Prospective Analysis
Of The Algerian Economic Growth
By 2025: Structural Analysis

Dr. Rachid Toumache, ENSSEA, Algeria
Dr. Khaled Rouaski, ENSSEA, Algeria

ABSTRACT

The aim of this study is to assess the economic growth in Algeria and to determine the set of variable impacting it on different periods. It relies on structural analysis approach based on an investigation method using the software MICMAC (matrix of cross-influence, applied multiplication to a ranking) which was developed by the Institute of Computing Innovation 3IE following the request of Investigation Laboratory on Prospective, Strategy and Organization LIPSOR. The structural analysis can define the key variables of the system (VCS) to catch the most influential variables on economic growth during three time intervals: the near past (direct impact), the actual period (indirect influence) and the long run (potential indirect impact) bearing in mind that the horizon of our study is 2025. The results show the most influential variables ranked during each period as follows: The near past (the direct influence): the economic system, public spending, the regulation, foreign reserves and price of oil barrel, unemployment, inflation and SMEs. The actual period (the indirect influence): the economic system, business climate, FDI, the price of the oil barrel, active population, occupied population, external debt. In addition to other variables having a less influence: unemployment, SMEs, inflation and foreign trade. The long run (potential indirect influence) by 2025: The economic system, public spending, the regulation, foreign reserves, unemployment, FDI, inflation, business climate, currency, occupied population, the price of the oil barrel, saving. Other variables have a moderate influence: national security, capital, exchange rate, financial system, active population, IT, informal sector, SMEs, external trade, external debt, demographic growth and the interest rate.

Keywords: Economic Growth; Growth Process; Prospective; MICMAC; VCS; Direct And Indirect Potential Influence; Algerian Economic Horizon Of 2025

1. INTRODUCTION

The Algerian economy has the potential of being part of emerging countries either by its human or material potentials, its important resources permit to fund real future perspectives. Nowadays, the Algerian economy returned to the growth path after being on the verge of suffocation.

The State's means of intervention is consolidated in the favor of sustained reconstitution of macroeconomic equilibriums. The implementation of the five-year plan of growth-support (2005-2009) to strengthen the growth allowed generating the growth via factors of supply and demand but also by providing areas of intervention to public investments and national companies. In addition to their multiplier effects and the sensitive impact on a range of fields (employment, infrastructures, revenues) the evaluation of these plans cannot deduct the return of the State as the main actor of the economic and social life. Also, Algerian authorities have conducted several economic policies during different periods and according to the prevailing situations, with the main objective of economic overhaul and to ensure an economic start to improve the population's living conditions.

The 2000-2010 decade was marked by an improvement in macroeconomic aggregates, favorable oil market with rising oil prices, and a very low foreign debt. The government, aware of the need to develop and strengthen the hydrocarbon sector, revived the industrialization and different public investment programs funded by the public treasury were launched to achieve the development's goals.

The first plan of 2001-2004 is that of supporting economic recovery, the background is that of 2005-2009, complementary to support growth (PCSC), followed by 2010-2014 came in addition to and aimed mainly the development of the industrial sector, with special support for the development of SMEs and SMIs.The new five-year development plan 2015-2019 is in line with the previous development plans and follows the president instructions aiming at making it more complete and ensuring national and local requirements to improve its impact on local development and human capital, with a stress to enhance the competitiveness of all economic sectors.

2. IDENTIFYING THE VARIABLES, SAMPLE CHARACTERISTICS AND PROSPECTIVE ANALYSIS

To engender the entire variable influencing the growth process in Algeria, we will try the structural analysis by applying MICMAC method with the following steps:

2.1 Identifying The Variables

This step consists of choosing in a relative exhaustive way the elements of the system being the most pertinent in order to reach the goal: determining the key variables of the system (the Algerian economic growth). Here, we identified a set of variables influencing the Algerian economic growth (whether positively or negatively). These variables cover several fields: economic, politics, social.

Table 1. Abbreviations and Descriptions Variables

N	Complete Name	Abbreviation	Description
1	Active Population	Pop. Act	All persons providing available labor to the production of goods and services
2	Capital	Cap	Financial and non financial assets held by economic agents , material capital
3	Foreign Reserves	Res, Chag	Amount in foreign currencies of the external trade surplus
4	IT	Tic	Information technologies and communication, mobile phones ,internet ,PC , radio,…
5	Inflation	Inf	General continue increase of goods and services price level
6	FDI	Ide	The process of creating businesses or the entrepreneurships (private investment)
7	Public Spending	Dep. Pub	A lever to act on the economic / social life
8	Business Climate	Clm.Affr	Management of public affairs and the whole problems hindering it: bribery, governance.
9	Financial System	Sys.Fin	The financial institutions and the capital markets ensuring funds
10	Regulation	Rg L	Different laws, regulation of the State for political, economic field
11	FDI	Ide	Access of foreign investors to invest in Algeria
12	External Trade	Imp.Exp	Trade between Algeria and the rest of the world or the external trade in terms of imports/exports
13	Financial Crisis	Crs.Fin	Supprime crisis (2008)
14	External Debt	Det.Ex	External debt of Algeria, expecially toward the World Bank
15	Informal Sector	Sect. Inf	Unstructured activities by laws/ regulation
16	Exchange Rate	Tx.Chang	Equivalency of foreign currencies vis -à-vis Algerian Dinar
17	Interest Rate	Tx. Intrt	Rate imposed by the financial system :central bank and commercial banks
18	National Security	Secrt. Ntl	Political and social stability and the influencial factors
19	Geographic Localisation	Loc. Geo	The geographic position of Algeria and its influence on the Economic activity
20	Demographic Growth	Crss. Demg	Growth rate of the population
21	Literacy Rate	Tx.Alph	Access to education or the enrollment level of population
22	Innovation R&D	Invt. R/D	Investment in knowledge and creating new technologies to Produce goods and services
23	Economic System	Sys. Eco	The economic policy followed by the State to ensure a sound economic management
24	Unemployment	Chmg	Inactivity of People Seeking A Job
25	Saving	Eprg	Share of Households' Savings
26	Currency	Mne	Exchange instrument between economic agents
27	Oil Barrel Price	Prx. Brl	Price of oil barrel at world markets
28	Occupied Population	Pop.Occp	Population having a job and producing goods and services

