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The eventuality of property rights on economic growth in developing countries

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Abstract

One of the most important Factors for economic growth in each society is protecting property rights which can present Freedom, Safety and Justice that can lead to economic growth. For this purpose I tried to not only define the property rights but also accumulation of physical and human capital and also on economic growth. This study uses Dincer's (2007) model who suggests neoclassical growth model proposed by Mankiu *et al.* (1992) to analyze the effects of the property rights protection on the levels of economic performance. This study consists of 19 developing countries. The collected data covers the period from 2000-2010. It also predicts that protecting property rights has a positive effect on the accumulation of physical and human capital and economic growth.

Keywords: Property Rights, Human Capital, Physical Capital, Economic Growth

Introduction

The World Bank emphasizes on the importance, of the protection of property rights and its guarantee, for the economic development of the underprivileged countries in the globe[1]. The original theme of the book by Olson also relates to the fact that, economy in the novel world, is assured under the two following conditions:

1. Individuals must have a vast aggregate of warrantee rights, (in particular, property rights and agreements)
2. Owners should not be under predation or be inflicted by the private sector or government.

The mechanism under consideration in this research is the effects of the protection of property rights, in relevance to the physical and human investments or capital accumulated, followed by the economic performance, which is measured by the level of the gross domestic product (GDP). In this study, the rule of law index prevails and one of the aspects that this article wishes to put forth, is the rank attained for this index, as a proxy for the protection of property rights.

Dincer(2007), by incrementing to the variables in supporting the property rights, according to the model of Mankiw, Romer and Vale (1992), ushered a new analyses level and illustrated that, alike the former studies, the accumulation of physical and human capital and as a result, the per capita GDP between countries, with degrees of protection of property rights, as well as saving rates, there is a positive connection[2].

As Keefer and Knack (1997) argues inadequate institutions degrade the protection of property rights which can be broadly defined as the rights of firm to assets and to the revenue streams generated by assets. Poor protection of property rights threatens the firms with the loss of assets. According to Clague *et al* (1997), the risk of such loss is greater than more firms in an economy specialize. On the other hand, it is precisely the specialization that determines the economic performance of an economy.

[1] Institute for Trade Studies and Research, (1999), Pg. (10), Samadi, Ali Hassan, (2010), " The Concept of Economic Property Rights: An institutionalism approach", Section of Rights, Law and Political Science College, subject articles, 101, Pg. 184

[2]Dincer, O.C, (2007), The effects of property rights on economic performance, Applied Economics, Vol. (39), No. 7, pp. 825-839

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As Hall and Jones (1997) argue, the levels of economic performance vary considerably across countries and the differences are typically persistent over time. Analyses based on an aggregate production function, such as the one by Mankiw *et al.* (1992) (henceforth MRW), following the classic article of Solow (1956) provide some important insight into these differences. The main source of variation is identified as differences in capital accumulation, both physical and human. Nevertheless, levels accounting exercises, such as Hall and Jones (1999), show that the differences in physical and human capital accumulation explain only a small fraction of the differences in the levels of economic performance across countries, leading the economists to propose institutions as possible explanatory variables.

Related Literature

Though, in the decade of the '70's, a specific attention was focused on the institutions and the new economy of "institutionalism" was also founded. But the infiltration of varied institutions on a communal basis, property rights and its relative problems can be specifically seen to have attained augmentation patterns from 1990 onwards. Hence, beyond this period, varied methods for patterning and resolving economic growth patterns, as always, explain the differences of the institutional representatives. Such that four patterns can be indicated to, these are:

1. Views on the acts or actions
2. Integration patterns of generations
3. Other mathematical methods
4. Coded Patterns

In the studies of Teng (2000) and Sylwester (2001), these studies are close to the framework of views on acts or actions. Teng has construed an act in two phases with two players, the "sovereignty of the Government" and a large number of "economic agents or mediators". Sylwester has also constructed an act in two phases, in which, it is surmised that a part of the production is negated from the entrepreneurs towards property.

