ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Director: **ERNESTO REZK**

Research Team: **MARIA CECILIA AVRAMOVICH**

SILVANA TOLEDO

ORNELA FABBRO

Institute of Economics and Finance

Faculty of Economic Sciences

National University of Córdoba

ernerezk@eco.unc.edu.ar

9° WORKSHOP ON PUBLIC FINANCE, BANCA D´ ITALIA

PERUGIA, 29 MARCH - 31 APRIL 2007

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Project´s Objectives

To assess the impact, upon Argentine provincial public spending, of economic, fiscal and politico-institutional variables such us:

- *provincial governments´ political sign*
- *governors´ effective possibility of reelection*
- *unicameral vis a vis bicameral legislatures*
- *constitutional and legal limits to spending, debt and use of credit*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Some important references in the related Literature:

Bosch and Suárez Pandiello (1995)

Persson and Tabellini (2004)

Bercoff and Nougués (2005)

Fridrij (2006)

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Main assumptions used in the related Literature:

Expected per capita expenditure under left wing parties or coalitions should be greater that under right wing governments

Expected per capita expenditure should be greater when the government is not backed by a majority party

Local per capita expenditure is higher the greater people´s participation in elections

Local per capita expenditure will be greater the higher the fiscal effort

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Main assumptions used in the related Literature:

When political sign of subnational governments differs from the central government´s political sign, their per capita expenditure will be greater

Local per capita expenditure will be lower the greater the burden of inherited financial liabilities

Local total per capita expenditure will be less the greater the proportion of earmarked taxes in total income

Electoral rules and the forms of government affect the size and composition of public spending

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Main assumptions used in the related Literature:

Political constitutions have a causal effect on fiscal policy

A switch from a proportional to majoritarian election reduces public spending

Presidentialism reduces the overall size of government

Parliamentary democracies have larger welfare spending than presidential democracies.

Bicameral subnational governments tend to have less per capital expenditure than single-chamber subnational governments

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ARGENTINA - VERTICAL UNBALANCE 2005 (millons of dollars of 2005)

