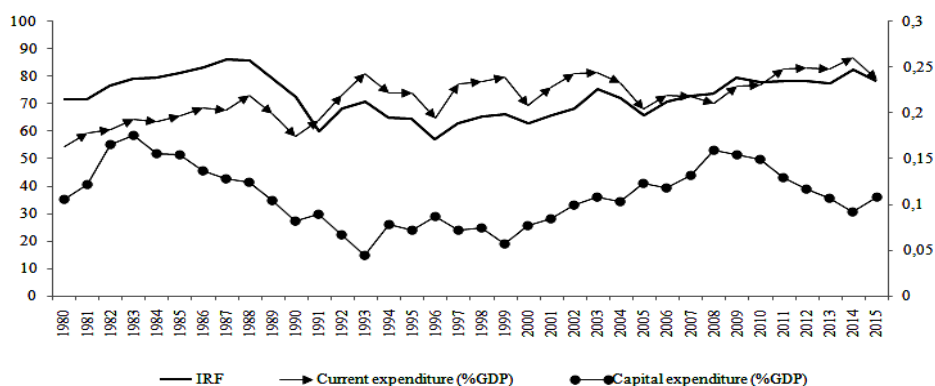
Current expenditure dominates budget expenditure. Their weight fluctuates significantly during the three decades, but the trend toward growth of variation is noticed. In the first decade, the average share of current expenditure in GDP is 20.27%. In 1999, current expenditure varies of 16.7%, from 323.7 billion dinars in 1999 to 958, 5 billion dinars in 2008. The major component of current expenditure is burden wage, with a 39 per cent of total current expenditure followed by transfer expenditures with an average rate of 37%. The share of public debt in current expenditure is estimate during this period to 12%. The increase in the current expenditure of the Algerian State was mainly in the framework of general services, the non-productive sectors whose financing is the gross national income. The 90-99 decade is characterized by minimal shares, thus 2.32% of total current expenditure. A slight upward revision from the 2000 period, between 2000 and 2015, the share represents 4.16%, of which 619 2.9 billion dinars is allocated in 2010-14.

3. Economic structure of public expenditure and the financial repression

3.1 Economic structure of public expenditure in the perspective of financial repression

The figure.2 below shows changes in the share of current expenditures and capital expenditures in GDP with the financial repression index.

Fig.2 Economic structure of public expenditure and financial repression index



Source: Produced by the author. Note: for more details on the index of financial repression see: DERMECHI (2018).

The track of the current expenditure curve and the track of financial repression index curve seem to be identical. The exact opposite capitalized expenditure curve since the 90s, where the monetary and financial reforms

were introduced and thus characterized by a fall in growth of the share of public expenditure capitalized in GDP. Consequently, the share of current expenditure in GDP increases.

3.2 The financial repression elasticity of economic structure of public expenditure

To measure the impact of a change in financial repression on the economic structure of public spending, table.3 presents the elasticity of financial repression index of size and the economic structure of public expenditures.

Table.3 The financial repression index elasticity of public expenditure structure

Period	Total public expenditure		Capital public expenditure		Current public expenditure	
	Mean	Elasticity	Mean	Elasticity	Mean	Elasticity
1980-2015	35.00	8.25	33.82	-0.67	65.52	2.37

Source : conducted by the author.

The table below shows the financial repression elasticity at short term of the structure and size of total public expenditure. The results of our analysis offer several relevant indications to this document:

With an elasticity of 8.25, total public spending seems much influenced by the degree of financial repression. At short-term, the financial repression elasticity of capitalized expenditures is weakly and negative (-0.67). This result means, a change of 0.1 in the elasticity translates into a decrease in capital expenditure of 6.7% approximately. Moreover, the result indicates that the change in capitalized expenditure is slower than that of financial repression. Indeed, structurally, the change in capital expenditures is insensitive in short term, under the financial repression policy constraint; the induced effect will be driven therefore in the long term. At short term, current expenditures are elastics in terms of financial repression (2.37). This reflects a high positive elasticity and that the current expenditures are sensitive to the variation in financial repression level. This result means, a change of 0.1 in the elasticity translates into an increase in current expenditure of approximately 23.7 %.