The goal was to make the economy is supported by private and public companies, dynamic and open to various forms of foreign partnerships that contribute to the diversification of domestic production, decreasing import bill reduction unemployment, all this by encouraging the adoption of investment policies with incentive measures and facilitators. There was the promulgation of the orientation law for the promotion of SMEs.

Also, as part of its international economic openness, Algeria adopted a policy of encouraging foreign investment and to sign balanced partnerships, to benefit from technology transfer, acquire the know-how and managerial skills necessary to diversify domestic production and export. So the important question today in Algeria about the economic outlooks.

2.2 The Input Matrix (Matrix of Direct Influence)

The structural analysis first serves as a tool structuring ideas. It gives the possibility to describe a system via a matrix putting in relation all its constitutive elements. With the Direct Influences Matrix (DIM), we can describe direct influence relationships between the variables of our system.

Table 2. Direct Influence Matrix

	1: pop.act	2: cap	3: res.chag	4: tic	5: infl	6: pem	7: dep.pub	8: clm.affr	9: sys.fin	10: rgl	11: ide	12: imp.exp	13: crs.fin	14: det.ext	15: sect.inf'	16: tx.chang	17: tx.intrt	18: scrt.ntl	19: loc.geo	20: crss.demg	21: tx.alph	22: invt.r/d	23: sys.eco	24: chmg	25: eprg	26: mne	27: Prx.brl	28: pop.occp
1: pop.act	0	0	0	1	1	2	3	1	1	2	1	2	0	0	3	0	1	2	0	1	1	1	2	3	3	0	0	2
2: cap	2	0	2	0	2	2	2	1	1	3	2	2	1	2	2	0	2	1	0	1	3	1	1	2	2	1	0	2
3: res.chag	2	P	0	2	0	2	P	1	2	2	2	P	2	3	1	0	1	1	0	0	2	1	2	1	2	2	0	3
4: tic	2	2	1	0	0	2	2	1	2	2	1	2	0	0	1	0	0	1	0	2	3	2	2	2	0	0	0	2
5: infl	1	1	2	1	0	2	P	1	1	3	1	1	1	0	2	2	2	1	0	0	0	0	1	0	2	3	0	2
6: pem	2	1	1	2	1	0	2	1	1	1	2	2	0	0	2	0	2	0	0	1	0	1	0	2	1	2	0	2
7: dep.pub	2	P	3	1	2	2	0	2	1	2	2	2	1	0	2	0	1	2	0	1	2	2	3	2	1	3	0	2
8: clm.affr	2	2	2	0	2	2	2	0	2	3	3	1	0	0	1	0	0	1	0	0	0	0	2	2	0	0	0	1
9: sys.fin	1	2	2	1	1	3	0	2	0	1	2	1	2	0	2	2	3	1	0	0	0	1	1	2	3	2	0	1
10: rgl	3	P	3	2	2	2	P	2	2	0	2	3	1	3	2	2	2	P	0	0	2	1	3	2	0	2	0	0
11: ide	2	3	2	2	2	1	2	1	1	2	0	2	0	1	1	0	2	1	0	0	0	1	2	2	0	0	0	1
12: imp.exp	1	1	3	1	2	2	2	0	0	2	1	0	0	1	2	0	0	1	0	0	0	0	1	2	0	0	2	1
13: crs.fin	1	2	P	2	1	1	1	0	2	1	1	2	0	1	0	2	1	0	0	0	0	1	0	0	1	0	3	0
14: det.ext	1	1	3	1	1	1	1	1	0	2	2	2	1	0	0	1	0	2	0	0	0	0	2	1	1	0	0	1
15: sect.inf	2	1	1	1	2	2	2	1	1	2	0	1	0	0	0	2	1	2	0	1	1	0	1	3	1	0	0	2
16: tx.chang	0	3	2	1	3	2	3	1	2	1	1	3	0	2	2	0	2	0	0	0	0	0	1	1	3	2	2	0
17: tx.intrt	0	0	0	0	2	2	0	0	2	2	1	0	0	1	2	0	0	0	0	0	0	0	0	2	2	2	0	0
18: scrt.ntl	1	2	1	2	1	2	2	2	2	3	3	2	2	2	2	0	2	0	0	2	2	2	1	2	1	1	0	0
19: loc.geo	1	2	0	0	1	1	2	0	0	0	2	1	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
20: crss.demg	3	1	1	2	2	2	2	0	0	2	2	2	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	2
21: tx.alph	2	1	0	1	0	2	2	1	0	1	1	0	0	0	2	0	0	1	0	1	0	1	1	2	0	0	0	1
22: invt.r/d	1	2	0	2	0	2	2	0	0	1	2	1	0	0	0	0	1	1	0	1	2	0	0	1	0	0	0	1
23: sys.eco	2	2	3	3	3	2	3	P	2	3	2	2	2	3	2	0	2	1	0	1	1	2	0	3	1	2	1	2
24: chmg	3	2	0	1	2	3	3	0	1	2	1	1	0	0	2	0	2	2	0	2	0	1	1	0	3	0	0	P
25: eprg	0	1	0	2	2	1	0	0	2	1	1	1	0	1	0	2	0	0	0	0	0	0	1	1	0	1	0	0
26: mne	0	1	2	1	3	1	1	0	2	3	1	2	0	0	1	P	3	0	0	0	0	0	1	1	2	0	0	0
27: Prx.brl	0	2	P	1	0	0	3	0	0	3	1	2	2	2	0	1	0	0	0	0	0	0	3	1	0	0	0	0
28: pop.occp	1	1	1	2	2	1	P	0	1	2	0	1	0	0	1	0	1	2	0	1	1	1	1	3	2	0	0	0

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The filling of the matrix is generally qualitative.