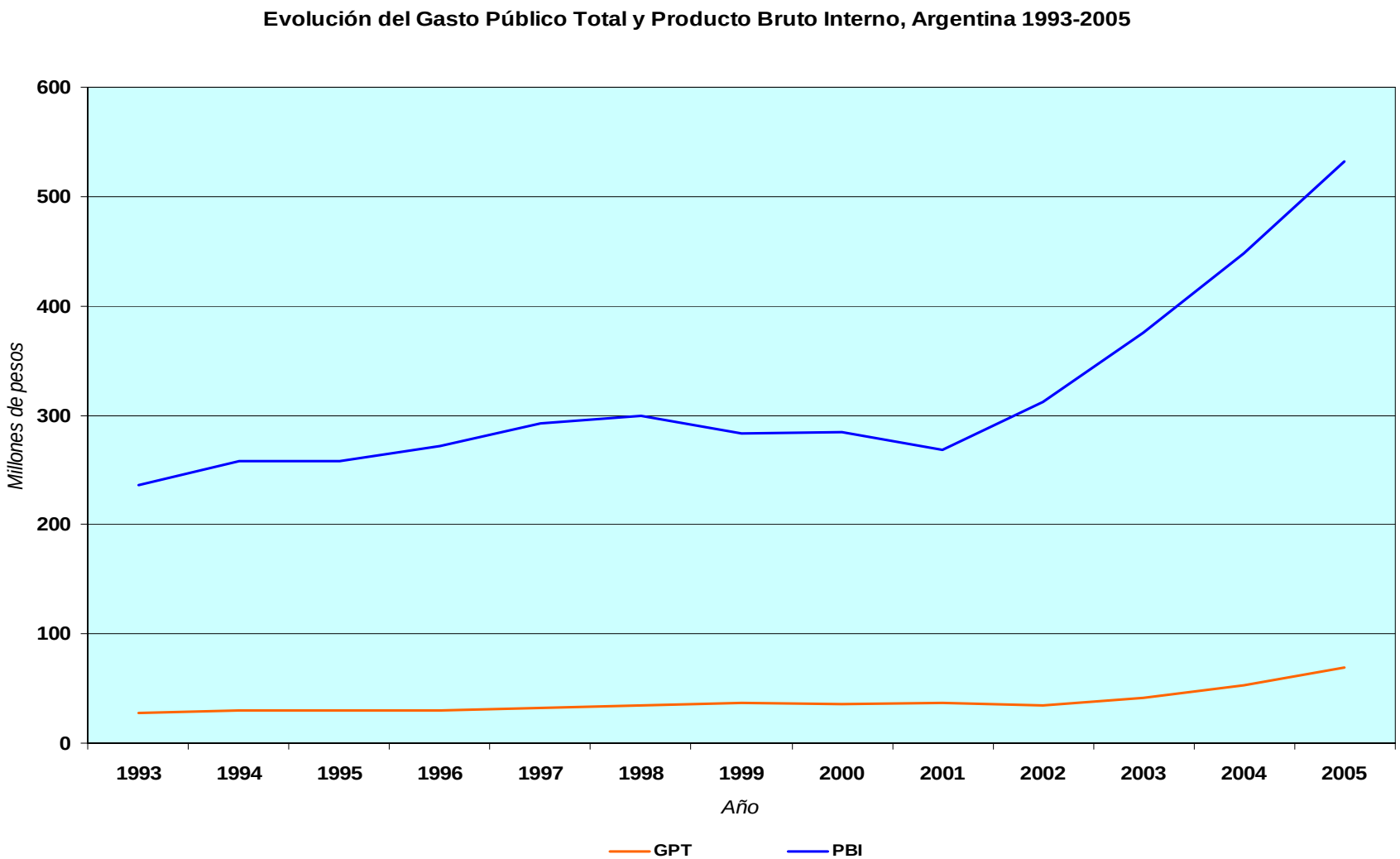
	NATION	PROVINCES
REVENUES (w/t)	33,001	19,444
SPENDING (w/t)	27,352	23,202
SUP/DEF.	5,649	- 3,758