4. Empirical analysis

4.1 Data and models specification

Determination of economic structure of government spending and its patterns is complex and may include many factors, such as demographic, institutional and economic factors.

-Economic factors:

IRF: Financial repression index;

GDP: Real Gross Domestic Product;

DB: Real Public Debt

OPEN: Trade openness rate;

UNEMP: Unemployment rate.

-Institutional factors:

GOV: Governance Index.

-Demographic factors:

POP: Urban population

We use the equation (1) introduced by Mourao (2007). Our empirical specification is to consider two linear regression models associated to current expenditures and capital expenditures:

$$y_{it} = \alpha_i + \beta_i \sum x_{it} + \mu_{it} \quad (1)$$

y : vector of the dependent variable (current and capital expenditures).

x : independent variables (economic, institutional, demographic factors).

β_i : Coefficient of the i variable.

From equation (1), we specify our model with the explanatory variables.

The models are represented in functional form for current and capital expenditures.

EXR = (GDP, DB, OPEN, IRF, UNEMP, GOV, POP); EXR: Current Expenditure at constant Price (100=1980)

EXC = (GDP, DB, OPEN, IRF, UNEMP, GOV, POP); EXC: Capital Expenditure at constant Price (100=1980)

4.2 Empirical results

4.2.1 Stationarity

Stationarity is tested using Dickey Fuller's parametric unit root test and the KPSS stationarity test.

Table.3: ADF and KPSS tests results

Variables	ADF		KPSS		Decision at 5%
	Level	Difference	Level	Difference	
<i>lnEXC</i>	-1.388	-4.755*	0.166	0.086**	I(1)
<i>lnEXR</i>	-2.936	-5.411*	0.077**	-	I(1)
<i>lnGDP</i>	-0.199	-5.685*	0.158	0.128**	I(1)
<i>lnDB</i>	-5.012*	-	0.066**	-	I(0)
<i>lnIRF</i>	-2.157	-7.150*	0.162	0.107**	I(1)
<i>lnOPEN</i>	-3.100	-5.494*	0.150	0.102**	I(1)
<i>lnPOP</i>	1.879	-5.252*	0.224	0.124**	I(1)
<i>lnUNEMP</i>	-1.172	-5.583*	0.166	0.076**	I(1)
<i>lnGOV</i>	-5.728*	-	0.073**	-	I(0)

*The null hypothesis of unit root is rejected at 5%. ** The null hypothesis of stationary cannot be rejected. Source: *views.9*

Variables are in mixed integration order. EXC, EXR, GDP, IRF, POP and OPEN variables are stationary at the first difference. However, DB and GOV variables are stationary at level; there is no unit root and deterministic trend. The ADF test shows that the EXR variable contains a unit root and no deterministic trend. According to the ADF test, the non-stationarity of the EXR variable is stochastic. While the KPSS test suggests that the variable is stationary around a deterministic trend. In this case, the null of the non-stationarity of the ADF test is most likely. This distinction according to the origin of non-stationarity is essential statistically as well as economic analysis.

4.2.2 Empirical results

For each expense type, a linear regression model is constructed on the variables analysed below. The results of the estimation obtained are presented in Table.4

Table.4 Estimation of variables

Regressors	Model (EXR)		Model (EXC)	
	Coefficients	t-statistic	Coefficients	t-statistic
<i>ln</i> IRF	0.50	2.094*	-0.03	-5.03*
<i>ln</i> DB	0.152	2.163*	-0.007	-1.456
<i>ln</i> OPEN	-0.01	-2.321*	-0.007	-0.743
<i>ln</i> GDP	0.81	2.371*	0.57	2.895*
<i>ln</i> UNEMP	0.06	2.730*	0.44	0.112
<i>ln</i> GOV	0.027	0.504	-0.006	1.452
<i>ln</i> POP	0.14	0.267	0.04	2.366*
C	5.75	8.16*	-6.712	-7.354*
R ² adjusted	.76		.73	
DW	2.02		1.96	
Prob(F-statistic)	0.0002		0.0000	

* Denotes the significant level at 5%. Source: eviews.9

Economic and demographic factors are statistically significant. However, the institutional factor of governance is not significant in two regressions. The theoretical models of linear regression are globally significant.