0: means no influence, inexistent relationship between the variables i and j.
1: weak influence
2: medium influence
3: strong influence
P: potential influence.

We recall that for building the structural analysis matrix, we put the variables in rows and columns. We fill the matrix either in rows by noting the influence of each row variable on all other column variables, or in columns by noting the variables' dependence in columns to those in rows.

2.3 Characteristics of the Dim

The table presents the numbers 0, 1, 2, 3, P of the matrix and displays the rate of filling calculated by the ratio of a number of DIM values other than 0 and the total number of the matrix elements.

Table 3. Characteristics of the DIM

Size of the matrix	28
Iteration number	4
Number of 0	286
Number of 1	186
Number of 2	235
Number of 3	65
Number of P	12
Total	498
Rate of filling	49.52041%

The matrix rate of filling is equal to the number of boxes of 1 by the total number of boxes.

Table 4: Stability Iterations of the DIM

Iteration	Influence	Dependence
1	88 %	94 %
2	102 %	102 %
3	100 %	99 %
4	100 %	100 %

If proved that each matrix should converge to stability within a certain number of iterations (generally 4 or 5), these iterations then allow to classify the influences and the dependencies and the variables of the DIM matrix.

The above classification consists of summing up the row variables intensity as well as for the column variable. The variable most influencing the others (row sums) are called key variable of the system: the financial system: public spending, the regulation, foreign reserves, price of the oil barrel, unemployment, inflation and SMEs.

Table 5. Key Variables of the System

N°	Variable	Column's total	Row's total
1	Active population	40	34
2	Capital	40	36
3	Foreign reserves	36	34
4	IT	40	29
5	Inflation	39	35
6	SME	52	29
7	Public spending	50	41
8	Business climate	20	27
9	Financial system	32	36
10	Regulation	51	41
11	FDI	40	31
12	External trade	45	31
13	Financial crisis	16	23
14	External debt	22	27
15	Informal sector	37	32
16	Exchange rate	12	37
17	Interest rate	30	18
18	National security	23	42
19	Geographic localisation	0	8
20	Demographic growth	14	25
21	Literacy rate	22	23
22	Innovation R&D	21	20
23	Economic system	32	50
24	Unemployment	44	32
25	Saving	32	17
26	Currency	23	31
27	Price of barrel	10	39
28	Occupied population	28	25
	Totals	851	851

3. RESULTS

3.1 Descriptive Statistics

This plan represents the influences and dependencies between variables. Variables' coordinates are the sums of influences and dependencies reckoned starting from the DIM matrix. It is, therefore, to show the most influential variables and the most dependent in the near past. The plan could be divided into five sectors:

- **Sector 1:** Variables carry on a strong influence and are less dependent, they are explanatory variables conditioning the remaining system: saving and the interest rate.
- **Sector 2:** Variables are both influential and strongly dependent, these are shift variables unstable by nature. Each action on these variables will have incidences on the others and a feedback effect on themselves: public spending, external trade (import/export), SMEs, the regulation, unemployment, FDI, active population, informal sector, IT, inflation, capital, foreign reserves, financial system and the economic system.
- **Sector 3:** Variables are less influential and strongly dependent, these are result variables. Their evolution could be explained by other variables of the sector 1 and 2 (national security and exchange rate).
- **Sector 4:** Variables are both less influential and less dependent, relatively disconnected from the system. We call them autonomous variables: literacy rate, geographical localization, innovation R&D, financial crisis.
- **Sector 5:** Variables are moderately influential or dependent, called squad variables (determinant): external debt, business climate, demographic growth, the price of the oil barrel, currency.

