

2007-1974

Statistical study of the building materials sector's contribution in the Algerian economy during the period 1974-2007

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2007 - 1974

Abstract: The economy of Algeria has grown in environment characterized by a varied phases, policies and targets and in violent way. There is no doubt that this discrepancy has an impact on the performance of the Algerian economic sectors from time to time depending on the allocated priority. In this article, by using statistical analysis of the building materials sector contribution in the production and the operating accounts, we attempt to estimate the performance of the concerned sector during 1974 - 2007, which is relatively long. We expect that this has an impact on the standing of the building materials sector among the other sectors. We consider that the achieved results are important and the study needs to be renewed periodically and generalized to the other sectors, which will enable to conduct a comparative study.

Keywords: Building materials, Production account, Operating account, Factor analysis.

(1970 - 1962)

2007 - 1974

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			()	
.(1)						
:		:				1-1
()				
				:		
	(PPBS)	:				-
	%0.67					
	%0.27		%1.19	1986	%1.73	1974
	(PPBS)	.(1)			%23.08	
			0.01			
.0.05			%39.0			
	(PCIS)	:				-
	%0.64					
	%0.22		%1.27	1985	%1.59	1974
(PCIS)	.(2)				%17.48	
	-				-	
					0.01	
		.0.05			%39.6	
	(PVAS)	:				-
	%0.59					
	% 0.33		%1.15	1986	%1.83	2006
	(PVAS)	.(3)			%28.86	
			0.01			
	0.05		%42.6			
	(PCFFS)	:				-
% 1.73						
%0.92		%3.23	1996	%4.87	2007	

	.(4)			%28.54	
	0.01		PRSS, PVAS, PCIS, PPBS		(PCFFS)
.0.05		%39.9			
(PRIS)		:			-
%0.49					
	%0.30	%0.93	1986	%1.59	2006
(PRIS)	.(5)			%32.19	
%39.9	PCFFS	0.01			
				0.05	
	:				-
					(PILPS)
%0.59	1986	%1.15	1975	%0.25	
		%37.49		%0.22	
				(PILPS)	.(6)
			0.05		%38.8
	(PRSS)	:			-
%1.72					
	%0.34	%2.54	2001	%3.00	1975
	.(7)			%13.59	
(PENES)		:			-
% 0.76-					
	%0.44	%0.27	1992	%1.26	1983
.(8)				%159.29	
		:			: ii
t-student		- (9)			
			.2007-1974		
	t-student	:			1-2
		:		3	

<p>: Levene</p> <p>Sig. = 0.000 < α = 0.05 :</p>	<p>4</p> <p>.</p> <p>F = 175.05</p>	<p>Levene(<i>ddl1</i> = 7; <i>ddl2</i> = 264) = 24.008</p> <p>(2)</p>	<p>-1</p> <p>-2</p>
<p>:</p> <p>Levene</p> <p>Test-t</p>	<p>:(PPBS-PCIS)</p> <p>Sig. = 0.076 > α = 0.05 F</p>	<p>1-1-2</p> <p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PPBS- PVAS)</p> <p>Sig. = 0.193 > α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p> <p>.(PCFFS)</p>	<p>:(PPBS- PCFFS)</p> <p>Sig. = 0.000 < α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PPBS- PRIS)</p> <p>Sig. = 0.579 > α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PPBS- PILPS)</p> <p>Sig. = 0.149 > α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PPBS- PRSS)</p> <p>Sig. = 0.491 > α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PPBS- PENES)</p> <p>Sig. = 0.082 > α = 0.05 F</p>	<p>-</p>	<p>-</p>
<p>Levene</p> <p>Test-t</p>	<p>:(PCIS - PVAS)</p> <p>Sig. = 0.004 < α = 0.05 F</p>	<p>2-1-2</p> <p>-</p>	<p>-</p>