Studies of Svensson (1998), Gradstein (2004) including Dincer and Ellis (2005), were some studies, where the pattern of framework of growth patterns of integrating generations did not affect the complete protection of property rights, as to the augmentation and accumulation of capital which has been analyzed; *e.g.* Svensson (1998) rendered a political pattern, from an institutional modification pattern and pursued to determine the amount of optimum cost selected for the level of efficiency in the legal system, or (the equilibrium of capital in the legal infrastructures). Svensson's pattern is an integrating pattern of generations, consisting of two sections, being the private and government sectors. In general, it discusses the concept that institutional reforms are influenced by political considerations. In this study, according to the interests of the mediating representatives, the discounted aggregate, is the per capita consumption in the private and government sectors. The consumer also represents a maximum beneficial welfare with a restricted consumption in the first and second sequences. It may be assumed that, in the first series, there is an absence of production; and likewise, consumption in the second series, is formed by incomes arising from domestic and foreign capital. But in relevance to the incomes that usher from domestic investments, the efficiency criteria for the legal system (λ) have been denoted as ($1-\lambda$). The total results obtained in resolving his pattern has illustrated that, governments of polarized and instable societies have slighter inclinations in capitals or investments in legal infrastructures. This matter causes a weak implementation in property rights and thereby, there shall be a reduction in the domestic level of investments[3].

In the coded patterns, efforts have been made to designate the shortcomings of property rights in economic growth patterns and formulate them. An immense part of such studies are spent on the imperfect protection of property rights, such as, a decrease in capital or investments due to predation and political bribery. The aspect of predation is so discussed that, because of the absence of a protection of property rights, a set of economic factors can get involved in the predation of a percentage of the production of others without any effort. This matter reduces the incentives for investments and production.

Studies pertaining to Gonzalez (2007), Mino (2006), Tornell and Valesco (1992), Grossman and Kim (1996), Tornell and Lane (1999), Lindner and Stulik (2004), Van Long and Surger (2006), are some of the studies, in which, the imperfect property rights have been analyzed as a common pool. In other words, due to the fact that, the results of the investments of individuals are in predation by others, individuals give up hope where investments are concerned and hence, property rights are not protected, thus, bringing about a reduction in economic growth. The entire of these studies have been performed within the framework of coded patterns. In economic patterns that are relevant to predation, the productive and appropriative facets (negated property) are assimilated and analyzed. In

[3] Svensson, J. (1998). Investment, property right and political instability; theory and evidence. European Economic Review, Vol. (42), 1317-1341 and p. 13250

the current text, Grossman and Kim have theorized predation within the sphere of economic growth. This exclusive research derives the correlation between two groups of individuals, namely, those who engage in the act of predation and individuals who are inflicted by the potentials of predation have been put under analyses. Such that, it is presumed that these individuals are orders of generations of a family, clan or even a nation. Every generation from each 'dynasty' makes decisions, similar to known growth patterns, to allocate its subsisting wealth between consumption and investment productivity. Though, in contrary, to the theoretical patterns, where it is assumed that individuals, in addition, to deploying their subsisting wealth, to being allocated between consumption and investment productivity, also allot it between offensive and defensive activities. By resolving the constructed visual patterns, the result that comes to hand is that, the rate of accumulated capital and that, the protection of property rights, is only for the generations of dynasties under the infliction of predation, with which it has a direct connection. The other and in the general attainments from this study, is the fact that, in contrary to the conventional wisdom, a better protection of property rights can lead to a slower accumulation of capital[4].