Figure 1. Plan of Direct Influence /Dependence
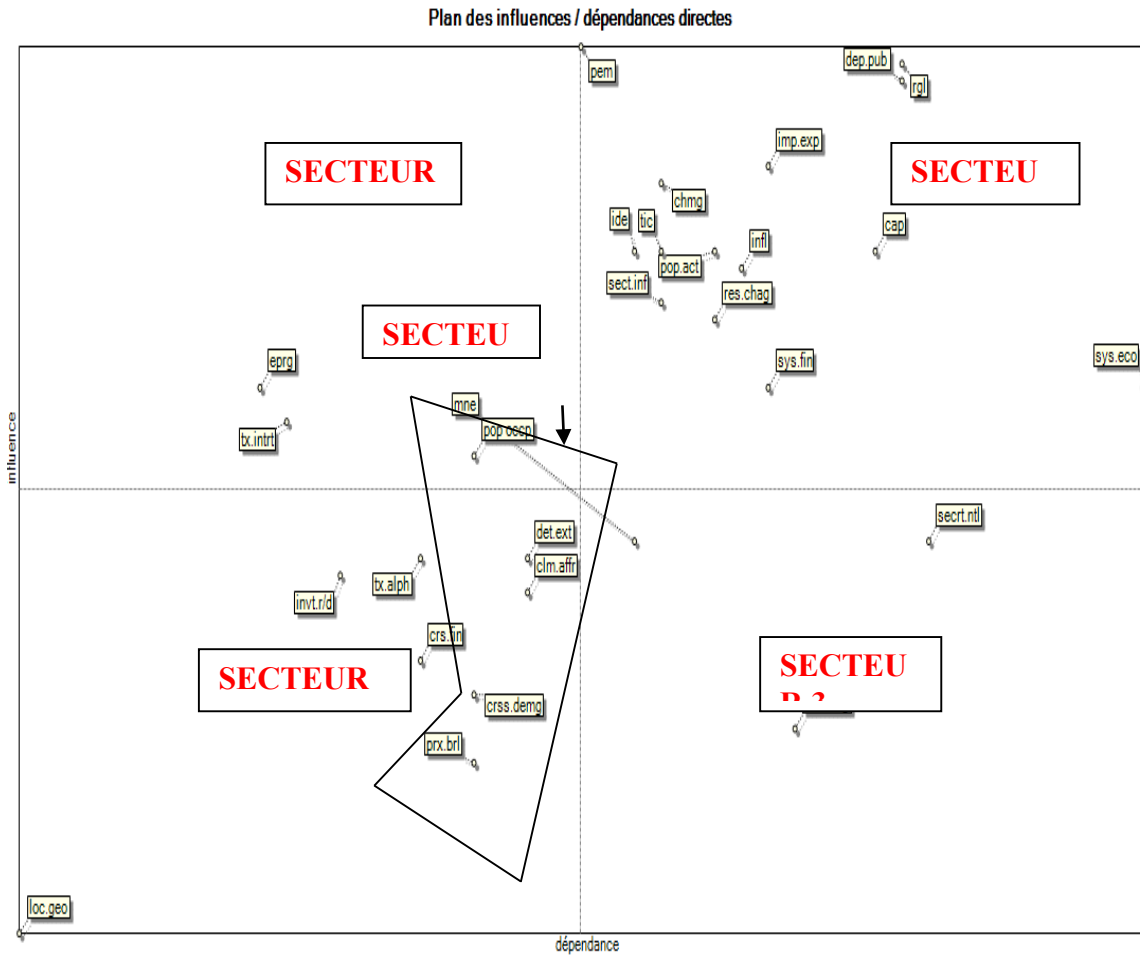
The matrix of Indirect Influences (MII) provides a new classification of variables showing the most important of the system. Indeed, we detect hidden variables. The plan of indirect influences represents indirect influences and dependencies between variables and the coordinates corresponding to the sums of influences and dependencies, reckoned from the MII matrix.

Figure 2. Plan of Indirect Influences / Dependencies

Plan des influences / dépendances indirectes
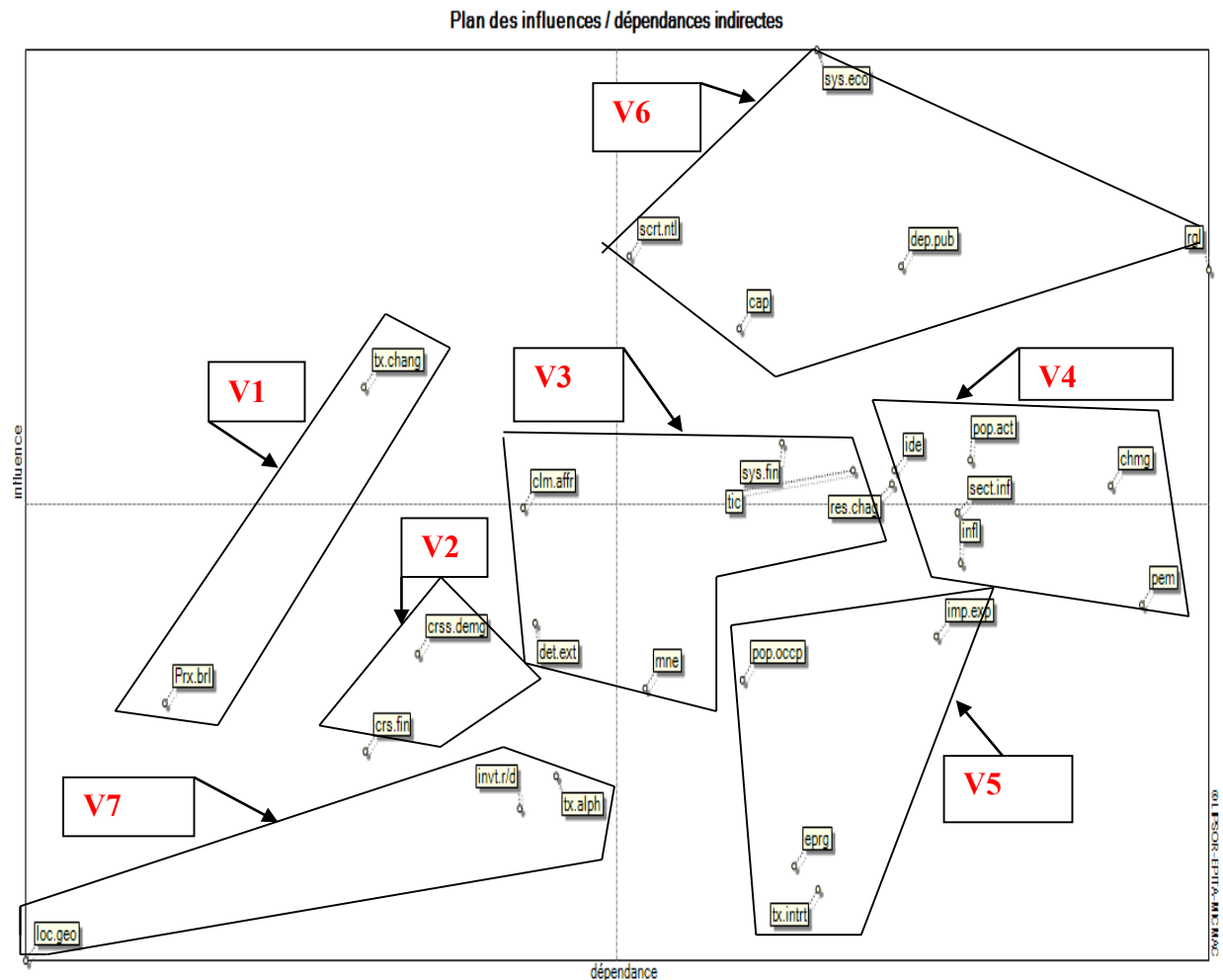
We notice from this plan that the system (Algerian economic growth) is *Unstable and changing system* with variables distributed in the second cross line with a few input/output variables. Key variables evolve the system without coherence, making it unmanageable. This instability is the origin of oppositions and instabilities of the systems' actors. Hence, we can determine from this plan the set of variables influencing the Algerian economic growth:

- **Input Variables (V1),** these variables will determine the system's performance. Was the *Price of oil barrel*: an variable for an environment-based scenario: its external characteristic makes it dependent on the system, and by contrast determinant of the system's scenarios. The Algerian economy remains dependent on oil revenues, 97% of exporting revenues and 70% of the State's budget come from the oil revenues. *The exchange rate* In 2011, the Dinar was traded as follows :1 US Dollar =72.39 DA, 1Euro = 102.51 DA and the *Shift variables,* which are intermediary variables. Moderately influential and dependent. They account for the system regulation.
- **The Second Variables (V2)**: they can have a long-run effect or accompanying the evolutions: *External debt*: the gross external debt of Algeria stands for only 2.4% of GDP in 2012, and is expected to maintain in 2013. *Demographic growth*: Algerian population growth rate is 1,44% (after being 3,14% in 1971-1980). *Financial crisis*: its impact is minor as the budget deficit was just 4% of GDP in 2011.
- **The Regulators (V3)**: They intervene in the functioning of the system, constituting good indicators for

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the system's evolution. They are: *Business climate*: Algeria engaged reforms to facilitate creation of businesses and improve the framework related to these activities: revising the commerce code, obtaining commerce registries, relieving tax pressures on businesses. *Financial system:* absence of a foreign exchange market, the direct intervention of the Bank of Algeria (revising the credit and money act) are due to the inefficiency of the system. *Foreign reserves:* Foreign reserves knew a sharp increase of more than 110.18 billion us dollar in 2007, end-2012 forecasts are about 205.2 billion us dollar.

- **Output Variables**: They translate the consequences and the results of the system's actors.
- **The Objectives (V4)**: They enable to define medium-long term points for the system evolution: *FDI*: Algeria is less attractive for the FDI following restrictive measures toward investors: the 51-49 investment rule, the examination of every foreign investment by the National Investment Council, obligation to open the social capital to Algerian partners. *Active population, unemployment:* Unemployment hit youth population with a rate of 21.5% for the aged between 15 and 24 years old. *Inflation:* recorded a significant increase following wage increase and tensions on foodstuff prices, the inflation rate are expected to recede to 5% in 2013.
- *SMEs***:** Private companies contribute to 75% of the non-hydrocarbon GDP and by 55% in the added value, the number of SMEs increases despite the inadequate environment, passing from 180,000 in 2001 to 600,000 in 2011.
- **The Sensitive Variables (V5)**: They interpret the final frequencies of the evolutions : *Currency:* following sharp wage increase in the public administration, the State operated a 10% devaluation of the Dinar vis-à-vis the Euro and the US Dollar. *Occupied population:* it passed from 6 million people in 2006 to 9.3 million in 2009. *Saving, interest rate:* the Algerian banking system contributes poorly to the economy's need of funding. *External trade:* Algerian exports reached 61.6 billion US Dollar in 2012, while imports slowed by 3.6% to 38.4 billion US Dollar, generating a trade surplus of 23.2 billion US Dollar.
- **The Issues (V6) :** key variables. They are at the heart and the origin of the system's evolution. : *National security*: it improved despite terrorist attacks (case of *Tiguentourine*) and the recent social strikes. *Economic system*: the economic policies seem to strengthen protectionism measures against FDI and imports (51-49 investment rule, 25% tax on bonuses, 30% Customs duties. *Public spending:* 286 billion US Dollar allocated to the 2010-2014 public investment plan in addition to many subsidies which account for 32% of GDP.
- **Autonomous Variables** (V7): these are variables weakly connected to the system. They are not determinant for the system future: *The geographical localization*: exploitation of natural resources, strategic location and the climate. *The literacy rate and innovation R&D*: despite a 97% rate of school enrollment (8 million pupils) and more than 1.3 million students, the education quality remains weak and needs an improvement (the university rankings shows this recommendation).

