

Investigating the Effects of Privatization on the Economic Growth in Developing Countries: a Dynamic Panel Analysis

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ABSTRACT

Considering that the economic adjustment policies have been proposed by international institutions for achieving a sustainable economic growth in the developing countries, the latter adopted privatization trend in economy following the application of economic adjustment policies. In this study, we investigated the effects of privatization on the economic growth of developing countries in 2000-2008. We selected a suitable model based on the past experimental studies, use of qualitative and institutional variables in economy as well as use of controlling variables for different regions. We used estimating methods with GMM (Generalized Moments Method) approach. The results of estimation show that privatization in MENA region (Middle East & North Africa) had negative and significant effects on the economic growth. In other regions (West Europe and Central Asia, South Asia, Latin America and Caribbean, West Asia and Pacific) it had positive and significant effects on the economic growth. (In South African Desert it had no significant effects.)

Keywords: Privatization, Economic Growth, Generalized Moments Methods (GMM), Developing Countries.

1. INTRODUCTION

Privatization process is an approach to gradually access to the market mechanism in which the countries with government intervention allocate a part of public and governmental ownerships to individuals and private sector. It is generally believed that the private sector has a higher motivation for activity since it seeks to maximize benefit and in such a condition, limited resources of society are allocated optimally and efficiently.

Now, if market mechanism has been a basic factor towards economic growth and prosperity of industrial advanced countries and if privatization process is considered as an effective step towards achieving a competitive society based on open market economy, it can be hoped that a certain ratio of higher economic growth and development will be achieved as the privatization process increases in the countries.

The objective of this study is to examine the impact of privatization on economic growth in development countries between 2000 and 2008. The study therefore seeks to examine whether the privatization programs implemented by most developing countries between 2000 and 2008 had a positive effect on output growth as suggested by the advocates of privatization

2. Theoretical Framework

Theoretical principles concerning privatization in the economy are associated with the following three theoretical principles: Property rights theory, Principal-agent theory, and Public choice theory. The main assumption of privatization theories is that the free forces of market increase the efficiency of a firm.

Property rights theory states that people should respect the allocation of resources in social and economic relations. Owners of companies should address the losses they cause to others against the profit they gain (Starr, 1988). In fact, property rights establish a claim for its personal owners concerning the properties of a private company (Hanke, 1987). It can be said that since managers of public companies have no right to claim for the company's revenues, their managerial efficiency is lower than that of private companies due to lack of any motivation (Megginson, 2005). Alchian believes that public companies are essentially inefficient because their owners (i.e., citizens) who are scattered have no motive to supervise on the performance of managers of those companies (Alchian, 1965).

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In the Public Choice Theory it is assumed that the internal motives of individuals make them seek reasonable maximization of desirability whether in the market or in the policy (Hodge, 2000; Abu Shair, 1997).

One of the characteristics of such companies is the execution of public companies' rules which is imposed on managers. This can be contradictory to the efficiency of such companies. Basically, politicians disturb the activities of public companies. They mostly encourage efficiency in those companies to gain votes (Buchanan, 1972).

As for the public choice theory, in the principal-agent theory it is also assumed that managers of both public and private companies seek to maximize the desirability of the owners of companies. But the point which makes a difference between private and public companies is that moral hazard and adverse selection are less likely in the private companies. External mechanisms (corruption control) and internal mechanisms (motivating the board of directors) are used to minimize such problems (Cuervo and Villalonga, 2000).

Shleifer (1988) believes that higher motivation of private managers towards innovation leads to higher efficiency of most private firms as compared to public firms. Agency theories show that since private firms have clear objectives, it is easier for its owners to audit managers' performance (Vickers and Yarrow, 1998; Dharwadkar et al, 2000) and that managers perform better in private companies than in public companies. Therefore, privatization theories are based on the fact that public companies are inefficient because of their high exchange costs – the costs for protection and execution of ownership and goods right.

Ultimately, it can be said that privatization is the result of expecting the betterment of firms' activities by changing mechanisms the affect on the motivation of managers through institutional differences (Laffont and Tirole, 1991).