In a number of studies, such as some of those in relevance to Palda (1999), Grossman and Kim (1995), Anderson and Bandiera (2005), methods, other than the alleviation of coded patterns, integrated patterns of generations and views on the acts or actions have been utilized. Palda has constructed a pattern, in which, the individual is selected for being productive or is in the pursuance of performing bribery actions. In this pattern some of the individuals produce wealth, whereas, some others utilize the wealth of others and indulge in their predation. Moreover, property right conditions are measured with parameters that are a part of the incomes present, which have capacities of being extorted, by those assimilations sought bribery actions, Palda[5]. Palda relates the optimum level of property rights to a number of those who sought bribery actions and concludes that, in the empirical tests, of the unequal impacts of income, as to the growth of economy, the correlation between property rights and the redistribution of income must be taken into view. This study was carried out within the framework of other mathematical methods.

[4]Grossman H.I. and M. Kim (1996). Predation and Accumulation. Journal of Economic Growth, Vol. (1), pp. 333-350 and P. 3460

[5]Palda. F, (1999), Property Rights vs. Redistribution; Which path to national wealth? Public Choice" Vol. (101), pp. 129-145 and P. 1400

In the present study, a survey of the effects of the protection of property rights, as to the accumulation of physical and human capital and its impacts on the economic performance is followed. The economic performance utilized here is the domestic gross production.

Materials and Methods

The Model

One of the most influential models analyzing the differences in the levels of economic performance across countries in the economic growth literature is the neoclassical growth model of MRW. MRW find that the accumulation of physical and human capital is the main factor explaining the differences in the levels of economic performance across countries. Nevertheless, they do not provide any explanation about the sources of the differences in the accumulation of physical and human capital other than the saving rates. In other words, they simply suggest that, holding the labor growth constant, countries with higher saving rates have higher levels of capital stock, both physical and human, per unit of labor and hence higher levels of output per unit of labor. On the other hand, as mentioned earlier, institutions that protect property rights are crucial for the accumulation of physical and human capital. Therefore, without the institution their model is incomplete.

For a better understanding of the cross country differences in the levels of economic performance, a model beyond the neoclassical growth model of MRW is needed. Augmenting their model by introducing the property rights protection provides some important additional insight.

Following the neoclassical growth model of MRW in the augmented model, there is assumed to be only one commodity, output as a whole, y (1), which can be consumed. C (t) or invested to create new unit of physical capital, K(t) and human capital H(t). A constant fraction, sk, of output is saved and invested in physical capital and a constant fraction, sk, of output is saved and invested in human capital. Both physical and human capital are assumed to depreciate at a constant rate s. On the other hand, the accumulation of net capital stock, physical and human, does not only depend on sk and sh and s, but also on the degree of property rights protection, p, which is assumed to be exogenously determined. Assuming that the effect of the degree of property rights protection on physical capital differs from the effect on human capital accumulation, the net, the effect of property rights on economic performance

Increase in the stock of physical capital and the net; Increase in the stock of human capital at a point in time are given by

$$\dot{K}(t) = pks_k^{pk} Y(t) - \delta K(t)$$

$$\dot{H}(t) = phs_h^{ph} Y(t) - \delta H(t)$$

$$0 \le pk, h \le 1, 1 + pk \ln sk \succ 0 \quad (1)$$

Where $pk = p^{\sigma}$, $ph = p^{\phi} and 0 \prec \sigma, \phi \prec 1$

Property rights are fully protected, as MRW implicitly assumes p is equal to 1. If. on the other hand, the property rights are not fully protect I. e. if p is smaller than 1, part of output supposed to be invested in physical and human capital is used for protection purposes, retarding the net increase in the stock of physical capital and of human capital

As in the neoclassical growth model of MRW, protection at a point in time is given by the protection function which takes the from

$$Y(t) = k(t)^{\alpha} H(t)^{\beta} \left[A(t)L(t)\right]^{1-\alpha-\beta}$$

$$\alpha \succ 0, \beta \succ 0, \alpha + \beta \prec 1 \quad (2)$$

Where L(t) stands for labour and A(t) stands for knowledge or effectiveness of labor. Since the protection function exhibits constant returns to scale in the three arguments, physical capital, human capital and effective labour, it can be written in intensive form as:

$y(t) = k(t)^{\alpha} h(t)^{\beta}$, where y = Y | AL

Stands for output per effective unit of labour, k = k | AL stands for physical capital per effective unit of labour and h=H | AL stands for human capital per effective unit of labour.