Figure 3 illustrates the series of relationships between variables influencing the Algerian growth and their indirect influence.
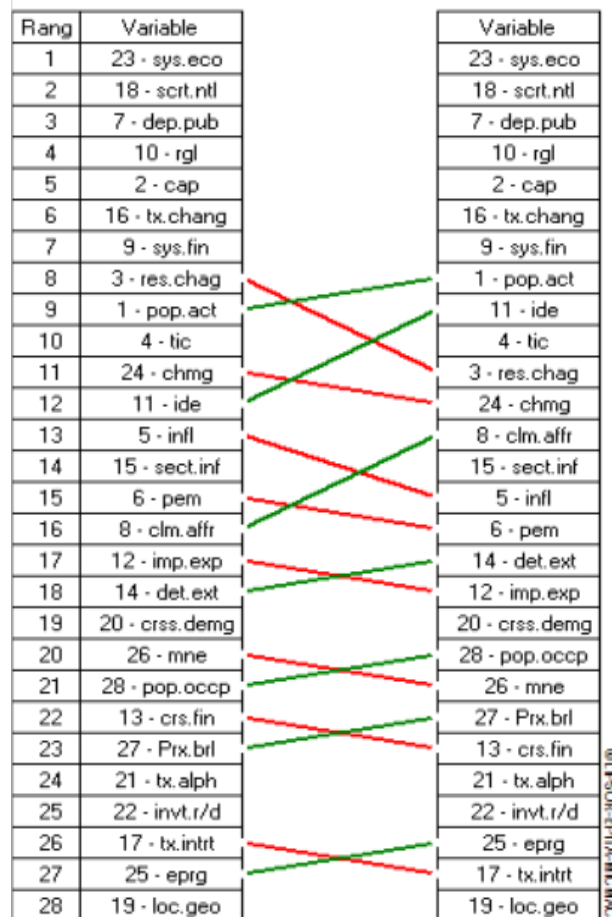
Figure 3. Indirect Influences
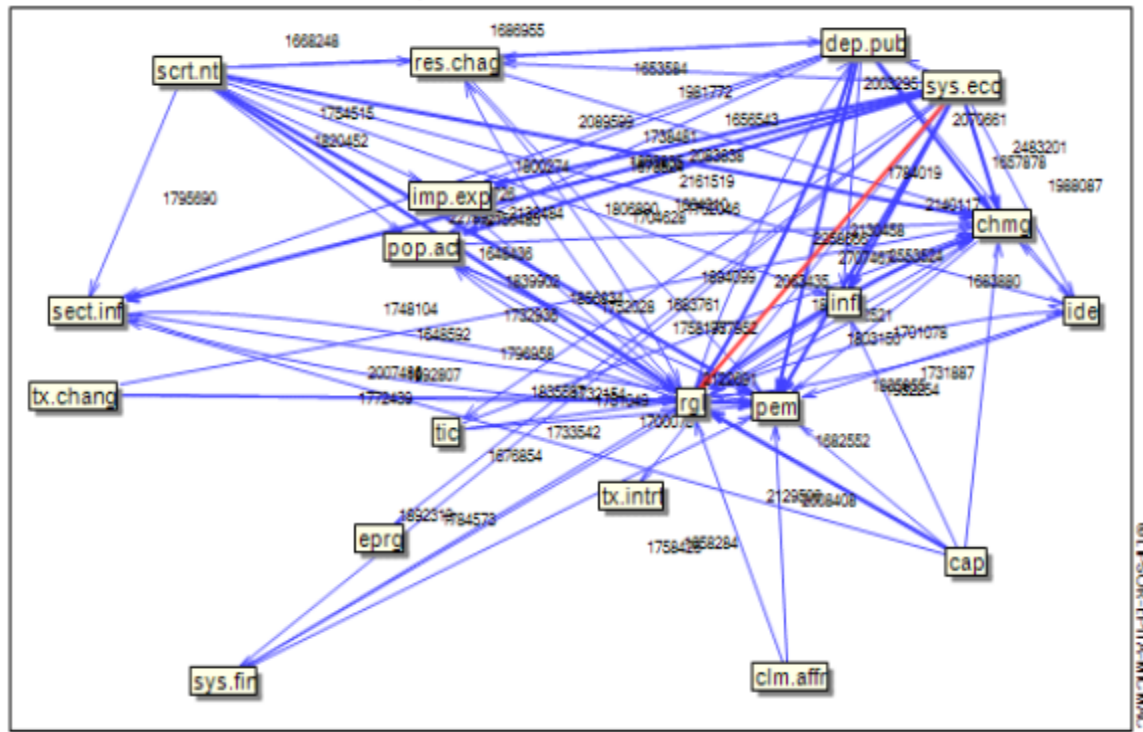
- - - - Influences les plus faibles
——— Influences faibles
——— Influences moyennes
——— Influences relativement importantes
——— Influences les plus importantes

We notice a set of influences: _Most important influence_ is the influence of the economic system on the regulation. The _Relative important influences_ which are the influence of foreign reserves on public spending, national security on regulation and SMEs, the economic system on the informal sector and on external trade. _The Moderate influences_ which are the national security on the informal sector, the exchange rate on unemployment. And the _Weak influences_ which are the IT on unemployment.

3.2 Results Of Structural Analysis

First, determining key variables of the system, In this classification we will determine the most influent variables (key variables of the system) on the Algerian economic growth.