4.3 Discussion of the results

Current expenditure represents a positive function of financial repression level, whereas, capital expenditure is a negative function of financial repression level. Suppose all other factors being equal, governments that are required to monetize deficits over a long period of time are more likely to choose a form of financial repression not only to finance public expenses but also to ensure the dynamic of financial intermediation. In Algeria,

during the first decade, the real borrowing rates are negative (-4.5% in 1980 and -1.80% in 1989), which lead to a structural liquidity deficit in the banking system. The authorities were financing the banks unsustainable deficit with the income of the financial repression. Indeed, in the face of high the reserve requirement ratio (16%), the inflationary tax is low while the revenue from financial repression reaching hers maximum level. Resulting in a steep increase in current expenditure up to 1989 and the fall in capitalized expenditure, because the maintaining artificially low interest rates reduces the level of savings, which leads to a decline in capital accumulation (Shaw, 1973). The beginning of the next decade saw is characterized by the sovereign debt crisis. In the long run the monetization of deficits lead to high inflation rates (31% in 1991) and a significant inflationary tax for the financing of the public debt (9.75%). After the financial reforms, the reserve requirement ratio decrease by 50% (8% during the decade of the 1990s). Borrowing rates are broadening (from 7.5% in 1989 to 19% in 1996) to incorporate the amount of interest free reserves, thereby reducing funds available in the Financial Market. The funds lack lead to rising current spending through the inflationary tax growth generated by the decline in reserve requirement ratio. A downgrade of Mandatory reserves combined with higher interest rates (deposit rates increased from 3% in 1980 to 16.58% in 1995) have leads to growth of capitalized expenditure share in GDP. Savers, who are generally unaware of the demand policy, were the main contributors to this growth in capitalized expenditures. The third decade marked by a half-released financial system. The degree of financial repression resumes its upward trend (62 in 2000 and 82 in 2014). However, this financial repression form is of a similar to that of the 1990s only this form is combined with Economic Recovery Plans implemented by financial intermediation. The fall in loan interest rates under the programs to combat unemployment is the main reason for the decline in capital expenditure. While the increase in current expenditure is due to the financing of the banking deficit in reason of loan ratios 0% (we here quote ANSEJ, CNAC and ANGEM). The increase in demand money in a context of low reserves, translates into a large inflationary tax for the financing of these current expenses. Current and capitalized expenditures represent a growing function of GDP. Indeed, the growth of gross domestic product in Algeria is largely determined by the growth of the added value of the hydrocarbon industry, and in return, more than half of this revenue is invested in the hydrocarbons sector more and governed new current expenditures due to new administrations. The impact of trade opening is significant only on current expenditures. This is clear evidence that current

expenditures are sensitive to economic integration and could be interpreted by additional state support for job creation. Algerian imports are mainly embodied by consumer products. This is a policy of reducing charges of granting subsidies. Regarding public debt, this has a positive impact on current expenditure. Indeed, the public debt is an element exclusively involved in the policy of financial repression. However, if the level of repression of the financial system increases, the public debt increases also and produces the increase in operating expenses. The impact of the unemployment rate is significantly positive on current expenditures. Falling interest rates are erecting private investment, which absorbs unemployment on the one hand and leads to the banking deficit which financed by current expenditures. This result highlights the idea that the policy of financial repression based on low ratios eliminates unemployment. The urbanization density is positive on capital expenditure. The urbanization process generates new demands: a force is needed to take advantage of the new productivity gain for the country's good development.