Labour and knowledge are assumed to grow exogenously at rates n and g, respectively:

$$\dot{L}(t) = nL(t) \text{ and } \dot{A}(t) = g\,A(t) \quad (3)$$

Given that evolution of labour and knowledge is assumed to be exogenous, the behaviour of the economy is characterized by the evolution of capital, both physical and human:

$$\dot{k}(t) = pks_k^{pk} K(t)^{\alpha} h(t)^{\beta} - (n + g + \delta)k(t)$$

$$\dot{H}(t) = phs_h^{ph} K(t)^{\alpha} h(t)^{\beta} - (n + g + \delta)h(t) \quad (4)$$

Since there are decreasing returns to both physical and human capital. Therefore both physical capital per effective unit of labour and human capital per effective unit of labour converge to respective steady state levels k* and h* given by

$$k^* = \left(\frac{p_k^{(1-\beta)} p_h^{\beta} s_k^{pk(1-\beta)} s_h^{ph\beta}}{n + g + \delta} \right)^{1/(1-\alpha-\beta)}$$

$$h^* = \left(\frac{p_k^{\alpha} p_h^{(1-\alpha)} s_k^{pk\alpha} s_h^{ph(1-\alpha)}}{n + g + \delta} \right)^{1/(1-\alpha-\beta)} \quad (5)$$

The augmented model attempts to answer the questions regarding the effects of degree of property rights protection as well as the effects of the saving rates on output. Substituting the steady state levels of physical and human capital per effective unit of labour k* and h*, given in Equation 2 and taking logs give the steady state level of output per unit of labour:

$$In\left(\frac{Y}{L}\right)^* = y + \frac{\alpha}{1-\alpha-\beta} Lnpk + \frac{\beta}{1-\alpha-\beta} Lnpk + pk\frac{\alpha}{1-\alpha-\beta} Lnsk + ph\frac{\beta}{1-\alpha-\beta} Lnsh - \frac{\alpha+\beta}{1-\alpha-\beta} Ln(n+g+\delta) \quad (6)$$

As far as the effects of labour growth on output are concerned. There is a negative relationship between the steady state level of output per labour and the labour growth. The elasticity of output per unit of labour with respect to (n+g+s) is equal to $(\alpha - \beta)/(1 - \alpha - \beta)$

The augmented model also suggests that the accumulation of physical and human capital is the main factor explaining the differences in the levels of economic performance across countries.

Nevertheless, in the augmented model, the accumulation of capital, both physical and human, is determined by the degree of property rights protection as well as the saving rates. In other words, the augmented model demonstrates that holding the labour growth constant, countries with higher saving rates do not necessarily have higher levels of capital stock per unit of labour and hence do not necessarily have higher levels of output per unit of labour.

The degree of property rights protection is as important as the saving rates. Perhaps even more important.

Empirical Analysis

MRW suggest the following specification to invest – gate the predictions regarding the determinants of output:

Where gdp denotes the steady state level of output per unit of labour and physicalk and humank denote the saving rates devoted to physical and human capital, sk and sh respectively. Finally population denotes the sum of the growth rate of labour, of knowledge and the depreciation rate (n+g+s). The coefficients of interest are the ones which determine the elasticity of output with respect to the saving rates physicalk and humank.

$$Lngdp = \lambda_0 + \lambda_1 Lnphysicalk + \lambda_2 Lnhumank + \lambda_3 Lnpopulation + u \quad (7)$$