Plane (1997) and Barnett (2000) came to the conclusion that privatization had positive and significant effects on economic growth. This is while Filipovice (2005) and Cook and Uchida (2003) drew opposite results. Besides the effects of privatization and economic growth, Barnett (2000) also investigated the relation between privatization and economic and financial modifications for 18 countries out of which 12 were developing countries. He showed that privatization was relevant to macro economic modifications that would be fulfilled by a higher economic growth and lower unemployment. Gupta et al. (1999) reviewed various methods of privatization in the transition economies and reported that privatization promotes economic efficiency and growth. Zinnes et al. (2001) make the same argument in their analysis of the impact of privatization on economic growth in the transition economies of Eastern Europe. They report that change of ownership is not enough to ensure the success of privatization. More important, Zinnes et al.'s (2001) report that the mere change of ownership from the public to private sector may have a negative impact on transitional economies. The study concludes that only when there is deep privatization that improved performance could be assured (Samuel adams, 2006)

In a study made by Cook and Uchida (2003) on 63 developing countries in 1988-1997, they came to a negative relation between privatization and economic growth. They showed that a strong negative relation between privatization and economic growth would be achieved if Malaysia and Singapore were set aside.

Similarly, in a study on 92 developing countries Filipovice (2005) came to a negative but insignificance relation between privatization and economic growth.

In this paper, we use a cross-country study to investigate the effects of privatization on the economic growth. For this purpose we using from 41 developing countries in the years 2000-2008.

3. RESEARCH METHODOLOGY

The goal of this study is to investigate the effects of privatization on the economic growth. The choice of the explanatory variable was informed by prior literature (Cook and Uchida, 2003; Plane, 1997; Barnett, 2000; Filipovic, 2005, Samuel adams, 2006).

Growth equation is defined as follows:

$$Y = \alpha_0 + \alpha_1 B + \alpha_2 Z + \alpha_3 PR + \alpha_4 D_i + \alpha_5 PR * D_i + \alpha_6 PR * OPEN + \alpha_7 PR * FDI + U \quad (1)$$

Where, Y is the growth rate of per capita GDP, B is a set of variables including (SEC) human capital stock (level of enrollment in high school has been considered as an index of human development), (POP) population growth rate, (INF) inflation rate, (FDI) foreign direct investment. Population growth rate is

include to control for the fact that the benefits of an economic policy may be diluted by high population growth rate (Bornschiefer et al, 1978). The ratio of FDI to GDP is included on assumption that FDI may play a significant role in generating positive spillover effects, in terms of new technologies and management skills that contribute to growth (Cook and Uchida, 2003; Samuel Adams, 2006).

PR is privatization revenues as a percentage of GDP, Z is a set of variables encompassing the conditions of investigated countries including variables such as economic openness degree (OPEN) (total imports and exports of a country in terms of a percentage of gross domestic production) and variables indicating political and qualitative factors of each economy that have an important role in economic growth and privatization process. In this study we used variables such as corruption control (CORP), government accountability index (ACCOUNT), and political stability index (POLITC) presented by Kaufmann et al (2009).

D_i is a variable for controlling regional difference. (Basic group of North and West Africa and Middle East countries (MENA Region) has been taken into consideration)

4. EXPERIMENTAL RESULTS

Estimations of GMM method have a higher efficiency for estimating dynamic models of panel data since they increase the efficiency and accuracy of estimation by selecting the best instruments for estimating society's moments.

First we begin with a simple model (model No. 1). In the next stage, we input institutional and political variables into the model (model No. 2). In the next stage (model No. 3), we investigate if the effects of privatization on the economic growth will be influenced by the economic openness degree and foreign direct investment.

In the final stage, we investigate the difference of privatization effects on the economic growth in different regions (model No. 4). (In this model, the mutual effects of privatization with other variables are maintained).

The results of final model show that privatization in the basic region (MENA region) had negative and significant effects on the economic growth (it had no significant effects on the South African Desert countries).

