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Full Length Research Paper

Wagner's law in Pakistan: Another look

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We used traditional as well as time series econometrics techniques to reinvestigate the application of the Wagner's hypothesis to Pakistan (1960 -2007). Fiscal deficit and population growth were added to the functional form of the law. Wagner's hypothesis does not hold for aggregate public spending and income for three periods (1961 - 2007, 1973 - 1990, 1991 - 2007). WL holds for the period 1981 - 1991 when fiscal deficit is included that supports the Keynesian views about public spending. No long-run relationship exists between aggregate expenditure and income as well as between disaggregated expenditures and income. There is no-causality between income and public spending. Income Granger causes defence spending and interest payments. There is unidirectional causality between fiscal deficit and public spending as well as between income and fiscal deficit. Elasticity estimates and Granger causality results are in disagreement.

Key words: Wagner's law, elasticity, co-integration, causality.

INTRODUCTION

Adolph Wagner (1835 - 1917) was a German economist, politician, and public finance scholar. He put forward his law of increasing public expenditures in 1893 known as Wagner's hypothesis (WH) or Wagner's Law (WL). Adolph Wagner was perhaps the first to offer a direct economic account of the increasing public expenditures. Musgrave and Musgrave (1988) noted that he anticipated the trends to be realized fifty to hundred years later that development of modern industrial society would give rise to increasing political pressure for social progress and a continuous increase in public sector.

WL was derived from the historical experiences of the early stages of industrialization in Europe and Germany in particular. Wagner identified three main factors for increased government spending. First, administrative and protective role of government will increase as a country's economy develops. Secondly, with the expansion of economy government expenditures on "cultural and welfare" would rise, particularly on education and health. He implicitly assumed that the income elasticity of demand for public goods is more than unity. Finally, the technological progress of the industrialised nations requires government to undertake certain economic services for which private sector is shy (Khan, 1990).

Wagner Law suggested that during industrialization the share of government activities in the economy would increase at a rate greater than that of national income. WL has attracted attention of many researchers and different interpretations of the WL have been made. While the law has been supported by many studies in the developed countries (Sztbyer, 2001), the hypothesis has not been without criticism. Peacock and Wiseman (1967) suggested that public expenditures may increase, but not in the way that Wagner hypothesized. There are different ways of explaining the growth of public expenditure. Empirical testing of the WL is the most noted and reported way.

Many studies due to availability of data were done in the industrialised countries during 1960s. Interest in the subject declined in the late 1970s and early 1980s. However, the developments in time-series econometric techniques and changing patterns of public expenditure growth in the late-twentieth century have revived research interest in the WL. Henrekson (1993) noted that many tests of the WL using time-series data are unfounded since the time-series data used may be non stationary and thus do not confirm any economic relationship between the economic variables due to biased high "t" ratios.

Time series as well as cross-sectional studies of the have been done in both developed and developing countries. In time series studies WL has been tested for a single

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country using long-period data; in cross-section studies WL has been examined over short period of time
for a group of countries. Using traditional econometrics techniques, many studies (Peacock and Wiseman, 1967; Musgrave, 1969; Michas, 1975; Mann, 1980; Khan, 1990) have supported the law.

The empirical relevance of Wagner's law has been investigated and given unambiguous support by Oxley (1994), while Chletsos and Kollias (1997) argue that support for the Wagner's law could be found only for selected items of government expenditure. Ram (1987) has reported that while some time series studies support the hypothesis, cross-section studies lack such support. There have been single-country (Henrekson, 1993 (Sweden); Murthy, 1993 (Mexico); Khan, 1990 (Pakistan); Singh and Sahni, 1984(Canada); Mohsin et al., 1992 (India); Singh and Sahni, 1986 (USA); Afxentiou and Serletis, 1991 (Canada); Park, 1995 (Korea); Nomura, 1995 (Japan), cross-country (Ram 1987 and Mohsin et al.,1995) used 115 and 20 countries respectively, Anwar et al. (1996) studied 88 countries, Bohl (1996) study was limited to G-7 countries) and disaggregated data studies (Bairam, 1995; Burney, 2002; Javed, 1987; Sahni and Singh, 1984).

These studies have used different approaches for empirical examination of the WL ranging from traditional econometric techniques to more recent time series econometrics methods. The use of diverse approaches has produced different results. The studies using traditional regression analysis are based on the assumption that the data is stationary and therefore, have not yielded reliable results. The development of the time-series econometric techniques has called in question the validity of Wagner's law based on traditional econometrics.