Levene	:	(PCIS-PCFFS)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F
Levene	:	(PCIS- PRIS)	-
Test-t	<i>Sig.</i> = 0.026	$\prec \alpha = 0.05$	F
Levene	:	(PCIS- PILPS)	-
Test-t	<i>Sig.</i> = 0.601	$\succ \alpha = 0.05$	F
Levene	:	(PCIS- PRSS)	-
Test-t	<i>Sig.</i> = 0.041	$\prec \alpha = 0.05$	F
Levene	:	(PCIS- PENES)	-
Test-t	<i>Sig.</i> = 0.005	$\prec \alpha = 0.05$	F
			3-1-2
			:
Levene	:	(PVAS-PCFFS)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F
Levene	:	(PVAS-PRIS)	-
Test-t	<i>Sig.</i> = 0.455	$\succ \alpha = 0.05$	F
Levene	:	(PVAS-PILPS)	-
Test-t	<i>Sig.</i> = 0.008	$\prec \alpha = 0.05$	F
Levene	:	(PVAS-PRSS)	-
Test-t	<i>Sig.</i> = 0.687	$\succ \alpha = 0.05$	F
Levene	:	(PVAS-PENES)	-
Test-t	<i>Sig.</i> = 0.423	$\succ \alpha = 0.05$	F

4-1-2

		:	
Levene		: (PCFFS-PRIS)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F
Levene		: (PCFFS-ILPS)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F
Levene		: (PCFFS-PRSS)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F
Levene		: (PCFFS-PENES)	-
Test-t	<i>Sig.</i> = 0.000	$\prec \alpha = 0.05$	F

5-1-2

		:	
Levene		: (PRIS-PILPS)	-
Test-t	<i>Sig.</i> = 0.052	$\succ \alpha = 0.05$	F
Levene		: (PRIS-PRSS)	-
Test-t	<i>Sig.</i> = 0.817	$\succ \alpha = 0.05$	F
Levene		: (PRIS-PENES)	-
Test-t	<i>Sig.</i> = 0.178	$\succ \alpha = 0.05$	F

6-1-2

		:	
Levene		: (PILPS-PRSS)	-
Test-t	<i>Sig.</i> = 0.074	$\succ \alpha = 0.05$	F
Levene		: (PILPS-PENES)	-
Test-t	<i>Sig.</i> = 0.009	$\prec \alpha = 0.05$	F

7-1-2

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Levene
Test-t

: (PRSS-PENES)

-

Sig. = 0.294 > $\alpha = 0.05$ F

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6

5

7

:

1-3

:

8

-

$$. Déterminant = \prod_{i=1}^{i=8} \lambda_i = 7.87E - 8$$

%50 (K-M-O)

- -

-

0.626

(3)

Bartlett

-

(4)

0.50

% 75

(a)

:

2-3

(5)

(Extraction)

...

:

3-3

(6)

9

0.65

(6)

12

%80.175

11

10

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%80.175

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$$\lambda_1 = 3.439$$

%42.993

-

$$\lambda_2 = 2.975$$

%37.181

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« Caizer »

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$(C_{11}; C_{12})$

(0.65

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:

$(C_{21}; C_{22})$

$$C_{11} = 0.99 PPBS + 0.96 PVAS + 0.75 PCIS + 0.93 PRIS + 0.73 PRSS + 0.73 PILPS + 0.61 PCFFS + 0.46 PENES \dots(1)$$

$$C_{12} = -0.05 PPBS + 0.04 PVAS - 0.27 PCIS + 0.31 PRIS - 0.36 PRSS + 0.34 PILPS - 0.66 PCFFS + 0.76 PENES \dots(2)$$

$$C_{21} = 0.78 PPBS + 0.69 PVAS + 0.75 PCIS + 0.49 PRIS + 0.79 PRSS + 0.32 PILPS + 0.90 PCFFS - 0.15 PENES \dots(3)$$

$$C_{22} = 0.61 PPBS + 0.66 PVAS + 0.29 PCIS + 0.49 PRIS + 0.21 PRSS + 0.32 PILPS - 0.10 PCFFS + 0.88 PENES \dots(4)$$

14

(

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$(C_{21}; C_{22})$

:

4-3

% 62.181

: %17.994

.1

:

.2

(8)

:

:

5-3

(10)

:(7)

2007 1999

1977 1975 1974

:

:

PRS

-

-

Dendrogram

-

1999 1977 1975 1974

-

1977 1975 1974

2007

(1977-1974)

.()

(2007-2005)

2007 1999
(2004-2001)

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%

(1)