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

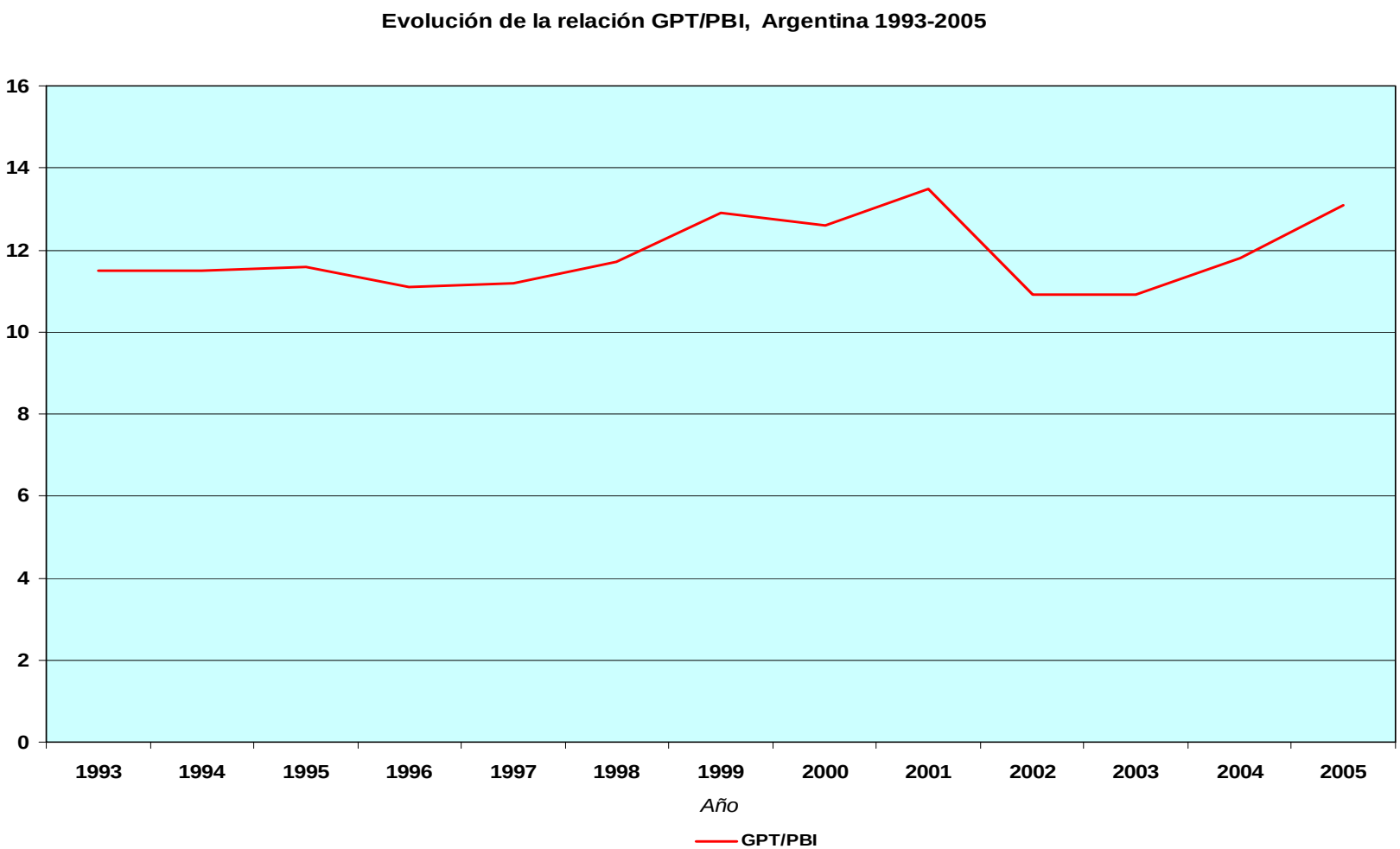
ARGENTINA - VERTICAL UNBALANCE 2005 (millons of dollars of 2005)

	NATION	PROVINCES
REVENUES	33,001	23,788
SPENDING	31,696	23,202
SUP/DEF.	1,305	586

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA



ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA



ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

SERIES USED

Annual value of variables, expressed in per cápita pesos of 2004, for each of the 23 Argentine provinces and the city of Buenos Aires

SOURCE

National Direction of Fiscal Coordination with Provinces, Ministery of Economics and INDEC

PERIOD OF DE ANALYSIS

1993 - 2004

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ECONOMIC AND BUDGETARY VARIABLES

***pbp**: Geographic Gross Product*
***gpt**: Provincial Total Public Spending*
***gc**: Current Public Spending*
***gco**: Consumption Public Spending*
***gcap**: Capital Public Spending*
***ga**: Administrative Public Spending*
***gs**: Social Public Spending*
***ge**: Economic Public Spending*
***dp**: Stock of Provincial Public Debt*
***it**: Total Revenues*
***itt**: Total Tax Revenues*
***itp**: Provincial Tax Revenues*
***itn**: National Tax Revenues*
***transf**: Received Transfers*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ECONOMIC AND BUDGETARY VARIABLES

***parttrib**: Provinces´ degree of financial autonomy (as a proxy to accountability). Quotient between Provincial Tax Revenues and Total Tax Revenues*

***sufin**: Provinces´ degree of financial sufficiency. Measured by Total Tax Revenues*

***sufin1**: Provinces´ degree of financial sufficiency. Measured by Total Revenues*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