VERSIONS OF WAGNER'S LAW

Wagner's law, though not much clear, is based on a simple positive relationship between public expenditure and economic growth. Wagner's law has been criticised for its vague nature. Gandhi (1971) noted that the imprecise nature of the WL has led to the development of five different versions of the WL. There are at least six versions of the WL that have been empirically investigated since 1960s. However, there is no decisive standard to decide about which one of the six versions is the most suitable and persuasive testing of the Law. The most common functional forms of the law cited in the literature are as follows:

1.) G = f(Y) Peacock-Wiseman (1967).
2.) GC = f(Y) Pryor (1968).
3.) G= f (Y/P) Goffman (1968).
4.) G/Y = f(Y) Modified Peacock-Wiseman (1967).
5.) G/P = f (Y/P) Gupta (1967).
6.) G/Y= f(Y/P) Musgrave (1969).

Where G = total government expenditure, Y = GDP (gross domestic product), GC = government consumption expenditure and P = population.

Ram (1987), Khan (1990), Murthy (1993), Henrekson (1993), Hsieh and Lai (1994) and Mohsin et al. (1995) used the Musgrave (1969) version, which is considered the most appropriate functional form of the WL (Michas, 1975). Following literature, we also use the last version in this paper. To get elasticity estimates, we use linear-log form and the real aggregate data. If the elasticity between G/Y and Y/P is positive, then Wagner's law would be valid.

SIGNIFICANCE OF THE STUDY

Wagner's Law is the well-known law of public expenditure. The objective of the paper is to investigate the validity of Wagner's Law in Pakistan using traditional and time series econometric techniques. Tariq (1987) has applied different versions of the WL to Pakistan's data for the period 1959 - 1987. He got mixed results for WL based on elasticity estimates. Khan (1990) used versions 5 and 6 based on elasticity estimates for the period 1959 - 1984 and has concluded that WL is valid in Pakistan for the said period. This study extends the aforementioned studies in three directions.

Firstly, this paper overcomes the earlier studies' methodological weaknesses in terms of Wagner's Law. Both studies (Tariq, 1987; Khan, 1990) have used traditional regression analysis that assumes that the data is stationary. The development of modern time-series methods cast doubts on traditional methods of estimation. The advent of new econometrics methods has necessitated that old theories and methodologies are given renewed attention and WL is not an exception.

Secondly, we are living in a highly dynamic world. Economic conditions and policies change as well. The period of the above-cited studies is not recent. There is need to update the data taking into account changes in policies. We use data from 1960 - 2007. Thirdly, using long period time series data, we investigate the time series properties of the data in order to ascertain the long-run relationship between the public expenditure and economic growth and also find direction of causality. Fourthly, the functional form of the WL is augmented by fiscal deficit and population growth a proxy for urbanisation. Finally, cross-section studies have not yielded reliable results because these are based on the implicit assumption that parameters governing the diverse countries are similar and this is not a realistic assumption due to different geography, size, economic conditions, political stability etc. Therefore, a test of the Wagner's Law should be based on the long time period rather than

on a cross section of countries. Therefore, we use both traditional econometrics (elasticity estimates) and time series econometrics methodology (cointegration, error-correction mechanism and causality), to explore the long-run relationship between public expenditure and economic growth in terms of WL for Pakistan.

METHODOLOGY

Elasticity estimates

As mentioned before, this paper uses the functional form that relates the share of government expenditure in GDP with the real per capita income. We write this relationship in logarithm form as given below:

$$lngy = \alpha_0 + \alpha_1 lny_p + \mu_t \quad (1)$$

Where gy is the real government expenditure as percentage of GDP(y); y_p is the real per capita income and μ_t is the disturbance term that satisfies the classical regression assumptions. α_1 gives direct measure of elasticity and $\alpha_1>0$, validates the WL. We estimate this relationship for four different time periods in order to take care of the structural changes taking place in the economy over the years. We call it model I.

In the subsequent equations the dependent variable is replaced by four categories of expenditures namely government expenditure on general administration (admny), defence expenditure (defy), development expenditure (devy) and expenditure on interest payments (inty) and these expenditures are all real and percentage of y. Each of these expenditures has been estimated for two different periods 1981 - 2007 and 1991 - 2007 for the reason mentioned before. We call it model II.