5. Conclusion

This article has attempted to find the impact of the repression of the financial system on the economic structure of public expenditure in Algeria. The analysis was carried in elasticity terms at first, and then checked by an empirical second analysis using a set of factors determining the economic structure of expenditures in the literature. Two theoretical models linear regression reveal that the financial repression policy in Algeria has a very significant role in determining the public expenditure disaggregated. Although the main objective is justified for this research, the results obtained on the implication process of the economic structure of the public expenditures in the financial repression policy consider themselves as an attempt, of an immense importance for the taking of the authorities' decision. What we essentially get out of the facts about the political implications: (i) in a financial repression policy context, the monetary authority ensures the dynamic of financial intermediation with the support of the budgetary authority. As a result, the government's disengagement which should complement private investment will have a negative impact on effectiveness of this latter. (ii) The public borrowing through financial repression is not bad, provided it is channelled towards the construction of economic structures (Complementarities between public investment and private investment) that will increase productivity and put the country on the path of growth and development.

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APPENDIX

Governance index

Kaufmann et al. (2007) begin to provide global governance data only from 1996. As a result, a linear interpolation was applied for the period 1990-1995. Based on the six global governance indicators, the Pearson correlation matrix and Bartlett's test, show that the indicators are strongly correlated, which allows us to apply the principal component analysis.

Table A: Main components matrix

	F1	F2	F3
CC	0,440	-0,061	0,846
GE	0,566	0,110	-0,328
SP	0,509	-0,201	0,000
RQ	0,222	0,784	0,315
RL	0,421	0,573	-0,278
VA	0.230	0.152	0.882

Source: XL stat

CC: corruption control; GE: efficiency of public authorities; SP: Political stability and absence of violence; RQ: regulatory quality; RL: protection of property rights VA: voice and responsibility. The synthetic governance index is obtained by the linear combination of the first three main components (F1, F2 and F3) which account for 89.519% of the total inertia of governance. The formula of the synthetic governance index for Algeria is therefore:

$$\text{Gov} = 1.225 * (\text{CC}) + 0.347 * (\text{GE}) + 0.308 * (\text{SP}) + 0.877 * (\text{RQ}) + 0.716 * (\text{RL}) + 1.264 * (\text{VA})$$

Table B: Descriptive statistics and data source

	Period	Mean	Std.dev	Min	Max	Data source
EXR	1980-2015	463657	569983	20242	1993594	(10 ⁶ DA) At constant price (100=1980) from Algerian Ministry of Finance data «Statistical retrospective 1963 – 2015». DGPP, 2016.
EXC	1980-2015	258455	331804	15964	1042701	(10 ⁶ DA) At constant price (100=1980) from Algerian Ministry of Finance data «Statistical retrospective 1963 – 2015». DGPP, 2016.
IRF	1980-2015	72,57	1,32	55,84	86,24	Calculated by the author
GDP	1980-2015	2144287	2352167	67739	7171779	(10 ⁶ DA) At constant price (100=1980) from Algerian Ministry of Finance data «Statistical retrospective 1963 – 2015». DGPP, 2016.
OPEN	1980-2015	25,83	0,64	18,41	35,95	(%) IMF Government Finance Statistics (GFS).2016
UNEMP	1980-2015	18,48	1,03	9	29,8	(% Labour force). IMF Government Finance Statistics (GFS). 2016
DB	1980-2015	296410	183914	53520	741806	(10 ⁶ DA) At constant price (100=1980) from Algerian Ministry of Finance data «Statistical retrospective 1963 – 2015 ». DGPP, 2016.
POP	1980-2015	42,19	1,38	28	56,46	(% total population). IMF Government Finance Statistics (GFS).2016
GOV	1980-2015	2.99	0.73	-4.57	1.83	Calculated by the author from world Bank data. Worldwide Governance indicators (WGI).2017