POLITICO INSTITUTIONAL VARIABLES

***d1**: Province´s political sign*

***d2**: Governor´s possibility of reelection*

***d3**: Governors´ exercise of reelection in the term´s fourth year*

***d4**: Governors´exercise of reelection in the term´s third and fourth year*

***d5**: Reelection of governor*

***d6**: Budget project amendment (Legislature can increase expenditures in executive´s proposal)*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

POLITICO INSTITUCIONAL VARIABLES

***d7**: Budget project amendment (Legislature can increase expenditures but not deficit)*

***d8**: Constitutional limits to provincial debt*

***d9**: Constitutional limits to provincial expenditures*

***d10**: Constitutional conditioning to credit use*

***d11**: No restrictions for provincial public spending*

***d12**: Bicamerality*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Specification of used Model

Constant terms α_i *and coefficients in* β *were obtained from a fixed effect panel data model. By means of Dummy Variable Least Squares the following equation was estimated:*

$$y_i = i\alpha_i + X_i\beta + \mu_i$$

in which i is a dummy variable matrix of order i x i

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

Solving the model with LSDV

Intercepts vary with each cross section unit while slope coefficients are assumed constant for all provinces:

$$y_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \ldots + \alpha_{24} D_{24i} + X_i \beta + \varepsilon_I$$

The significance of the group effect is tested with the Restricted F-Test:

$$F(i-1, it-i-i) = \frac{(R^2_{LSDV} - R^2_{Pooled})/(i-1)}{(1 - R^2_{LSDV})/(it-i-k)}$$

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

For random effects panel data models

$$y_i = \alpha_i + X_i \beta + \mu_i$$

$$\alpha_i = \alpha_1 + \varepsilon_i$$

$$y_i = \alpha_1 + X_i \beta + w_i$$

$$w_i = \varepsilon_i + \mu_i$$

$$\varepsilon_i \sim N(0, \sigma_\varepsilon)$$

$$w_i \sim N(0, \sigma^2_\mu)$$

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

PROBLEMS FOUND

HETEROSCEDASTICITY

Not constant variance of errors for each cross section unit

Variances of estimates are not minima

SERIAL CORRELATION

The assumption that errors μ, within the population regression function, are random and uncorrelated does not hold

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

CONSEQUENCES

OLS estimates: unbiased, constant, asymptotically and normally distributed but not efficient (not blue). Also, MCO estimations yield unprecise results for t and F tests (that is,estimates may appear to be not statistically significant)

Test used for heterocedasticity detection: Wald proof

Method used for heterocedasticity correction: GLS

Test used for serial correlation detection: Wooldridge proof

Method used for serial correlation correction: AR1

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

tsset i t

xtreg gpt pbp dp parttrib d1 d3 d12

tabulate i, gen(i)

xtreg gpt pbp dp parttrib d1 d3 d12, fe

ttest3

tserial gpt pbp dp parttrib d1 d3 d12

xi: xtgls gpt pbp dp parttrib d1 d3 d12 i2 - i24, p(h) corr(ar1)

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

gpt	*Coef.*	*Std. Err.*	*t*	*P>|t|*	*[95% Conf. Interval]*	
pbp	*.0462366*	*.0186786*	*2.48*	*0.014*	*.0094369*	*.0830362*
dp	*2.064789*	*.400074*	*5.16*	*0.000*	*1.276582*	*2.852996*
transf	*.9882839*	*.1720921*	*5.74*	*0.000*	*.649236*	*1.327332*
d1	*-.236911*	*.0700775*	*-3.38*	*0.001*	*-.3749745*	*-.0988475*
d2	*(dropped)*					
d9	*-.5286489*	*.2666213*	*-1.98*	*0.049*	*-1.053934*	*-.0033639*
cons	*1.795316*	*.2102793*	*8.54*	*0.000*	*1.381033*	*2.209598*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

xttest3

Modified Wald test for groupwise heteroskedasticity

in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (24) = 914.38

Prob>chi2 = 0.0000

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

xtserial gpt pbp dp transf d1 d2 d9

Wooldridge test for autocorrelation in panel data

H0: no first-order autocorrelation

F(1, 23) = 18.579

Prob > F = 0.0003

xi: xtgls gpt pbp dp transf d1 d2 d9 i2-i24, p(h) corr(ar1)

note: i7 dropped due to collinearity

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares

Panels: heteroskedastic

Correlation: common AR(1) coefficient for all panels (0.4136)