Murthy (1994) suggested the inclusion of additional variables like fiscal deficit and urbanisation in the WL functional form because these have relevance for economic development and government expenditures and such addition is also supposed to reduce the omitted variable bias and misspecification in econometrics estimation. Murthy (1994) added urbanisation in the WL functional form for Mexico and found support for it. According to Musgrave and Musgrave (1988) population changes are another major determinant of public expenditure growth. Population growth involves a change in the composition of population that necessitates an increase in public expenditure on education, health care, transport, and security.

Since 1980s fiscal indiscipline has manifested to affect macroeconomic stability that assumed startling magnitude towards the end of 1980s and the government of Pakistan was constrained to adopt a comprehensive programme of macroeconomic reforms. Pakistan's population problem is distressing given its momentum and structure. In absolute numbers almost 128 millions persons have been added during the last six decades. This situation has exerted an enormous pressure on the government to supply have been added during the last six decades. This situation has exerted an enormous pressure on the government to supply infrastructure catering to the demands of the growing population (Afzal, 2009).

We therefore, first add fiscal deficit (fdy) as percentage of GDP(y); and then both fiscal deficit and population growth (pg) are added to the above equation and call it model III and IV as given below:

$$lngy = \alpha_0 + \alpha_1 lny_p + \alpha_2 lnfdy + v_t \quad (2)$$

$$lngy = \alpha_0 + \alpha_1 lny_p + \alpha_2 lnfd + \alpha_3 lnpg + \varepsilon_t \quad (3)$$

Data on all the variables were collected from Government of Pakistan, Economic Survey (various issues). The data on defence, administration, interest payments, and development is for the period 1980 - 2007 while for rest of the variables it is from 1960 - 2007.

Co-integration analysis and causality testing

To overcome the problem of spurious regression, time-series properties of the economic variables are explored in time-series econometrics. Long-run relationship or cointegration exists between the variables if the time-series properties of the variables are satisfied. Cointegration is a statistical concept that deals with the analysis of the relationships between the nonstationary time series.

The general requirement for applying the cointegration technique is to have variables of the same order of integration at hand. The examination of stationarity/nonstationarity is important before doing any empirical work which is closely linked to the tests for unit roots. We use the augmented Dickey-Fuller (ADF) test which assumes that the Y series follow an AR (p) process and add p lagged difference terms of the dependent variable to the right hand side of the test regression:

$$\Delta Y_t = \beta_0 + \beta_1 t + \gamma Y_{t-1} + \sum \beta_j Y_{t-p} + \varepsilon_t \quad (4)$$

The expression (4) is then used to test H_0: $\gamma = 0$; H_1: $\gamma < 0$ where $\gamma = \rho - 1$. Dickey and Fuller (1979) have shown that under H_0: $\gamma = 0$, the estimated t-value of the coefficient of Y_{t-1} obtained by using OLS in the above equation follows the τ (tau) statistic. Dickey and Fuller (1979) have computed the critical values of the τ-statistic However, these Tables are not totally adequate and MacKinnon (1996) has considerably extended these Tables.

If the nonstationarity hypothesis is not rejected the theory of cointegration may provide useful information about the relationship between the variables. The two main cointegration techniques are the two-step procedure of Engle and Granger (1987) and Johansen technique. We use cointegration methodology suggested by Johansen (1991, 1995). It is preferred to Engle and Granger (1987) methodology in the literature because it is based on well-established maximum Likelihood procedure. If the cointegration exists between the variables, then either unidirectional or bidirectional causality must exist in at least between the stationary variables. Standard Granger or Sims test is valid for stationary variables because the error- correction term is not included (Granger, 1988). In the bivariate case, testing for Granger causality is simple. That can be accomplished by using F or Wald test. The Granger causality test is highly sensitive to the choice of lag-length. The lag selection process is based on different selection criteria.

EMPIRICAL RESULTS

Elasticity estimates

The WL requires that the relationship between income and government spending is positive. If the elasticity between G/GDP and GDP/N is positive, then Wagner's law would be valid.

Table 1. Elasticity estimates: Model I and Model II.