Figure 4. Classification of Indirect Influences

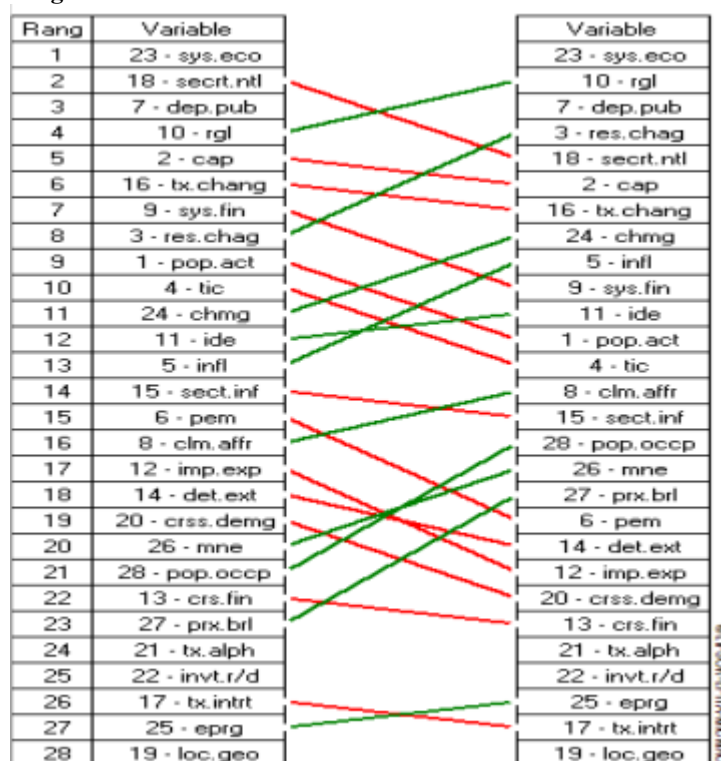| Rang	Variable		Variable
1	23 - sys.eco		23 - sys.eco
2	18 - scrt.ntl		18 - scrt.ntl
3	7 - dep.pub		7 - dep.pub
4	10 - rgl		10 - rgl
5	2 - cap		2 - cap
6	16 - tx.chang		16 - tx.chang
7	9 - sys.fin		9 - sys.fin
8	3 - res.chag		1 - pop.act
9	1 - pop.act		11 - ide
10	4 - tic		4 - tic
11	24 - chmg		3 - res.chag
12	11 - ide		24 - chmg
13	5 - infl		8 - clm.affr
14	15 - sect.inf		15 - sect.inf
15	6 - pem		5 - infl
16	8 - clm.affr		6 - pem
17	12 - imp.exp		14 - det.ext
18	14 - det.ext		12 - imp.exp
19	20 - crss.demg		20 - crss.demg
20	26 - mne		28 - pop.occp
21	28 - pop.occp		26 - mne
22	13 - crs.fin		27 - Prx.brl
23	27 - Prx.brl		13 - crs.fin
24	21 - tx.alph		21 - tx.alph
25	22 - invt.r/d		22 - invt.r/d
26	17 - tx.intrt		25 - eprg
27	25 - eprg		17 - tx.intrt
28	19 - loc.geo		19 - loc.geo

The above figure brings to light the following classification:

- **The Direct Classification,** It tells the direct picture of the factors' importance giving the situation of the Algerian growth: the economic system, the national security, public spending, capital, the regulation, the exchange rate and the financial system.
- **The Indirect Classification or MICMAC,** It allows to relativist the immediate importance of certain phenomenon and gives the actual situation bear in mind the ongoing evolution process. The indirect classification of the influential variables on the economic growth permits to reveal the following variables: the economic system, national security, public spending, capital, regulation, exchange rate and the financial system. Green lines represent the changing location of variables upward when variables move upward it means they have strong indirect influence: *Business climate* (from 16th to the 13th position) : some specific measures adopted for the business climate: reducing the number of papers necessary to create businesses. *FDI* (from 12th to the 9th position) won 4 positions: new measures on the foreign investments framework might be a hinder to national and foreign private investments. The p*rice of oil barrel*: The Algerian economy remains heavily relying on the hydrocarbon sector (37% of GDP in 2011) and to the evolution of oil prices (the average price was 107 US Dollar/barrel, up from 77 US Dollar/barrel in 2010) . *The active population, the occupied population* (won one position): these variables express the urgent need to take care of social conditions in terms of training, social security. *The external debt:* Algeria improved its external debt sustainability that is estimated to be 5.4 billion US Dollar in 2009 (2.7% of GDP). Red lines show less influential variables: *Unemployment*: the unemployment rate diminished from 30% in 2000 to 10% in 2010. *SMEs:* continuing reforms to improve Algeria's business climate favoring the SMEs creation: easing

access to funding and improve administrative procedures. _Inflation:_ Inflation remains subdued thanks to the prudent monetary policy adopted by the Bank of Algeria. The inflation rate was 4% to 5% in 2011. _Currency:_ as it is an output variable (sensitive) undergoing the changes of other variables as the money and credit act. _Financial crisis:_ the financial crisis did not impact our economy in a direct way because of the low budget deficit (3.7% of GDP in 2012) and the oil revenues.