Estimated covariances	*= 24*	*Number of obs*	*= 263*
Estimated autocorrelations	*= 1*	*Number of groups*	*= 24*
Estimated coefficients	*= 29*	*Obs per group: min*	*= 10*
avg = 10.95833		*max =*	*11*

Wald chi2(28) = 1003.28

Log likelihood = -42.62968 *Prob > chi2 = 0.0000*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

gpt	*Coef.*	*Std. Err.*	*z*	*P>|z|*	*[95% Conf.*	*Interval]*
pbp	*.0879926*	*.0165218*	*5.33*	*0.000*	*.0556105*	*.1203747*
dp	*2.385482*	*.3309368*	*7.21*	*0.000*	*1.736858*	*3.034106*
transf	*.4459384*	*.2647088*	*1.68*	*0.092*	*-.0728813*	*.9647582*
d1	*-.1691261*	*.0413092*	*-4.09*	*0.000*	*-.2500906*	*-.0881616*
d2	*-.8823462*	*.2763955*	*-3.19*	*0.001*	*-1.424072*	*-.3406209*
d9	*-.4510836*	*.2402260*	*-1.88*	*0.060*	*-.9219179*	*.0197508*
i2	*1.583479*	*.1984447*	*7.98*	*0.000*	*1.194534*	*1.972423*
i3	*.7923296*	*.1414422*	*5.60*	*0.000*	*.5151079*	*1.069551*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

gpt	*Coef.*	*Std. Err.*	*z*	*P>|z|*	*[95% Conf.*	*Interval]*
i4	*.6818995*	*.2064793*	*3.30*	*0.001*	*.2772074*	*1.086592*
i5	*-1.521784*	*.3839806*	*-3.96*	*0.000*	*-2.274372*	*-.7691954*
i6	*-.023838*	*.1099778*	*-0.22*	*0.828*	*-.2393905*	*.1917146*
i8	*-.1590914*	*.281249*	*-0.57*	*0.572*	*-.7103294*	*.3921466*
i9	*1.35056*	*.2186927*	*6.18*	*0.000*	*.9219305*	*1.77919*
i10	*1.009987*	*.2027344*	*4.98*	*0.000*	*.6126343*	*1.407339*
i11	*1.557761*	*.2611868*	*5.96*	*0.000*	*1.045844*	*2.069677*
i12	*1.747929*	*.3963443*	*4.41*	*0.000*	*.9711082*	*2.524749*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

gpt	*Coef.*	*Std. Err.*	*z*	*P>|z|*	*[95% Conf.*	*Interval]*
i13	*-.4623697*	*.22518*	*-2.05*	*0.040*	*-.9037144*	*-.021025*
i14	*.4332358*	*.1380611*	*3.14*	*0.002*	*.1626409*	*.7038306*
i15	*1.871304*	*.2489495*	*7.52*	*0.000*	*1.383372*	*2.359236*
i16	*.5438599*	*.1699607*	*3.20*	*0.001*	*.2107431*	*.8769767*
i17	*.5104551*	*.1262723*	*4.04*	*0.000*	*.262966*	*.7579441*
i18	*1.927100*	*.3644439*	*5.29*	*0.000*	*1.212803*	*2.641397*
i19	*.2057755*	*.1315065*	*1.56*	*0.118*	*-.0519726*	*.4635236*
i20	*3.835875*	*.4010494*	*9.56*	*0.000*	*3.049833*	*4.621917*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