Dependent variable	y_p	Period	R^2	DW	ρ^a
		Model I			
lngy	-0.39 (-1.88)**	1961 - 2007	0.71	1.99	0.86 (11.58)*
lngy	0.31 (1.45)	1960 - 1972	0.16	1.70	-
lngy	-0.52 (-1.85)**	1973 - 1990	0.80	1.50	0.99 (10.45)*
lngy	-0.44 (-1.14)	1991 - 2007	0.78	1.91	0.70 (3.41)*
		Model II			
lnadmny	0.29 (0.77)	1981 - 2007	0.72	1.98	0.73 (3.95)*
lnadmny	0.004 (0.009)	1991 - 2007	0.67	1.96	0.76 (4.28)*
lndefy	-1.2 (-7.80)*	1981 - 2007	0.96	1.92	.78 (10.15)*
lndefy	-1.07 (-3.89)*	1991- 2007	0.96	2.10	0.76 (4.22)*
lndevy	-0.28 (-0.41)	1981 - 2007	0.87	1.76	0.88 (8.53)*
lndevy	0.01(0.01)	1991 - 2007	0.77	1.49	0.83 (5.70)*
lninty	-1.16 (-2.60)*	1981 - 2007	0.90	1.96	0.89 (19.09)*
Lninty	-1.27 (-2.57)*	1991 - 2007	0.84	2.0	0.80 (5.18)*

Table 2. Elasticity estimates - Model III and Model IV.

Dependent variable	y_p	fdy	pg	period	R^2	DW	ρ^a	Model
lngy	-0.40 (-1.87)**	-0.04 (-3.04)*	-	1961 - 2007	0.75	1.88	0.90 (15.29)*	Model III
lngy	1.55 (6.15)*	0.11 (0.83)	-	1981 - 1991	0.84	1.82	0.75 (5.41)*	
lngy	-0.17 (-0.55)	0.27 (1.90)**	-	1991 - 2007	0.83	2.09	0.61 (2.73)*	
lngy	-0.34 (-1.60)	-0.04 (-3.07)*	0.04 (0.79)	1961 - 2007	0.76	1.94	0.8 (14.52)*	Model IV
lngy	-0.37 (-1.68)**	-0.03 (3.02)*	0.02 (0.45)	1961- 2007	0.75	1.93	0.89 (14.74)*	

Notes: (a) ρa = first-order autocorrelation coefficient if DW indicated such autocorrelation in the residuals (b) Figures within parentheses are t-statistic and * and ** shows significance at 5% and 10% levels respectively.

Tables 1 and 2 show the elasticity estimates of the four models. WL does not hold for 1961 - 2007, 1973 - 1990and 1991 - 2007 periods for the aggregate expenditure and income. However, the elasticity is positive for the period 1960 - 1972 and there is no autocorrelation problem. This result is in agreement with Tariq (1987) and Khan (1990) who has also provided the rationale. Similarly, the WL holds for expenditure on administration for 1981 - 2007 and 1991 - 2007 and development expenditure for 1991 - 2007 though the coefficient is very small. It does not hold water when the expenditure is disaggregated into defence and interest payments for both periods1981 - 2007 and 1991 - 2007. Our results are in disagreement with Tariq (1987) as he used different periods. Khan (1990, 116) pointed out that Wagner's law is truly a dynamic law which describes the change over time in a particular country. However, WL holds for the period 1981 - 1991 when fiscal deficit (fdy) is included in model III. When we include population in Model IV, the WL does not hold. Furthermore, first-order autocorrelation coefficient is significant except for 1960 – 1972. Therefore, elasticity estimates are interpreted with great caution.

Unit root and cointegration

For ADF unit root test, the test critical values at 1, 5 and 10% levels are -4.17, -3.51 and -3.18 respectively and the associated MacKinnon (1996) one-sided p-values are given in parentheses and p shows the corresponding lag values used in ADF test. When the ADF absolute values are less than the Dickey-Fuller (DF) or MacKinnon critical τ values we do not reject the hypothesis that H_0: $\gamma = 0$, the given time series has a unit root that is it is nonstationary.

All the ADF values for with trend except population are less than the critical values. The Mackinnon (1996) one-sided p-values are also smaller. We do not reject the null hypothesis that the series have a unit root (Table 3) in level

Table 3. ADF test results.

Variable (log)	Level with trend	P	First difference with trend	P
gy	-2.11 (0.52)*	0	-7.11(0.000)	1
y_p	-1.21 (0.89)	2	-6.67 (0.000)	1
fdy	-1.50 (0.82)	7	-6.44(0.000)	3
admny	-2.44(0.35)	0	-6.74(0.000)	0
defy	-2.03(0.55)	0	-4.39(009)	0
devy	-0.74(0.95)	0	-4.71(0.005)	0
inty	-0.05 (0.99)	0	-5.45(0.008)	0
y	-3.31(0.07)	1	-6.91(0.001)	1
pg	-7.23(0.000)	0	-5.94(0.0001)	3

*MacKinnon (1996) one-sided p - values.

form except population. However, the null hypothesis that the first difference series is nonstationary is rejected by both the conventional critical values, and the Mackinnon (1996) one-sided p-values. All variables are first difference stationary implying that these are all nonstationary in level form.