Moreover, it can be said that based on the final model (model No. 4), foreign direct investment and economic openness degree had positive but insignificant effects on the economic growth. Population growth rate had negative and insignificant effects on the economic growth.

Of qualitative and political control variables, corruption control variable had positive effects and economic stability and government accountability had negative effects on the economic growth.

In all the estimated models using GMM method, GR(-1) and GR(-2) instruments and lags of explanatory variables were used. To ensure if the selected instruments are suitable and valid, we use Sargan statistic (**J-statistic**). The results of Sargan statistic show that the selected instruments in all the models are valid.

Moreover, in order to investigate the lack of self-correlation in the residual series of the model, we used the normal test (**Prob (J-B)**) of standard residual component of estimated model. This test shows that there is no self-correlation in all the estimated models.

Table 1. Estimation of economic growth equation using GMM method

<i>Explanatory Variables</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
GR(-1)	-1.218 (0.000)	-0.144 (0.14)	-0.86 (0.000)	-0.819 (0.000)
GR(-2)	0.38 (0.000)	0.055 (0.348)	-0.386 (0.000)	-0.138 (0.002)
PR	2.62E-05 (0.000)	7.14E-05 (0.000)	0.002 (0.000)	-0.008 (0.028)
FDI	0.282 (0.000)	0.21 (0.036)	-0.544 (0.1)	0.018 (0.805)
HC	0.086 (0.000)	-0.99 (0.000)	-1.365 (0.000)	0.229 (0.000)
INF	0.064 (0.000)	0.056 (0.003)	0.171 (0.000)	0.03 (0.002)
OPEN	0.08 (0.000)	-0.02 (0.638)	0.144 (0.07)	0.018 (0.435)
POP	-3.1 (0.000)	-4.107 (0.234)	-13.662 (0.021)	-0.02 (0.979)
CORR	–	8.27 (0.001)	-12.8 (0.058)	1.08 (0.35)
POLIT	–	2.116 (0.204)	0.901 (0.63)	-0.95 (0.227)
ACCOUNT	–	-8.147 (0.013)	-13.417 (0.007)	-2.542 (0.04)
PR*OPEN	–	–	-3.09E-05 (0.000)	8.05E-06 (0.09)
PR*FDI	–	–	7.75E-05 (0.314)	-8.67E-06 (0.56)
PR* WECA	–	–	–	0.008 (0.03)
PR*WAP	–	–	–	0.008 (0.031)
PR*SA	–	–	–	0.013 (0.01)
PR*SAF	–	–	–	0.001 (0.78)
PR*LAC	–	–	–	0.009 (0.021)
R-squared	-0.54	-1.302	-3.98	-1.596
J-statistic	28.823	18.891	12.302	9.789
Instrument rank	33	29	29	31
Prob (J)	0.316	0.398	0.722	0.730
Prob(J-B)	0.000	0.000	0.000	0.000

Note: The parentheses indicate significance level of estimated coefficients (P-values).

WECA=West Europe and Central Asia, SA=South Asia, LAC=Latin America and Caribbean, WAP=West Asia and Pacific, SAF=South African

5. Conclusion

In this study, we sought to investigate the influence level of privatization on the economic growth, but as we explained in the review of experimental models, the results of previous studies were not consistent in the significance of privatization effects on the economic growth. In this study, we used three qualitative variables (corruption control, political stability and government accountability index) that influence on the confidence and internal security of economy for agents and lead to economic growth and establishment of a suitable environment for privatization development. In this study, we considered 41 developing countries which were not so much different in development for the years 2000-2008. We used GMM method for estimation.

The results of estimation show that privatization in the basic region (MENA region) had negative and significant effects on the economic growth. In other regions, it had positive and significant effects on the economic growth. (It had no significant effects in the South African Desert countries). Moreover, foreign direct investment and economic openness degree had positive and insignificant effects on the economic growth. Human capital and inflation rate indexes had quite positive and significant effects on the economic growth.

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