ESTIMATION WITH STATA

gpt	*Coef.*	*Std. Err.*	*z*	*P>|z|*	*[95% Conf.*	*Interval]*
i21	*-.7218289*	*.2867193*	*-2.52*	*0.012*	*-1.283788*	*-.1598695*
i22	*.9016951*	*.1804880*	*5.00*	*0.000*	*.5479451*	*1.255445*
i23	*3.735364*	*.4827832*	*7.74*	*0.000*	*2.789126*	*4.681602*
i24	*-.4456634*	*.2697412*	*-1.65*	*0.098*	*-.9743465*	*.0830196*
cons	*1.293851*	*.2630917*	*4.92*	*0.000*	*.7782004*	*1.809501*

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

AN ILLUSTRATION OF THE FIXED EFFECT PANEL DATA MODEL ESTIMATION WITH EVIEWS

SERIAL CORRELATION TREATED WITH A (AR1) STRUCTURE

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 1

DEPENDENT VARIABLE TOTAL PROVINCIAL PUBLIC SPENDING				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PBP	-0.032700	0.013732	-2.381260	0.0182
PARTTRIB	1.618326	0.824996	1.961617	0.0511
PD	1.233370	0.298909	4.126240	0.0001
SUFIN	1.185929	0.073634	16.10583	0.0000
TRANSF	0.784352	0.133271	5.885377	0.0000
D1	-0.126007	0.045741	-2.754802	0.0064
D3	0.125228	0.040859	3.064905	0.0025
AR(1)	0.360151	0.065328	5.512930	0.0000
R-squared	0.978253	Mean dependent var		2.425935
Adjusted R-squared	0.975012	S.D. dependent var		1.518292
S.E. of regression	0.240004	Sum squared resid		11.98118
F-statistic	301.8296	Durbin-Watson stat		2.247812
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 2

DEPENDENT VARIABLE CURRENT PUBLIC SPENDING

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PARTTRIB	-0.872670	0.676503	-1.289973	0.1985
PD	1.825826	0.244277	7.474396	0.0000
SUFIN	0.808274	0.055497	14.56427	0.0000
TRANSF	0.528596	0.120000	4.404967	0.0000
D1	-0.106415	0.037311	-2.852132	0.0048
D3	0.102688	0.029783	3.447836	0.0007
AR(1)	0.554578	0.057837	9.588589	0.0000
R-squared	0.978405	Mean dependent var		2.035216
Adjusted R-squared	0.975305	S.D. dependent var		1.227732
S.E. of regression	0.192933	Sum squared resid		7.779664
F-statistic	315.6369	Durbin-Watson stat		1.794010
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 3

DEPENDENT VARIABLE CONSUMPTION PUBLIC EXPENDITURE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PARTTRIB	-0.018925	0.013514	-1.400437	0.1629
PD	0.034764	0.004979	6.982488	0.0000
SUFIN	0.011552	0.001106	10.44417	0.0000
TRANSF	0.008476	0.002381	3.560320	0.0005
D1	-0.002423	0.000747	-3.243371	0.0014
D4	0.001607	0.000673	2.388560	0.0178
AR(1)	0.537625	0.063810	8.425359	0.0000
R-squared	0.927967	Mean dependent var		0.038923
Adjusted R-squared	0.917628	S.D. dependent var		0.013422
S.E. of regression	0.003852	Sum squared resid		0.003102
F-statistic	89.74891	Durbin-Watson stat		1.956635
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 4

DEPENDENT VARIABLE CAPITAL PUBLIC SPENDING

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PBP	-0.023033	0.010745	-2.143682	0.0332
PARTTRIB	2.424315	0.637028	3.805663	0.0002
PD	-0.500866	0.231782	-2.160932	0.0318
SUFIN	0.325368	0.054501	5.969994	0.0000
TRANSF	0.165999	0.105683	1.570733	0.1178
AR(1)	0.411793	0.071152	5.787541	0.0000
R-squared	0.796795	Mean dependent var		0.390719
Adjusted R-squared	0.768733	S.D. dependent var		0.383516
S.E. of regression	0.184434	Sum squared resid		7.143310
F-statistic	28.39438	Durbin-Watson stat		2.063878
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 5