	PPBS	PCIS	PVAS	PCFFS	PRIS	PILPS	PRSS	PENES		PPBS	PCIS	PVAS	PCFFS	PRIS	PILPS	PRSS	PENES
1974	0,667	0,641	0,682	1,768	0,584	0,881	1,730	-0,067	1991	1,347	1,296	1,372	2,993	1,237	0,880	2,608	0,783
1975	0,730	0,728	0,732	2,380	0,546	0,245	1,716	-0,105	1992	1,573	1,428	1,649	2,835	1,567	0,649	2,823	1,263
1976	0,921	0,937	0,910	3,066	0,658	0,402	1,956	-0,088	1993	1,455	1,309	1,545	4,702	1,179	0,737	2,574	0,601
1977	1,005	1,084	0,954	2,202	0,805	0,497	1,739	0,286	1994	1,340	1,192	1,434	3,889	1,160	0,714	2,710	0,615
1978	1,133	0,941	1,253	3,362	1,025	0,339	2,354	0,277	1995	1,418	1,356	1,452	3,662	1,239	0,556	2,887	0,825
1979	1,292	1,408	1,223	4,792	0,829	0,381	2,778	-0,386	1996	1,299	1,340	1,277	4,869	0,913	0,533	2,559	0,509
1980	1,251	1,410	1,162	4,539	0,779	0,363	2,734	-0,380	1997	1,218	1,358	1,143	3,462	0,938	0,519	2,833	0,482
1981	1,107	1,221	1,038	4,136	0,706	0,408	2,660	-0,436	1998	1,359	1,454	1,300	3,612	1,060	0,700	2,932	0,521
1982	1,085	1,294	0,972	3,636	0,648	0,417	2,452	-0,600	1999	1,002	1,051	0,972	2,239	0,833	0,541	2,565	0,391
1983	1,236	1,334	1,177	4,192	0,783	0,552	2,845	-0,759	2000	0,860	1,024	0,779	2,382	0,649	0,367	2,466	0,317
1984	1,399	1,519	1,330	3,854	1,018	0,825	2,626	-0,035	2001	1,080	1,368	0,933	2,627	0,782	0,556	2,996	0,310
1985	1,515	1,586	1,476	3,576	1,189	0,796	2,749	0,281	2002	1,113	1,358	0,985	2,440	0,853	0,546	2,788	0,469
1986	1,733	1,578	1,826	3,296	1,595	1,150	2,781	0,687	2003	0,963	1,367	0,777	2,305	0,648	0,496	2,542	0,282
1987	1,560	1,421	1,649	3,051	1,435	0,866	2,482	0,734	2004	0,937	1,374	0,749	2,148	0,632	0,442	2,367	0,323
1988	1,633	1,581	1,664	4,249	1,321	0,896	2,615	0,480	2005	0,837	1,325	0,655	2,051	0,548	0,331	2,363	0,292
1989	1,302	1,330	1,286	3,766	1,031	0,875	2,724	0,073	2006	0,758	1,195	0,592	2,025	0,491	0,316	2,232	0,248
1990	1,375	1,226	1,456	3,856	1,227	0,778	2,895	0,569	2007	0,902	1,151	0,805	1,733	0,734	0,366	2,122	0,572

1- Collections Statistiques, Série E: Statistiques Économiques , N° 131,

2- RETROSPECTIVE DES COMPTES ECONOMIQUES DE 1963 A 2005, ONS, Alger, Novembre 2006 ;

3- http://www.ons.dz/-Compte-de-production-et-compte-d-.html?debut_articles=10#pagination_articles ;...

ANOVA (2) الجدول

Var	Somme des carrés	ddl	Moyenne des carrés	F	Signification
Inter-groupes	234.487	7	33.498	175.054	0.000
Intra-groupes	50.519	264	0.191		
Total	285.006	271			

Indice KMO et test de Bartlett (3) جدول

Mesure de précision de l'échantillonnage de Kaiser-Meyer-Olkin.	0.626	
Test de sphéricité de Bartlett	Khi-deux approximé	482.563
	ddl	28
	Signification de Bartlett	0.000

Matrices anti-images (4)