Augmenting the neoclassical growth model of MRW by introducing the degree of property rights protection leads to a number of significant changes in the empirical specification given above:

$$protect\ Lngdp = \varepsilon_0 + \varepsilon_1 Ln\ protect + \varepsilon_2 In\ protect\ protect + \varepsilon_2 Ln\ humank + \varepsilon_3 protect\ In$$

$$physicalk + \varepsilon_4 Ln\ humank + \varepsilon_5 \overline{protect}\ In\ humank + \varepsilon_6 In\ population + \varepsilon \quad (8)$$

Where and $\overline{protect}$ denote pk and ph respectively in this specification the degree of property rights protection protect does not only affect output, but also affects the elasticity of output with respect to saving rates. Hence, the coefficients of the terms interacting physicalk and human with and $\overline{protect}$ deserve particular attention.

Data

The data extracted during a period of time, *i.e.* from the year 2000 to the year 2010, is from the World Bank[6] and the International Country Risk Guide (ICRG). The average share of private investments, net incomes and net current transfers in gross national income (GNI) to measure the amount of saving rate allotted to physical capital (*physicalk)*; and the average share of the total number registered of those enrolled in the secondary school, relating to a population of an age group which officially can enter the secondary school as a proxy, for the rate which has been allocated to the human capital (*humank)*, was thus utilized.

As a proxy for the extent of (property rights protection) *protect*, the rule of law index is used. This index has been constructed by Stephen Knack and the IRIS Center of University of Maryland from the ICRG data. The rule of law index (in figures) is from (0) to (6) and reflects the degree that citizens of a country are receptive to the acceptance of the established institutions, in order to formulate and execute laws and arbitrate disputes and complaints.

Knack and Keefer proclaim that, higher levels demonstrate political institutions that are sound, with a fortified and firm judiciary system, including regularized regulation criterions for the succession of power. The lower levels illustrate the presence of tradition in the society, which depends on a kind of physical force or resorts to illegality to settle and resolve disputes.

As formerly mentioned, the rule of law index has variable proxies for varied property protection rights, which has figures ranging from (0) to (6). If this index amount is between (0) and (1), it demonstrates a low degree in relevance to the property rights protection, whereas, if it is between (2) and (4) this shows a mediocre level in this regard and if the index figures stand in the range of (4) and (6), this entails a high level of protection of property rights. In this study, ranks pertaining to this index have been used.

Samples under survey

Data for the variables and similarly, the rule of law index is available for approximately 100 countries. Samples under survey in this thesis are **36** countries, comprising of 19 developing countries and 17 developed countries. These countries have been listed in this thesis in Tables (1 to 5) and can be segregated according to the rule of law index.

Specification of Model

The neoclassical growth models proposed by Mankiw, Romer and Vale, for predicting effective factors for production and growth, are as hereunder:

$\ln GDP = \beta. + \beta_1 \ln physicalk + \beta_2 \ln humank + \beta_3 \ln population + u$

In which, GDP denotes the stability level of effective manpower production, whereas, *physicalk* and *humank,* illustrate the saving rates devoted to the physical and human capital that are according to the respective equations of $\mathbf{s_k}$ and $\mathbf{s_h}$. Population signifies the total growth rate of manpower and the rate of depreciation that is $(n + g + \delta)$.

[6]World Bank Development Indicators (WDI)

The neoclassic growth model is not extensive in relation to the high and critical changes followed, that are displayed in it in the following form.

$$\ln gdp = \beta_0 + \beta_1 \ln protect + \beta_2 \ln protect + \beta_3 \ln physicalk + \beta_4 protect \ln physicalk +$$
$$+ \beta_5 \ln humank + \beta_6 protect \ln humank + \beta_7 \ln poulation + \varepsilon$$

In which *protect* and *protect* are in the order of Pk and Ph and in this relation, the degree of property protection rights does not leave an impact on the production only, but also has an effect on the elasticity's of production in relative to the saving rates. On one hand, the coefficient amendments that illustrate the interaction of *physicalk* and *protect* and that of *humank* and *protect* are of special importance[7]. The importance of this interaction is due to mechanisms for effects in the degree of the property rights protection, as to the economic growth that is taken into consideration.