DEPENDENT VARIABLE ADMINISTRATIVE PUBLIC SPENDING

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PBP	-0.010409	0.004027	-2.584716	0.0104
SUFIN	0.342296	0.019544	17.51418	0.0000
TRANSF	0.255582	0.043250	5.909413	0.0000
D1	-0.027169	0.013766	-1.973642	0.0497
D4	0.034024	0.012766	2.665225	0.0083
AR(1)	0.403570	0.072360	5.577217	0.0000
R-squared	0.975107	Mean dependent var		0.638771
Adjusted R-squared	0.971669	S.D. dependent var		0.426998
S.E. of regression	0.071871	Sum squared resid		1.084754
F-statistic	283.6557	Durbin-Watson stat		1.926385
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 6

DEPENDENT VARIABLE WELFARE PUBLIC SPENDING

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PBP	-0.013917	0.007533	-1.847467	0.0661
PD	0.351262	0.166133	2.114344	0.0357
SUFIN	0.545919	0.040109	13.61078	0.0000
TRANSF	0.376932	0.074680	5.047311	0.0000
D1	-0.059712	0.025702	-2.323245	0.0211
D3	0.063433	0.022586	2.808462	0.0054
AR(1)	0.379676	0.056482	6.722071	0.0000
R-squared	0.968695	Mean dependent var		1.180970
Adjusted R-squared	0.964201	S.D. dependent var		0.708052
S.E. of regression	0.133967	Sum squared resid		3.750967
F-statistic	215.5743	Durbin-Watson stat		2.328373
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

TABLE 7

DEPENDENT VARIABLE ECONOMIC PUBLIC SPENDING

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PARTTRIB	1.100748	0.478150	2.302095	0.0223
PD	-0.253481	0.175421	-1.444989	0.1499
SUFIN	0.213252	0.039003	5.467612	0.0000
TRANSF	0.110197	0.075108	1.467185	0.1438
AR(1)	0.257324	0.069228	3.717034	0.0003
R-squared	0.849818	Mean dependent var		0.328700
Adjusted R-squared	0.829889	S.D. dependent var		0.358373
S.E. of regression	0.147809	Sum squared resid		4.609844
F-statistic	42.64162	Durbin-Watson stat		2.003348
Prob(F-statistic)	0.000000			

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

CONCLUSIONS

The inverse relationship between gross geographic product and provincial public spending is likely to be explained by a proportionally lower demand of public goods when the former increases (scale effect), though the possibility can not be ruled out that the impact of ggp upon spending be better represented by budgetary variables.

Whereas a higher provincial fiscal effort induces larger total public expenditures, it also causes that current and capital spending dwindles and increases, respectively (accountability enhancement). That is, the more the fiscal effort the more visible the use of funds by provincial governments.

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

CONCLUSIONS

More financial sufficiency and transfers bring out increases in public spending categories. However, capital formation does not benefit from enhanced transfers mainly used in welfare public spending

Increases in the stock of provincial debt raises total, current, consumption and administrative expenditures and reduces capital and economic public spending. This feature is not only accounting for the major financial burden of interest payments but also for the use provincial governments do of credit resources

ECONOMIC AND POLÍTICO-INSTITUTIONAL VARIABLES APPLIED TO THE ANALYSIS OF THE PERFORMANCE OF THE SUBNATIONAL PUBLIC SPENDING IN ARGENTINA

CONCLUSIONS

No evidences were found of politico institutional variables affecting the level of provincial public spending (limits to spending, debt and bicamerality) except in the ensuing two cases: when central and provincial governments share the same political sign, spending tends to reduce while governors´ excercise of their possibility of reelection substantially increases public spending