		PPBS	PCIS	PVAS	PCFFS	PRIS	PILPS	PRSS	PENES
Covariance anti-images	PPBS	.001	-.004	.000	.000	-9.798E-5	-.002	-.003	.003
	PCIS	-.004	.017	.003	.004	.001	.007	.001	-.015
	PVAS	.000	.003	.001	-.003	-.001	.001	.008	.003
	PCFFS	.000	.004	-.003	.032	.009	.015	-.053	-.036
	PRIS	-9.798E-5	.001	-.001	.009	.003	-.001	-.015	-.015
	PILPS	-.002	.007	.001	.015	-.001	.384	.016	.031
	PRSS	-.003	.001	.008	-.053	-.015	.016	.237	.053
	PENES	.003	-.015	.003	-.036	-.015	.031	.053	.124
Corrélation anti-images	PPBS	.703 ^a	-.974	-.751	-.062	-.053	-.098	-.181	.254
	PCIS	-.974	.581 ^a	.668	.150	.144	.081	.021	-.313
	PVAS	-.751	.668	.636 ^a	-.582	-.613	.042	.511	.285
	PCFFS	-.062	.150	-.582	.455 ^a	.922	.133	-.599	-.572
	PRIS	-.053	.144	-.613	.922	.610 ^a	-.039	-.557	-.792
	PILPS	-.098	.081	.042	.133	-.039	.970 ^a	.052	.144
	PRSS	-.181	.021	.511	-.599	-.557	.052	.658 ^a	.310
	PENES	.254	-.313	.285	-.572	-.792	.144	.310	.437 ^a

a. Mesure de précision de l'échantillonnage

Qualité de représentation (Communalities) (5)

	Initial	Extraction
PPBS	1.000	0.977
PCIS	1.000	0.642
PVAS	1.000	0.919
PCFFS	1.000	0.815
PRIS	1.000	0.953
PILPS	1.000	0.644
PRSS	1.000	0.666
PENES	1.000	0.797

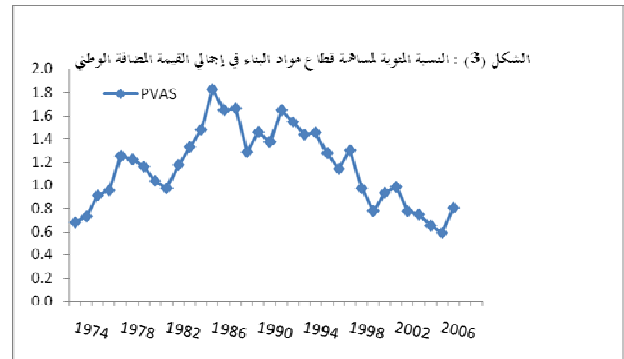
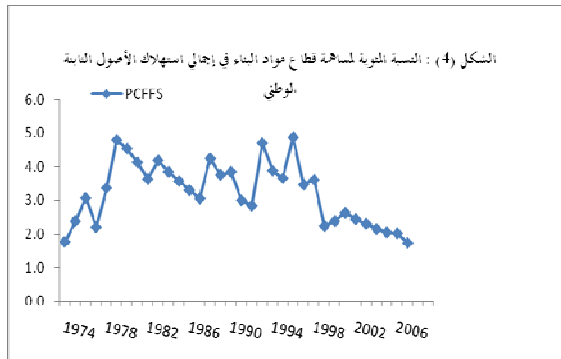
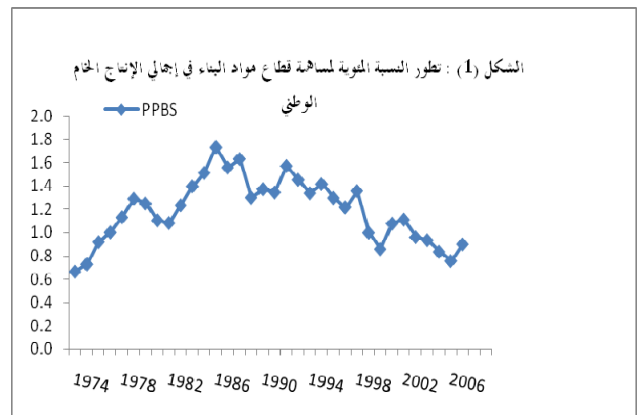
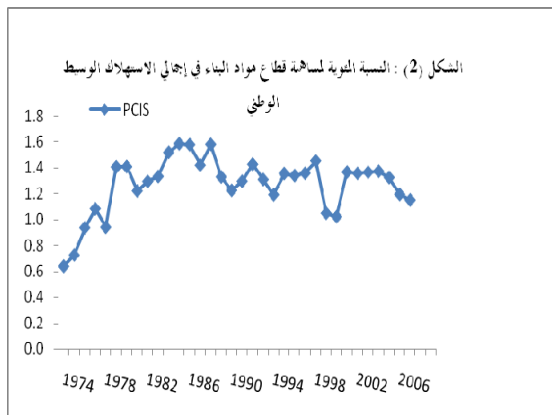
Méthode d'extraction : Analyse en composantes principales.