The degree of property rights protection is measured from two courses, these being the direct effects and effects on the accumulation of physical and human capital, including the economic performance, which is measured by the level of GDP capital and alleviates it. On the other hand, the interaction of the degree of property rights protection and saving rates show the second course of effects of the levels of property rights protection, in relation to the economic performance, which is also supplemented in the model.

Specification of Model

The model utilized in this study is according to the founding of views in the connection between the property rights and economic growth, with the help of Dincer's Model (2007), which has been rendered as follows:

$$\log GDP = f(\log s, \log z, \log W, W \log s, W \log z)$$

GDP: Gross Domestic Produce (economic growth)

S: Is the average share of the aggregate of the secondary school enrollment to the population of the age group that officially relates to the secondary school as a proxy for the saving rates allotted to human capital *humank,* have been utilized.

Z: Net income and net current transfers in actual gross incomes per capita for measuring the amount of savings devoted to the physical capital *i.e. physicalk* variables, have been utilized.

(Capital formation + Current Transfer + Net Income) / (GNP)

W: As a proxy for the degrees or levels of property protection rights, the rule of law index has been used. In this research the rank of countries has been utilized.

Data

The data extracted during a period of time, *i.e.* from the year 2000 to the year 2010, is from the World Bank[8] and the International Country Risk Guide (ICRG). The average share of private investments, net incomes and net current transfers in gross national income (GNI) to measure the amount of saving rate allotted to physical capital (*physicalk)* has been utilized and the average share of the aggregate of the secondary school enrollment to the population of the age group that officially relates to the secondary school as a proxy for the saving rates allotted to human capital *humank,* has been utilized. Manpower, **L** has been taken into consideration for the population.

As a proxy for the degrees or levels of property protection rights, the rule of law index has been used. This index has been constructed by Stephen Knack and the IRIS Center of University of Maryland from the ICRG data. The rule of law index (in figures) is from (0) to (6) and reflects the degree that citizens of a country are receptive to the acceptance of the established institutions, in order to formulate and execute laws and arbitrate disputes and complaints.

Knack and Keefer proclaim that, higher levels demonstrate political institutions that are sound, with a fortified and firm judiciary system, including regularized regulation criterions for the succession of power. The *lowprotect* illustrate the presence of tradition in the society, which depends on a kind of physical force or resorts to illegality to settle and resolve disputes.

As formerly mentioned, the rule of law index has variable proxies for varied property protection rights, which has figures ranging from (0) to (6). If this index amount is between (0) and (1), it demonstrates a low degree in relevance to the property rights protection, whereas, if it is between (2) and (4) this shows a *medprotect* in this regard and if the index figures stand in the range of (4) and (6), this entails a high level of protection of property rights.

[7]Dincer,O. (2007), The Effects of Property Rights on Economic Performance. Journal of Applied Economics, 39 (7): 825-837

[8]World Bank Development Indicators (WDI)

Samples under survey

Data for the variables and similarly, the rule of law index is available for approximately 60 countries. Samples under survey in this thesis are 19 countries, comprising of 19 developing countries. These countries referred to, have been listed in this thesis and are in Table (1). These can be also be segregated according to the rule of law index.

Table 1: Samples under survey are 19 countries

Developing Countries	1. Albania.2. Argentina. 3. Brazil. 4. Columbia. 5. Dominicans.6. Guatemala. 7. Guinea. 8. Indonesia. 9. Iran. 10. Malaysia. 11. Mexico. 12. Nicaragua.13. Peru. 14. Philippines. 15. Romania. 16. Syria.17. Panama. 18. El Salvador.19. Kenya

As can be observed in Table (1), the countries have been segregated according to their status of development. In Table (2), countries are listed according to their degree of the rule of law index.