- **The Classification of Indirect Influence and Indirect Potential** permits to determine the most influential on the Algerian economic growth by 2025 (figure.5). The indirect potential classification was obtained by taking account of the direct and indirect relations, the effects of the potential relations associated to new variables or to possible breaks at the horizon of study. In this classification, we determine the most influent variables (key variables of the system) on the Algerian economic growth by 2025. _Economic system_: remains a determinant, and we record it by the State's return to production activities. This option seems a direction of the new programs expecting important investments on upgrading the industrial sector, the revitalization of big public industrial groups as SNVI (engines), SAIDAL (pharmaceutics), ENIE (electronics), PMA (agriculture machinery) and ENMTP (public construction). _Public spending_: finishing big projects already launched, especially in transportation (railroads, highways), water and energy, and the launching of new projects: realizing 2 million houses, the east-west highway, water transfer in the southern region. _Regulation_ (from 4th to the 2nd position): The main weaknesses are at the level of instability of the legal framework, long administrative procedures, and SMEs difficult access to banking funding, rigid labor legislation, and complex fiscal procedures. _Foreign reserves_ (won 4 positions: from the 8th to the 4th) Algeria's foreign reserves to reach 205 billion US Dollar in the coming years which ensures funding big investment programs and improve the social conditions of the population. _Unemployment_ (from the 11th to the 8th position) : Algeria still faces major social challenges related to unemployment. Algeria's inflation rate remains the highest among the Mediterranean countries (Algeria's methodology to determine unemployment does not obey ILO norms and overestimate its rate). _FDI_ (from 12th to 11th position) : Government policy to deter foreign investors especially the one limiting the foreign participation to 49% when realizing partnerships with local companies. _Inflation_ (from 13th position to the 9th: won 4 positions): Inflation level to see a mild increase due to wage increases and retirement pensions, a spike in world foodstuff markets (cereals, sugar, milk). _Business climate_ (from 16th to the 14th position): it constitutes the important constraint impeding the growth in Algeria as a set of regulations slow down the private activity (the variable _regulation_ expresses this trend). _Currency_ (from 20th to the 17th position) : The Bank of Algeria intervenes to weaken the currency to control inflation (inflation is one of the obstacles to economic recovery) and to reduce imports. _The price of barrel_ (from 23th position to the 18th: won 5 positions): The economy relies heavily on the hydrocarbon sector and remains vulnerable to external shocks (production slowing down, new sources of energy as shale gas and the great gas potential in Russia, OPEC quotas), oil revenues and high oil prices are government obstacles to pass reforms to diversify the economy. Moreover, the red lines illustrate the diminution of certain variables' influence at the same horizon of study. _National security:_ The set of measures trying to improve the security: national reconciliation, peace charter, cooperation against terrorism with other countries. These will improve the investment climate. _Exchange rate, interest rate, and the financial system:_ inadequate efficiency of the banking/financial sector impede the needs of funding for the national economy. _Active population:_ its influence remains persistent following the inadequate training, its aptitude for changing and the entrepreneurship spirit, multitude of social problems: healthcare, poverty, education. _Informal sector_: recent measures implemented by the government (building ne markets, helping traders by fiscal incentives, simplifying commerce registry procedures) will diminish the size of the informal market. _SMEs_: The business climate constitutes a hinder for the private sector development and the creation of SMEs notably the access to funding, administrative procedures, fiscal taxes on companies. _External debt_: Algeria follows a prudent management of its debt thanks to prudent foreign reserve placement. The oil revenues could offset the impact of external debt.

Figure 5. Classification of Indirect Influence / Indirect Potential

Rang	Variable		Variable
1	23 - sys.eco		23 - sys.eco
2	18 - secrt.ntl		10 - rgl
3	7 - dep.pub		7 - dep.pub
4	10 - rgl		3 - res.chag
5	2 - cap		18 - secrt.ntl
6	16 - tx.chang		2 - cap
7	9 - sys.fin		16 - tx.chang
8	3 - res.chag		24 - chmg
9	1 - pop.act		5 - infl
10	4 - tic		9 - sys.fin
11	24 - chmg		11 - ide
12	11 - ide		1 - pop.act
13	5 - infl		4 - tic
14	15 - sect.inf		8 - clm.affr
15	6 - pem		15 - sect.inf
16	8 - clm.affr		28 - pop.occp
17	12 - imp.exp		26 - mne
18	14 - det.ext		27 - prx.brl
19	20 - crss.demg		6 - pem
20	26 - mne		14 - det.ext
21	28 - pop.occp		12 - imp.exp
22	13 - crs.fin		20 - crss.demg
23	27 - prx.brl		13 - crs.fin
24	21 - tx.alph		21 - tx.alph
25	22 - invt.r/d		22 - invt.r/d
26	17 - tx.intrt		25 - eprg
27	25 - eprg		17 - tx.intrt
28	19 - loc.geo		19 - loc.geo

4. CONCLUSION

After different steps of applying structural methods that allow showing essential variables in the process of Algerian economic growth, during the three periods of time, we obtain the following results:

- ***The near past:*** the price of the oil barrel, the economic system, unemployment, public spending, regulation, foreign reserves, inflation and SMEs.
- ***The actual period:*** the price of the oil barrel, the economic system, business climate, FDI, active population, occupied population, external debt. Also, other variables have a less influence: unemployment, SMEs, inflation and external trade.
- ***The long term (the horizon of 2025):*** foreign reserves, inflation, economic system, public spending, regulation, unemployment, FDI, business climate, currency, occupied population, the price of the oil barrel and saving. Other variables have a moderate influence: national security, capital, exchange rate, financial system, active population, IT, informal sector, SMEs, external trade, demographic growth, interest rate, and external debt.

AUTHOR BIOGRAPHY

Rachid Toumache is an Assistant Professor of Economics at National High School of Statistics and Applied Economics of Algeria. His research topics include Time Series, Econometrics and Modeling of Macroeconomics. He has published his recent article in referred Journal such as Journal of Business and Retail Management Research (JBRMR), Vol. 9 Issue 1,pp.64-72. (www.jbrmr.com) (Indexed by SCOPUS) [UK].

Khaled Rouaski is an Assistant Professor of Economics at National High School of Statistics and Applied Economics of Algeria. His research topics include Applied Economics, Development Economics and Digital Economics. he has published his recent article in referred Journal such as Journal of Business and Retail Management Research (JBRMR), Vol. 9 Issue 1,pp.64-72. (www.jbrmr.com) (Indexed by SCOPUS) [UK].

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