We now apply the Johansen cointegration test to see whether the variables are cointegrated or not suggesting long-run relationship. To apply this test it is imperative to determine the optimal lag length of the VAR. We used FPE (final prediction error), AIC (Akaike information criterion), and SC (Schwarz criterion] criteria to determine the lag length of the four models. SC supported lag 1 while FPE and AIC supported lag 3 for model I. Since short lag is optimal for the system, we preferred lag I for model I. The three criteria are in agreement for VAR lag order selection for Model II, III and IV. The three criteria supported lag 1 as the optimal lag for the latter models (for space consideration VAR lag order results are not reported).

Johansen cointegration results for models I at lag 1 supported by SC (Table 4) shows absence of cointegration because the null hypothesis of no cointegration ($H_{0:}$ r = 0) is not rejected by both the tests. Similarly there was no cointegration at lag 3 supported by AIC and FPE for model I. (Results not reported to conserve space but available upon request). Similarly for model II there is no cointegration between admny, defy, devy, inty and yp (Table 5). For models III and IV, we also find no evidence of cointegration based on both λ_{max} and λ_{trace} statistics (Table 6).

Granger causality

The major implication of the WL is that the share of public expenditure in national income will grow in size with the economic growth. It is the increase in income that leads to an increasing magnitude of public spending. Therefore, according to Wagner's law causality runs from national income to public expenditure. Singh and Sahni (1984) argue that the relationship between public spending and national income has been explored from two different perspectives. The Wagnerian approach used in public finance studies has been based on the assumption that growth in national income causes growth in public expenditure.

While the Keynesian approach used in the macroeconometric models contends that growth in public expenditure partly determines the income growth. The two approaches are based on different assumptions. The former approach views public expenditure as a behavioural variable; public expenditure is considered as an exogenous policy instrument for aggregate demand management in the Keynesian approach. Singh and Sahni (1984) and Sahni and Singh (1984) pioneered the application of the Granger causality test to public expenditure and national income. Causality studies have been done in both developed and developing countries and these have reported diverse results on the validity of WL (Singh and Sahni, 1984; Sahni and Singh, 1984; Mohsin et al., 1995; Singh and Sahni, 1986; Afxentiou and Serletis, 1991; Oxley, 1994).

Singh and Sahni (1984) and Sahni and Singh (1984) studied the direction of causality between national income and public expenditure for India and Canada. They reported bidirectional causality between national income and aggregate public spending for both countries. Mohsin et al. (1995) studied WL for 20 countries and found long-run relationship between public expenditure and national income in twelve countries for a sample of twenty countries. However, the Granger causality test did not provide support for the law in the twelve countries. Using Pakistan's data on public spending and income and other categories, we want to see which approach (WL or Keynesian) is supported. Whether the causality runs from income to public spending or from spending to income? For this purpose we use the two-way causality.

The causality results show that WL holds for defence and interest rate expenditures but the law does not hold for aggregate public expenditure (Table 7). In model III there is unidirectional causality between fiscal deficit and public

Table 4. Johansen cointegration results for Model I - lngy lny_p

Null	Alternative	λ-max	5%CV	λ-trace	5%CV
H_0: r =0	H_1: r = 1	6.19	14.26	6.27	15.49
H_0: r ≤1	H_1: r = 2	0.08	3.84	0.08	3.84

Table 5. Bivariate results of Johansen's method: Model II-admny, defy, devy, inty; yp

Null	Alternative	λ-max	5%CV	λ-trace	5%CV
		A. lnadmny lny_p			
H_0: r =0	H_1: r = 1	7.64	14.26	8.23	15.49
H_0: r ≤1	H_1: r = 2	0.58	3.84	0.58	3.84
		B. lndefy lny_p			
H_0: r =0	H_1: r = 1	7.82	14.26	9.83	15.49
H_0: r ≤1	H_1: r = 2	2.01	3.84	2.01	3.84146
		C. lndevy lny_p			
H_0: r =0	H_1: r = 1	7.61	14.26	8.12	15.49
H_0: r ≤1	H_1: r = 2	0.51	3.84	0.51	3.84
		D. lninty lny_p			
H_0: r =0	H_1: r = 1	12.85106	14.26	13.02	15.49
H_0: r ≤1	H_1: r = 2	0.175556	3.84	0.17	3.84

Table 6. Cointegration results.