Results

Methods for the estimation of models for the developing groups of countries

In this thesis, in order to estimate the models designed to illustrate the relation between property rights and economic growth, with due attention to Dincer's Model (2007); and the integrated data paneled model in econometrics and the Eviews 7 Software, for estimating and determining the relevance between the varied models utilized. In this thesis, the TSLS[9] Model has been used.

Model estimations and analyses of results of developing countries

The TSLS Model is utilized in order to estimate the models used. The results of the models are as given below:

As can be observed, all the variables that have been applied to in the models are within the reliability level of being interpreted by 95 percent. The R^2 which has been attained in the said models is that, the independent variables of all the blocks under survey, explain 99 percent of the changes in the dependant GDP variables. In other words, they demonstrate that all the independent variables together, to the amount of 99 percent, illustrate the changes of the dependant variables. In addition, a low R^2 does not signify a poor estimation of the model. On the other hand, all the independent variables that have been applied to as in the property rights, human and physical capital, the effects of property rights as to human capital, the effects of property rights relation to the physical capital, each of which has an interpretation, as to these impacts. Moreover, the effects of the degree of the rule of law index, which, in other words is a proxy for the protection of property rights and proves to be positive and significant in relation to human capital; and in the same manner is effective in the degree of the rule of law index as to the physical capital which is also positive in significance.

Table 2. Countries classified according to institutional criterions

Countries of high institutional criteria	Countries of medium institutional criteria	Countries of low institutional criteria
Syria	Albania	Brazil
	Romania	Columbia
	Iran	Kenya
	Philippines	Guatemala
	Peru	El Salvador
	Panama	
	Argentina	
	Dominicans	
	Guinea	
	Nicaragua	
	Mexico	
	Malaysia	
	Indonesia	

[9]Two stage least square (and AR)

Table 3: Attainments of estimations for developing countries

Explanatory Variables	Coefficients	Statistics t	Feasibility
c	5.805672	34.05452	0.0000
S	0.460681	10.31234	0.0000
Z	0.134142	3.721386	0.0003
W	0.067719	3.931717	0.0001
H_2	2.380536	2.380536	0.0009
K_2	0.007001	2.492363	0.0001
R^2		0.997848	
Durbin-Watson Stat		1.605268	
F-Statistic		2419.612	

Conclusion

As we have stated till now, the most important factor, which has an impact on the process of economic growth, are the changes which occur in the qualitative institutional level of a country. In accordance with the explanations rendered in Chapter (IV), the neoclassic growth model initiates that the most imperative and effective factor in economic growth is the variation between the accumulation of human and physical capital. In the neoclassic growth model, it is easily assumed that in all the countries, the aspect of property rights protection is absolutely safeguarded. But in this thesis, we have brushed aside this neoclassic theory; and by utilizing the Dincer's Method (2007), the variables of property right protection levels have been supplemented to the neoclassic model. The following results were obtained from this expanded model:

• In developing countries, the property rights protection has a positive and significant effect as to the economic growth. As also illustrated in the coefficients, the coefficients of property rights in developing countries are not so high, also due to the improper government-ship and qualitative institutional characteristics of these countries

• Human capital in developing countries has a positive effect also and is significant on their economic growth. According to the derived coefficient, the human capital coefficient is not so good in developing countries, because of the fact that, education is not given importance to and suitable investment is not performed on the human capital

• The physical capital also has a positive effect in developing countries; and is noteworthy in relevance to the economic growth. As stated for the other variables, the coefficient of physical capital in the developing countries is not high. This is also because of the low and an irregular investments

• The effects of property rights, in relevance to the human capital in developing countries, has allocated a positive and major coefficient on the economic growth

• As we have mentioned in introducing the variables, it can be stated that, the effect of the savings rate as to the GDP of a country, is related in a positive manner to the degree of property rights protection

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