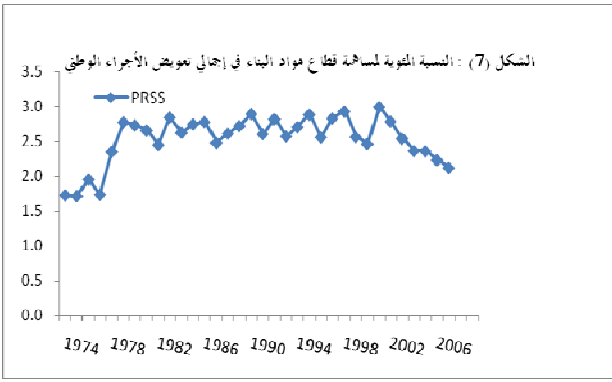
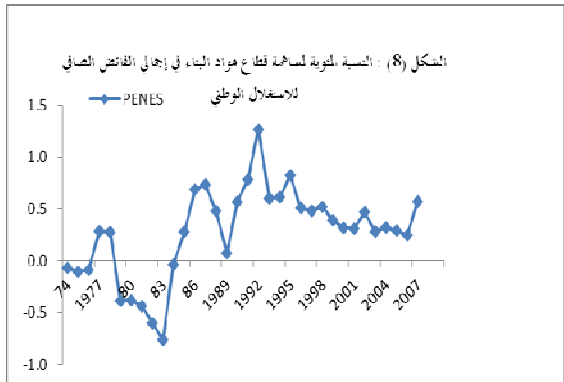
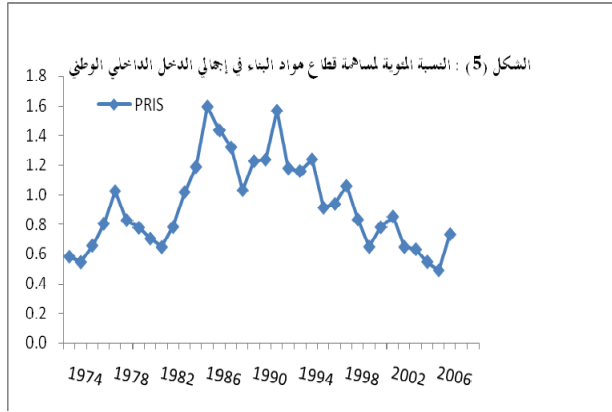
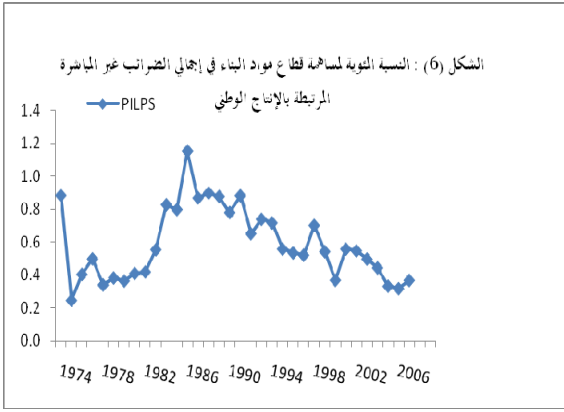
جدول (6) القيم الذاتية ونسب التشتت حول المحاور العاملية و Variance totale expliquée

Composante	Valeurs propres initiales			Extraction Sommes des carrés des facteurs retenus			Somme des carrés des facteurs retenus pour la rotation		
	Total	% de la variance	% cumulés	Total	% de la variance	% cumulés	Total	% de la variance	% cumulés
1	4.975	62.181	62.181	4.975	62.181	62.181	3.439	42.993	42.993
2	1.439	17.994	80.175	1.439	17.994	80.175	2.975	37.181	80.175
$\lambda_1 = 4.975 ; \lambda_2 = 1.439 ; \lambda_3 = 0.765 ; \lambda_4 = 0.453 ; \lambda_5 = 0.248 ; \lambda_6 = 0.118 ; \lambda_7 = 0.002 ; \lambda_8 = 0.01$ $\text{Déterminant} = \prod_{i=1}^8 \lambda_i = 7.87E-8 ; \text{trace} = \sum_{i=1}^8 \lambda_i = 8$									