Model III - lngy, lnyp, lnfdy					
Null	Alternative	λ-max	5%CV	λ-trace	5%CV
H_0: r =0	H_1: r = 1	16.93	21.13	21.00	29.79
H_0: r ≤1	H_1: r = 2	3.99	14.26	4.08	15.49
H_0: r ≤2	H_1: r = 3	0.08	3.84	0.08	3.84
Model IV- lngy, lnyp, lnfdy lnpg					
H_0: r =0	H_1: r = 1	19.71	27.28	39.35	47.85
H_0: r ≤1	H_1: r = 2	16.59	21.13	19.63	29.79
H_0: r ≤2	H_1: r = 3	2.95	14.26	3.03	15.49
H_0: r ≤3	H_1: r = 4	0.08	3.84	0.08	3.84

spending as well as between fiscal deficit and income. In Model IV fiscal deficit causes public spending and economic development represented by real per capita income causes population growth (Table 8).

Conclusion

Wagner's hypothesis is a celebrated law of public spending that though not much clear, has received immense attention in the developed and developing countries. Wagner's law postulates a positive relationship between income and government spending and the direction of causality runs from income to public spending while in Keynesian theory government spending leads to increase in income. Some studies have supported it; in other studies it does not hold water. The validity and strength of the hypothesis depends on how the law has been approached by the authors particularly the nature of the data, period of the study, functional form(s), single- or cross

Table 7. Granger causality results

Null hypothesis	Obs	F-Statistic	Probability
Model 1			
lnyp does not Granger Cause lngy	46	0.46625	0.63063
lngy does not Granger Cause lnyp		0.86629	0.42806
Model II			
lnyp does not Granger Cause lnadmny	27	0.35429	0.55727
lnadmny does not Granger Cause lnyp		2.91285	0.10078
lnyp does not Granger Cause lndefy	27	6.80891	0.01537
lndefy does not Granger Cause lnyp		0.10780	0.74551
lnyp does not Granger Cause lndevy	27	1.24413	0.27572
lndevy does not Granger Cause lnyp		1.05412	0.31480
lnyp does not Granger Cause lninty	27	11.2625	0.00263
lninty does not Granger Cause lnyp		0.25180	0.62039

Table 8. Granger causality results

Null hypothesis	Obs	F-Statistic	Probability
Model III			
lnyp does not Granger Cause lngy	47	0.32147	0.57361
lngy does not Granger Cause lnyp		0.04413	0.83458
lnfdy does not Granger Cause lngy		3.22661	0.07932
lngy does not Granger Cause lnfdy		1.55558	0.21891
lnfdy does not Granger Cause lnyp		1.61091	0.21104
lnyp does not Granger Cause lnfdy		3.64652	0.06272
Model IV			
lnyp does not Granger Cause lngy	47	0.32147	0.57361
lngy does not Granger Cause lnyp		0.04413	0.83458
lnfdy does not Granger Cause lngy	47	3.22661	0.07932
lngy does not Granger Cause lnfdy		1.55558	0.21891
lnpg does not Granger Cause lngy	47	1.88601	0.17661
lngy does not Granger Cause lnpg		2.23752	0.14184
lnpg does not Granger Cause lnyp	47	0.02278	0.88071
lnyp does not Granger Cause lnpg		15.9565	0.00024

or cross-country and the method of estimation. In a study of 115 countries, Ram (1987) has reported that while the law is supported by some time-series studies, the cross-section studies lack the support. Emergence of time-series econometrics revived the interest to see the soundness of the law and again the support is mixed. Present paper focused on the reinvestigation of the application of the Wagner's hypothesis to Pakistan using a long-period data and employing traditional as wells time series econometrics techniques. We explored the relationship between aggregate government spending and the per capita income for four periods and the Wagner's hypothesis does not hold except for 1960 - 72 period. Similarly, the WL holds for expenditure on administration for 1981 - 2007 and 1991 - 2007 and development expenditure for 1991 - 2007 though the coefficient is very small. WL holds for the period 1981 - 1991 when fiscal deficit is included to the original model that supports the Keynesian views about public spending. When population growth added is along side fiscal deficit, WL did not hold. Elasticity estimates are interpreted with caution. No long-run relationship exists between aggregate expenditure and income as well as between disaggregated expenditures and income. The same relationship does not hold

when fiscal deficit and population growth are added.

There is no-causality between income and public spending. However, income Granger-causes defence-spending and interest payments.

There is unidirectional causality between fiscal deficit and public spending as well as between income and fiscal deficit. In Model IV economic development represented by real per capita income causes population growth.

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