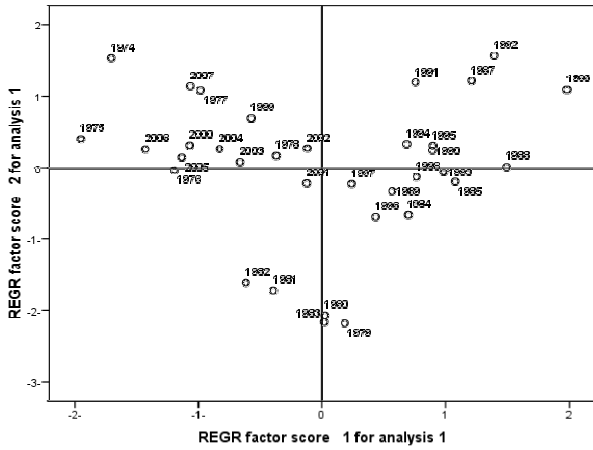
Méthode d'extraction : Analyse en composantes principales.

(Cluster Membership) Appartenance à la classe (7) جدول									
Observation	5 classes	4 classes	3 classes	2 classes	Observation	5 classes	4 classes	3 classes	2 classes
1: 1974	1	1	1	1	18: 1991	4	4	3	2
2: 1975	1	1	1	1	19: 1992	4	4	3	2
3: 1976	2	2	2	2	20: 1993	3	3	2	2
4: 1977	1	1	1	1	21: 1994	3	3	2	2
5: 1978	2	2	2	2	22: 1995	3	3	2	2
6: 1979	3	3	2	2	23: 1996	3	3	2	2
7: 1980	3	3	2	2	24: 1997	3	3	2	2
8: 1981	3	3	2	2	25: 1998	3	3	2	2
9: 1982	2	2	2	2	26: 1999	5	1	1	1
10: 1983	3	3	2	2	27: 2000	5	1	1	1
11: 1984	3	3	2	2	28: 2001	5	1	1	1
12: 1985	3	3	2	2	29: 2002	5	1	1	1
13: 1986	4	4	3	2	30: 2003	5	1	1	1
14: 1987	4	4	3	2	31: 2004	5	1	1	1
15: 1988	3	3	2	2	32: 2005	5	1	1	1
16: 1989	3	3	2	2	33: 2006	5	1	1	1
17: 1990	3	3	2	2	34: 2007	5	1	1	1

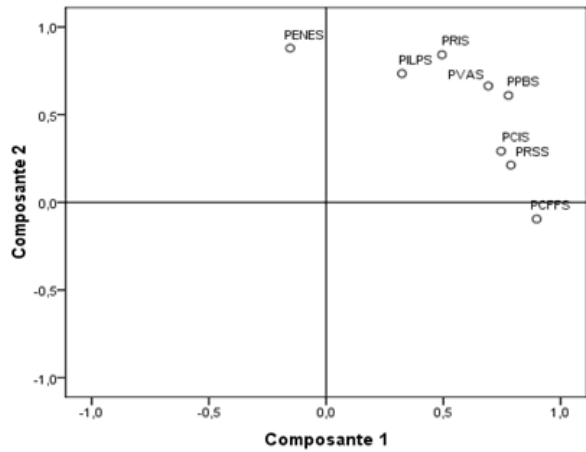




(10) Component Plot in Rotated Space



(9) Component Plot in Rotated Space



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<http://www.ons.dz/-Compte-de-production-et-compte-d-.html>

2007

ddl k n $Levene(ddl1 = (k - 1); ddl2 = k * (n - 1))$

[] 471

(2005)

			_6
		:	_7
			_8
" 2008	03-02	:	_9
"	-2006 -1990		
	[496-495]	_10
		" "	_11
-1974		:	_12
		.2011 / 09	2007
			_13
			_14
2007 - 1974			_15
.2010 10/09 .	-		
			_16